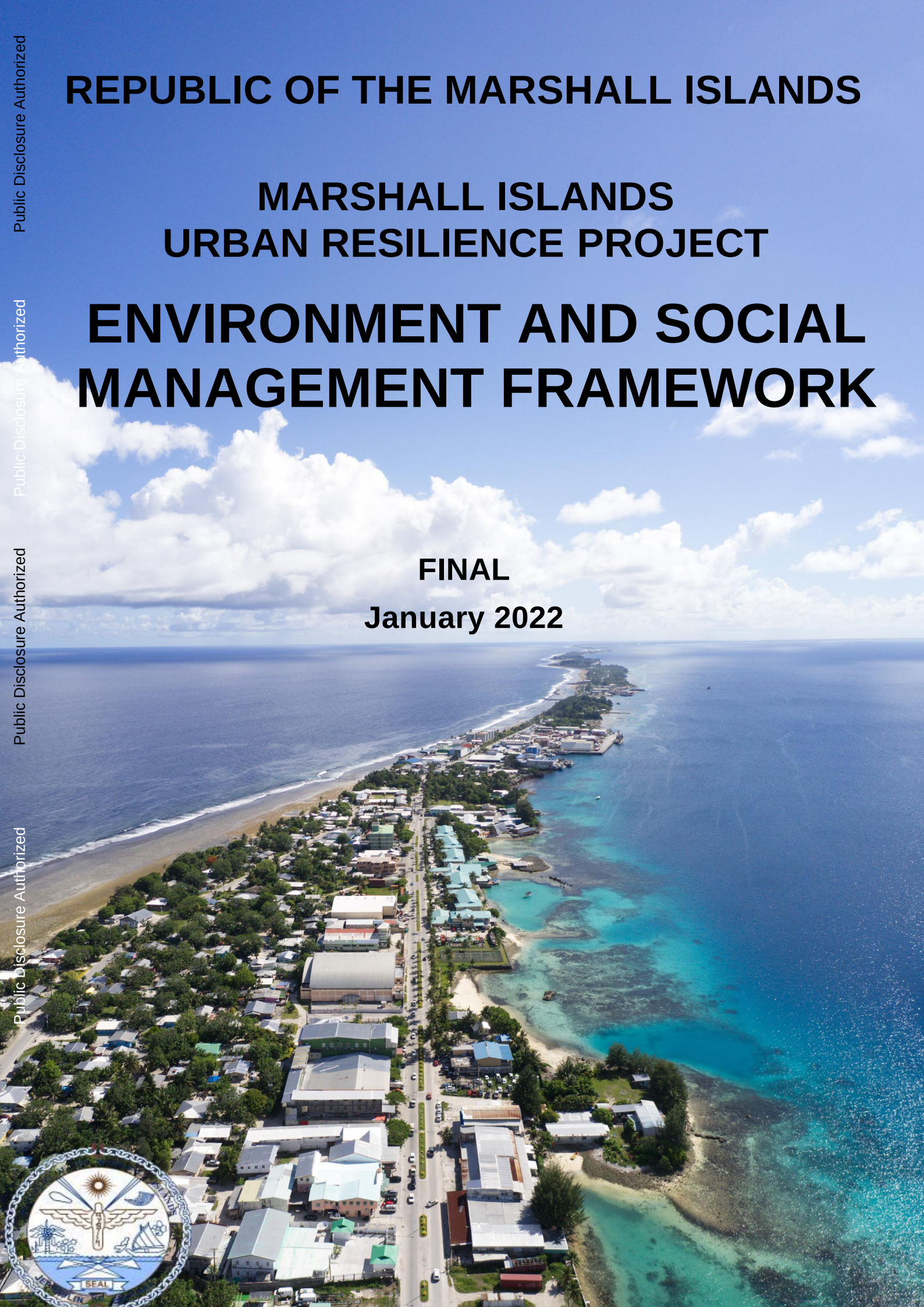
REPUBLIC OF THE MARSHALL ISLANDS

MARSHALL ISLANDS URBAN RESILIENCE PROJECT

ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK

FINAL

January 2022



MARSHALL ISLANDS URBAN RESILIENCE PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Ministry of Works Infrastructure and Utilities
as Implementing Agency

FINAL

Prepared for World Bank and the Government of the Republic of Marshall Islands by the Centralized Implementation Unit of the RMI Division of Development Assistance (DIDA)

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ABBREVIATIONS

AOI	Area of Interest
CBO	Community Based Organization
CCD	Climate Change Directorate
CESMP	Contractor Environment and Social Management Plan
CIU	Central Implementation Unit (DIDA)
CoEP	Code of Environmental Practice
CSO	Civil Society Organization
CVA	Coastal Vulnerability Assessment
DIDA	Division of International Development Assistance, MOF
E&S	Environmental and Social
EPA	Environment Protection Agency
ESA	Environmental and Social Assessment
ESCP	Environmental and Social Commitment Procedures
ESF	World Bank Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	World Bank Environmental and Social Standards
FPIC	Free, Prior and Informed Consent
GBV	Gender Based Violence
GESI	Gender Equality and Social Inclusion
GIS	Geographic Information Systems
GoRMI	Government of Marshall Islands
GRM	Grievance Redress Mechanism
HPO	Historic Preservation Office
HT	Human Trafficking
IA	Implementing Agency
IDA	International Development Association
IOL	Inventory of Loss
IOM	International Organization for Migration
LGRM	Labor Grievance Management Mechanism
MEAL	Monitoring, evaluation and adaptive learning
MEC	Marshall Islands Electric Company
MIMRA	Marshall Islands Marine Resources Authority
MOF	Ministry of Finance Banking and Postal Services
MOE	Ministry of Environment
MOICA	Ministry of Internal and Cultural Affairs
MOU	Memorandum of Understanding
MWIU	Ministry of Works, Infrastructure, and Utilities
MoF	Ministry of Finance
MURP	Marshall Islands Urban Resilience Project
NAP	National Adaptation Plan
NEPA	National Environmental Protection Act
NDMO	National Disaster Management Office
NGO	Non-Governmental Organization
NIIP	National Infrastructure Investment Plan

NSP	National Strategic Plan
OCS	Office of the Chief Secretary
OHS	Occupational Health and Safety
PAP	Project Affected Person
PIU	MURP Implementation Unit
PMU	MWIU project Management Unit
PREP II	World Bank funded Pacific Resilience Project, Phase II (WB)
PSC	Project Steering Committee
PSS	Public School System
PWD	People with Disabilities
MURP	Marshall Islands Urban Resilience Project
RF	Resettlement Framework
RMI	Republic of the Marshall Islands
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
SOGI	Sexual Orientation and Gender Identity
SIDS	Small Island Developing States
SMP	Spill Management Procedures
TOR	Terms of Reference
VA	Vulnerability Assessment
VAC	Violence Against Children
VOC	Volatile Organic Compounds
WB	World Bank
WHO	World Health Organization
WMMP	Waste Minimization and Management Procedures
WUTMI	Women United Together Marshall Islands

GLOSSARY

Disadvantaged/Vulnerable People	Disadvantaged or vulnerable groups include those who are more likely to be adversely affected by project activities, the impact of those activities, and/or less likely than others to benefit from the project. Such an individual/group is also more likely to be excluded from/unable to participate fully in the mainstream consultation process and as such may require specific measures and/or assistance to do so. This will take into account considerations relating to age, including the elderly and minors, and including circumstances where they may be separated from their family, the community or other individuals on which they depend. In the context of the Project, disadvantaged or vulnerable groups could include: i) those without legal title to the land or other asset/s, ii) single headed households , iii) people living with disabilities (PLWD) and the elderly, iv) households located in areas where works will take place, v), people living in extreme poverty or hardship.
Gender Equality and Social Inclusion (GESI) Mainstreaming	Ensures that gender equality factors and the inclusion of vulnerable and marginalized groups (such as people living with disabilities) are explicitly considered and their views and needs are fully mainstreamed (integrated) in project and activity design, implementation, monitoring, evaluation, and learning (MEL), and

	that there is equitable and meaningful participation of women and excluded groups in project decision-making processes.
Meaningful Consultation	WB ESF / ESS10: a two-way process that (a) begins early in the a project planning process to gather initial views on the project proposal an inform project design; (b) encourages stakeholder feedback, particularly as a way of informing project design and engagement by stakeholders ion the identification and mitigation of environmental and social risks and impacts; (c) continues on an ongoing basis, as risks and impacts arise; (d) is based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in a timeframe that enables meaningful consultations with stakeholders, in a culturally appropriate format, in relevant local language(s) and is understandable to stakeholders; (e) considers and responds to feedback; (f) supports active and inclusive engagement with project-affected parties; (g) is free of external manipulation, interference, coercion, discrimination, and intimidation; and (h) is documented and disclosed by the Borrower.
Free, Prior and Informed Consent (FPIC)	Under World Bank Environment and Social Standard 7 (ESS7) there is a requirement to ensure “Free Prior, and Informed Consent” which involves the collective support of affected communities on project design matters that directly affect them, which is reached through a culturally appropriate process. FPIC revolves around meaningful consultation with affected groups (see above) and is established through good faith negotiations. FPIC incorporates both an agreed process and a documented outcome. The ESF recognizes that FPIC does not require unanimity and may be achieved even if some individuals or groups object to project activities.”
Project Affected Persons (PAPs)	Includes any person, households, entity, organizations, firms or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected, (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, plantations, grazing, and/organizing land), water resources, communal fishing grounds, annual or perennial crops and trees, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, permanently or temporarily, with or without displacement.

1. INTRODUCTION

1.1 Overview

The Government of the Republic of the Marshall Islands (GoRMI) has requested support from the World Bank (WB) for the Marshall Islands Urban Resilience Project ("MURP" or "the Project") which has the Project Development Objective (PDO) "to strengthen the resilience of select human settlements in the Republic of the Marshall Islands to the impacts of natural hazards and climate change".

The Republic of the Marshall Islands (RMI) is one of the world's smallest, most isolated, and vulnerable nations. Based on preliminary data from the 2021 Census, the RMI total population is approximately 40,000 with over 50 percent living in the rapidly urbanizing areas of Majuro (Majuro atoll) and Ebeye (Kwajalein atoll). The neighboring atoll island populations are declining due to increased migration to the urban centers and to the USA. The country is spread across 29 coral atolls and five islands covering a total ocean area over 1.9 million square kilometers.

The entire population of RMI is vulnerable to climate change impacts and natural hazards because the islands and atolls are low-lying (with an average elevation of 2m above sea level) and susceptible to typhoons, storm surges, extreme high tides, flooding and droughts. GoRMI declared a national climate crisis in 2019.

Uncontrolled urbanization of Majuro is ongoing, resulting in pressure to reclaim, occupy and protect coastal areas and create demand for reef-rock and coastal sand for construction. Increasing population from urban drift and ad hoc housing and infrastructure development is increasing Majuro's vulnerability to ongoing climate and natural hazard risks such as flooding, sea level rise and storm damage. Within urban settlements, buildings may not suit current commercial, business or residential needs but construction of replacement buildings can be complicated by land tenure arrangements, leading to long delays.

The Project is directed at addressing a number of these pressing issues by providing risk informed adaptation planning, coastal resilience investments and resilient public facilities and spaces.

1.2 Environmental and Social Management Framework (ESMF)

1.2.1 Purpose and Scope of the ESMF

The WB's Environmental and Social Framework 2017 (ESF) requires that, for WB funded projects, associated environmental and social (E&S) risks need to be identified during project preparation and managed throughout project implementation.

The details of the Project will only be determined during project implementation. According to the ESF, an Environmental and Social Framework (ESMF) is to be prepared to examine the risks and impacts of a project where the risks cannot be determined until the program or subproject details have been identified.

Once the works are defined for the Project and the necessary information becomes available, the framework will be used to inform project-specific ESA and Environmental and Social Management Plans (ESMP) proportionate to potential risks and impacts for specific works and subprojects.

This ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts, as well as measures and plans to reduce, mitigate and/or offset adverse risks and impacts[1].

[1] Refer "Environmental and Social Standard 1 Assessment and Management of Environmental and Social Risks and Impacts" (ESS 1) of the ESF,

1.2.2 Links with Other Documents

This ESMF[2] is one of several instruments developed to support management of the E&S aspects of the Project. Other key E&S documents prepared for project appraisal include:

- Resettlement Framework (RF)[3],
- Stakeholder Engagement Plan (SEP)[4] including the Grievance Redress Mechanism (GRM)[5], and the
- Environmental and Social Commitment Plan (ESCP)[6].

Other E&S documents to be prepared during project implementation include:

- Labor Management Procedures (LMP)[7], and
- Sub-project ESMP(s)[8].

2. PROJECT BACKGROUND AND RATIONALE

2.1 Overview of the Marshall Islands Urban Resilience Project

The Project comprises four components: (i) Risk Informed Adaptation Planning; (ii) Coastal Resilience Investments; (iii) Resilient Public Facilities and Spaces; and (iv) Project Management and Implementation Support.

Direct beneficiaries of coastal resilience measures under Component 2 will include the population of Majuro, or approximately 28,000 Marshallese, while direct beneficiaries from resilient public facilities is approximately 1,000 people. Approximately 200 government officials will benefit directly from capacity building and training activities supported by the project. Indirect beneficiaries of risk-informed adaptation planning strategies and policies under Component 1 could benefit the entire country population of RMI.. The Project will adopt universal access requirements and participatory approaches to ensure the voices and needs of people of all ages, abilities and genders are addressed.

Achievement of the PDO will be measured by:

a) Adaptation planning is enhanced through risk-informed policies and strategies informed by project analytics (number).

b) Improved key infrastructure to reduce risks to coastal hazards and effects of climate change (meter/m of key infrastructure)

c) Increased access to more resilient and inclusive public buildings or spaces for people (number of citizens & percent of women)

[2] ESMF: An instrument that examines the risks and impacts when a project consists of a program and/or series of subprojects, and the risks and impacts cannot be determined until the program or subproject details have been identified.

[3] RF: An instrument to clarify resettlement principles, organizational arrangements, and design criteria to be applied to subprojects or project components to be prepared during project implementation

[4] SEP: An instrument to describe the timing and methods of engagement with stakeholders throughout the life cycle of the project, distinguishing between project-affected parties and other interested parties. The SEP will also describe the range and timing of information to be communicated to project-affected parties and other interested parties, as well as the type of information to be sought from them.

[5] GRM: A mechanism, process, or procedure to receive and facilitate resolution of concerns and grievances of project-affected parties arising in connection with the project, in particular about environmental and social performance. The grievance mechanism will be proportionate to the risks and impacts of the project.

[6] ESCP: An instrument to set out the material measures and actions required for the project to meet the ESSs over a specified timeframe. The ESCP will form part of the legal agreement.

[7] LMP: Procedures to set out the way in which project workers will be managed, in accordance with the requirements of national law and ESS2. The procedures will address the way in which ESS2 will apply to different categories of project workers including direct workers, and the way in which the Borrower will require third parties to manage their workers in accordance ESS2.

[8] ESMP: an instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental and social impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures.

The results indicators will be disaggregated by gender where relevant, and sub-indicators will be quantified where possible to ensure effectiveness of project monitoring and evaluation.

2.2 Project Components

2.2.1 Component 1: Risk-Informed Adaptation Planning

This component will strengthen the Government's institutional and technical capacity on risk-informed adaptation planning through enhanced spatial planning, capacity building support for implementation and compliance of the building code, and development control policies or guidance that consider disaster and climate risks. This component will support:

a) Sustainable Urban Development initiatives, including:

   i. practical guidance and awareness-raising materials for the new building codes (currently under development outside of this project scope)

   ii. preparation of development control guidelines and building/urban design standards.

   iii. climate informed guidelines for new developments (including outreach activities);

b) Strengthening for Climate and Disaster Resilient Urban planning:

   i. a risk-informed legislative and regulatory review of urban planning policy and legislation, followed by development of guidance for recommended reforms to support longer term climate and disaster resilient urban planning;

   ii. a climate and hazard informed urban design study and mapping of public spaces to inform prioritization of investments under Component 3 and assist future scaling of investments in resilient urban spaces;

   iii. capacity building and training initiatives for government stakeholders within the MWIU and other agreed stakeholders on climate-informed urban planning, zoning, policy-making, and compliance.

2.2.2 Component 2: Coastal Resilience Investments

This component will finance targeted coastal resilience measures which will protect select government infrastructure in urban areas of Majuro[9]. The targeted investments will be informed by the ongoing Coastal Vulnerability Assessment (CVA)[10] for Majuro which is being finalized under PREP II-RMI (P160096). Potential physical investments, informed by the CVA, will be selected and prioritized in accordance with an agreed prioritization criteria, adopted in the Project Operations Manual (POM). Investments will be prioritized to protect key government infrastructure, and to ensure disruption to key government infrastructure is minimized during coastal flooding.

This component will support:

(i) detailed engineering design, ancillary technical analysis (including but not limited to detailed technical assessments, site investigations, modeling, environmental and social management studies and operations and maintenance plans to support identified priority investment options) and construction supervision;

(ii) prioritized coastal works investments[11] (for example: seawalls, dikes or embankments, minor reclamation, berms, revetments, offshore breakwater, nature based solutions etc.) that meet the project's agreed design standards and protect

[9] This project is specifically targeting physical investments in Majuro atoll, home of 52% of RMI's population, and the urban center of RMI. Coastal resilience investments will complement the World Bank's ongoing investments in RMI's secondary urban centre – Ebeye - under the Pacific Resilience Program II (PREPII – P160096).

[10] The CVA is being delivered under the PREP 2 (P160096). The final study will be delivered early during the RMI-URP's implementation, and will, among other things, provide conceptual designs and preliminary costs estimates for priority coastal protection investments in Majuro.

[11] Coastal works will be prioritized based on the findings of the ongoing Majuro CVA, in accordance with prioritization criteria which will be adopted in the Project Operations Manual (POM)

vulnerable government infrastructure or access to vulnerable government infrastructure; and

(iii) capacity building and training on coastal resilience and adaptation solutions.

2.2.3 Component 3: Resilient Public Facilities

This component will finance investments that are demonstrative of resilience, inclusive, and sustainable standards that are expected to be achieved in future public buildings in RMI, and will build on and be demonstrative examples from outputs from Component 1.

An identified priority under this component is the construction of a resilient government facility in Majuro, which will accommodate critical components of the National Disaster Management Office (NDMO) and the Ministry of Finance, as well as warehouse space for emergency goods and supplies[12]. This facility has been identified by the government as a critical piece of urban infrastructure to ensure continuity of service following a disaster event and to strengthen the Government's preparedness for emergency management. Design support for this piece of infrastructure will be financed under the PREP 2 (P160096). The Resilient Government Facility will meet agreed resilience standards to mitigate against future hydrometeorological and geophysical hazards, and serve as an example of good sustainable development practice in accordance with the guidance developed under Component 1. Select pilot investments to demonstrate the benefits of climate and disaster resilient planning for adaptation will also be financed, which will be consistent with the outputs of Component 1. The investments may include demonstration projects in adaptation planning, urban improvements, or retrofitting of existing public buildings.

This component will support:

(i) detailed engineering designs, construction supervision services, and operations and maintenance plans for up to three (3) select facilities, including a multi-functional resilient building in Majuro and critical public buildings that meet the project's agreed design standards and enhance Marshallese cultural identity;

(ii) land preparation activities and civil works for strengthening, upgrading and construction of public buildings and facilities to reduce disaster vulnerability, increase climate resilience, and improve functionality and service standards (including universal access and climate-informed design);

(iii) pilot public space investments in support of climate change adaptation, such as small-scale ecosystem-based approaches or water-sensitive urban design measures (i.e., vegetated buffer zones, rain gardens, bioswales, mangrove restoration, and vegetated bunds), raising dwellings/buildings or land (e.g., building stilts or constructed mounds), or urban improvements (e.g., for signage, lighting, pedestrian amenity, and landscaping).

2.2.4 Component 4: Project Management and Implementation Support

This component will help the Government establish and operationalize the proposed project through a dedicated Project Implementation Unit (PIU). It intends to support the day-to-day coordination, management, and implementation of the project, while building institutional capacity to sustain investments beyond the project's closure such as through technical training and asset management support. This Component will support:

(i) the recruitment of consultants to support the implementation of all project activities, such as a Project Manager, Engineer, Contract Manager and technical and administrative support;

(ii) monitoring, review, and evaluation of the project;

[12] This building has been identified as a priority by Government, as the facility is critical for the Government's emergency response to future disasters and would help ensure continuity of key government services following disaster events. Accordingly, PREP 2 is financing the design of this building, which will meet agreed resilience standards to mitigate against future hydrometeorological and geophysical hazards

(iii) capacity building and training for operations and maintenance, as well as risk-informed asset management; and

(iv) project-related incremental operating costs.

These activities will be implemented through consulting services (individual) and incremental operating costs.

2.3 Implementation Arrangements

The Project will be implemented by the MWIU through a Project Implementation Unit (PIU), which would be established within the MWIU and include a Project Manager, Project Engineer, Project Officer, and relevant technical consultants. Support for Fiduciary and E&S Risk Management will be provided by the Centralized Implementation Unit (CIU). Figure 1 illustrates proposed implementation arrangements.

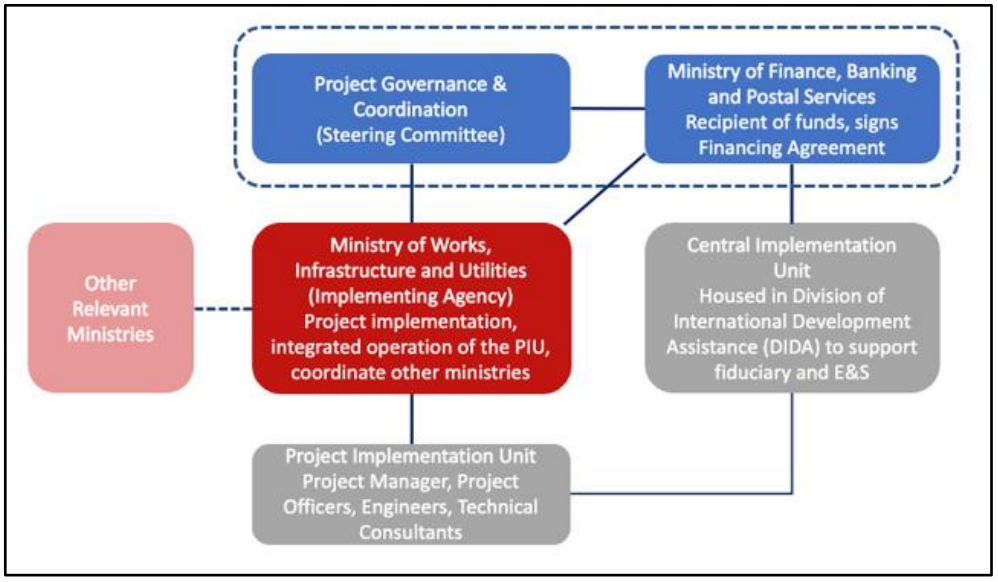

Figure 1: Implementation Arrangements for the Project

3. LEGISLATIVE & REGULATORY FRAMEWORK

3.1 RMI Legislation, Regulations and Policy Requirements

3.1.1 Overview

This section of the ESMF describes the broad legal and regulatory framework applying to all environmental and social issues concerning the Project.

In overall terms, the RMI is governed under a mixed parliamentary-presidential system as set forth in its Constitution. Elections are held every four years, with each of twenty-four constituencies electing one or more representatives (senators) to the lower house of RMI's bi-cameral legislature, the Nitijela. The President, who is head of state as well as head of government, is elected by the 33 senators of the Nitijela.

Legislative power lies with the Nitijela. The upper house of Parliament, called the Council of Iroij, is an advisory body comprising twelve tribal chiefs. The executive branch consists of the President and the Presidential Cabinet, which consists of ten ministers appointed by the President with the approval of the Nitijela. The twenty-four electoral districts into which the country is divided correspond to the inhabited islands and atolls.

Figure 2 sets out a schematic overview of the RMI legal E&S policy framework which will apply to the Project. Each element is discussed below.

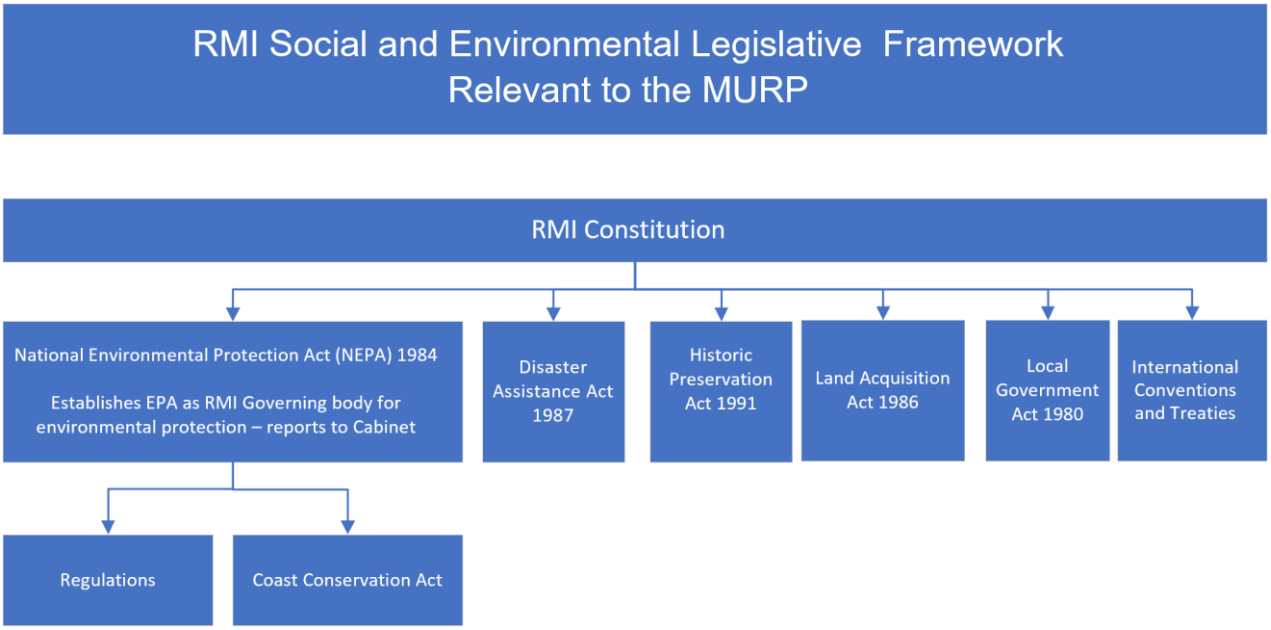

Figure 2: RMI Environmental and Social Legislative Framework

3.1.2 RMI Constitution

The Constitution of RMI, which came into effect in 1979 with amendments in 1995, sets forth the legal framework for the governance of the Republic. The Preamble to the RMI Constitution states:

> *"All we have and are today as a people, we have received as a sacred heritage which we pledge ourselves to safeguard and maintain, valuing nothing more dearly than our rightful home on the islands within the traditional boundaries of this archipelago."*

From an E&S perspective, the Constitution confirms that the GoRMI has a responsibility to safeguard and maintain heritage and ensure that the islands continue to provide a sustainable home to the people of the Marshall Islands for generations to come.

The Marshall Islands has a bicameral legislature consisting of the lower house or Nitijela (legislative power) and the upper house or Council of Iroij (customary power). The legal system comprises legislature, municipal, common and customary laws.

The Judiciary of the RMI

The Constitution states that the judicial power of the RMI

> *"…shall be independent of the legislative and executive powers and shall be vested in a Supreme Court, a High Court, a Traditional Rights Court, and such District Courts, Community Courts and other subordinate courts as are created by law, each of these courts possessing such jurisdiction and powers and proceeding under such rules as may be prescribed by law consistent with the provisions of this Article."*

Resettlement

With regards to resettlement the Constitution notes that;

> *(3) The jurisdiction of the Traditional Rights Court shall be limited to the determination of questions relating to titles or to land rights or to other legal interestsdepending wholly or partly on customary law and traditional practice in the Republic of the Marshall Islands.*

Traditional Land Tenure Rights

The Constitution preserves the traditional rights of land tenure, as indicated in 'Article II:

> *Nothing in Article II shall be construed to invalidate the customary law or any traditional practice concerning land tenure or any related matter in any part of the Republic of the Marshall Islands, including, where applicable, the rights and obligations of the Iroijlaplap, Iroijedrik, Alap and Dri Jerbal.*[13]
>
> *Without prejudice to the continued application of the customary law pursuant to Section 1 of Article XIII, and subject to the customary law or to any traditional practice in any part of the Republic, it shall not be lawful or competent for any person having any right in any land in the Republic, under the customary law or any traditional practice to make any alienation or disposition of that land, whether by way of sale, mortgage, lease, license or otherwise, without the approval of the Iroijlaplap, Iroijedrik where necessary, Alap and the Senior Dri Jerbal of such land, who shall be deemed to represent all persons having an interest in that land.*

3.1.3 Disaster Assistance Act 1987

The purpose of this Act is to reduce vulnerability of people and communities of RMI to damage, injury, and loss of life and property resulting from natural or manmade catastrophes; to clarify the role of the Cabinet and local governments in the prevention of, preparation for, response to, and recovery from disaster; to authorize and provide for coordination of activities relating to disaster prevention, preparedness, response, and recovery between agencies.

The Act requires that "*Every person shall conduct himself and keep and manage his affairs and property in ways that will reasonably assist and will not unreasonably detract from the ability of the Government of the Marshall Islands and the public to successfully meet disasters*".

3.1.4 Historic Preservation Act 1991

The purpose of this Act is to promote the preservation of the historic and cultural heritage of the RMI.

The Act provides for the Historic Preservation Office (HPO) to be responsible for issuing or denying permits, for use, access, and development of land containing cultural and historic properties, and for the taking of any artifact of cultural or historical significance from the RMI for cultural exchange, scientific identification, or donation to a bona-fide non-profit organization recognized on the basis of its cultural significance to the Republic

A series of regulations pursuant to this Act and were approved by the GoRMI Cabinet in January 1992:

- Regulations Regarding the Conduct of Archaeological and Anthropological Research 1992
- Regulations Governing the Taking and Export of Artefacts 1992
- Regulations Governing Land Modification Activities 1992
- Regulations Governing the Disposition of Archaeologically Recovered Human Remains 1992
- Regulations Governing Access to Prehistoric and Historic Submerged Resources 1992

Of relevance to the Project, the Regulations Governing Land Modification Activities require every developer, private or corporate, to announce to the HPO any construction affecting the soil at least 30 days in advance of construction. Notifiable activities include any kind of earthmoving and land fill as well as land and vegetation clearing using machinery.

HPO staff, or qualified personnel employed to do so by the developer, will then conduct a survey to determine whether archaeological, historical or traditional sites are present or not. If such sites are found, and if the HPO deems the sites significant for preserving the heritage of the RMI, the HPO may recommend that the development be relocated. If this

[13] All classes of land rights: Iroijlaplap (high chief); Iroijedrik (lower chief); Alap (head of commoner/worker clan); and Dri Jerbal (commoner/worker)

is not feasible, an excavation must be undertaken in order to recover most of the data contained in the site. Thereafter the development can begin.

The costs for application processing, survey, excavation, and data analysis will be borne by the developer. Undue hardship can be claimed if the development is for a private dwelling or a small restaurant. In such cases the HPO will undertake the survey and excavations and will bear the costs.

Provisions against violations allow for a fine of $10,000 per day and authorize the confiscation of all equipment used if the activity was conducted with the purpose to destroy or impair the site or to evade the provisions of the regulations. If a site is destroyed, or severely impaired to avoid the mitigation process, the Historic Preservation Act further allows for a fine to be imposed equivalent of the cost of a complete data recovery and study exercise.

The Regulations Governing the Disposition of Archaeologically Recovered Human Remains stipulate that burials shall not be disturbed willfully unless permission has been given according to the Historic Preservation Act (1991) and other executing regulations. If human remains are found, then these shall be examined and described, and thereafter be reburied at the earliest possible moment. The intent of the regulations is to ensure that human remains are treated with the dignity and respect they deserve, and that it shall be avoided that human remains are permanently stored on the shelves of museums or other institutions

3.1.5 Land Acquisition Act 1986

The RMI Land Acquisition Act 1986 makes provision for the acquisition of lands and servitudes for public use for payment of just compensation in terms of Article II, Section 5 of the Constitution of the Marshall Islands and to provide for matters connected therewith and incidental thereto.

The Act defines “land” to include “things attached to the earth”. It also defines “persons interested”, with reference to land, to not include a monthly tenant. The act covers the general provisions, preliminary investigation and declaration of intended acquisition, proceedings in court, payment of compensation, possession and disposal, divesting of land and general items pertaining to such land acquisition. The following points summarize the Parts of this Act:

- The **Preliminary Investigation and Declaration of Intended Acquisition** details the process for investigations for selecting land, compensation for any damage done during investigations and issuing notices of intended acquisition.
- Where the Minister decides that particular land or a servitude in any area should be acquired under this Chapter [**Proceedings in Court**], he shall direct the Attorney-General to file an application in the High Court praying for a declaration by the High Court, that such taking of land for public use is lawful. The Proceedings in Court details the process for determination by the High Court, the procedure before the High Court, the assessment of compensation.
- The **Payment of Compensation** details tender and payment, compensationwhich cannot be paid, renunciation of right to compensation, interest on compensation, exchange, finality as to payment of compensation and exchangewith other landowners.
- **Possession and Disposal** details the vesting order for taking possession of land and acquiring servitudes, effect of vesting order, possession, immediate possession on urgency and immediate possession after proceedings commenced.
- **Divesting of Lands** details the divesting orders.
- **General** details the compulsory acquisitions authorized by any other written law, abandonment of acquisition proceedings, serving of notices, application of constitutional provisions and payment. Of particular note in this Part is that:

  Where any other written law authorizes the acquisition of land under this Chapter and the Minister decides that any land is reasonably required under such other written law by any authority, person or body of persons, the purpose for which that land is required shall be deemed to be a public use and the provisions of this Chapter shall apply accordingly to the acquisition of that landfor that authority, person or body of persons.

The Act does not cover valuation methodologies.

3.1.6 Local Government Act 1980

In 1980, the *Local Government Act* was enacted in order to implement Article IX of the Constitution by providing for the manner and operation of local governments. There is one local council on Majuro headed by a mayor.

3.1.7 Planning and Zoning Act 1987 [10 MIRC Ch. 2]

The Planning and Zoning Act 1987 is an Act to provide for:

- Planning in land water use (sic);
- Promotion of the health, safety and general welfare of the people;
- Creation of zones in municipal areas in order to lessen the congestion and to secure safety from fire and other hazards; and
- Regulation and control of the construction of buildings and the prevention of overcrowding of land.

Key provisions of the Act include the following:

- Section 221 - The Act only applies to the local government Councils of Majuro Atoll and Kwajalein Atoll.
- Sections 204-205 - Requires every local government Council to establish a Planning Commission. A Commission is designed to function as an advisory body to the local government Council in all matters relating to planning and zoning.
- Section 206 - Requires every local government Council to establish a subsidiary Planning Office. The Planning Office functions under the Council for the administration of the day-to-day affairs of the Commission. All local government councils must have a planning office with a Director of Planning who has a duty "to carry out and execute all matters relating to planning and zoning" and "to grant, renew or revoke licenses for the construction of any buildings, houses or other structures in accordance with the law or ordinances".
- Sections 210-211 - Majuro Atoll may be divided into zones prepared by the local Council in consultation with the Government Chief Planner. The objectives of these zones include:
- promotion of a harmonious interrelationship of land use;
- the preservation of the natural landscape and environment; and
- facilitation of appropriate locations for recreational areas and parks.
- Section 209 - Local government councils have authority to make ordinances around restrictions on buildings.
- Section 213 - Building permits are also required.
- Part V - Provides for the adoption of a Marshall Islands Building Code by the Minister of Public Works.

In practice the Planning and Zoning Act 1987 remains largely unimplemented, although preparation of the Marshall Islands Building Code is being carried out under the provisions of this Act (See Section 3.1.10 of this ESMF).

3.1.8 Coast Conservation Act (CCA) 1988

This Act makes provision for a survey of the coastal zone and the preparation of a coastal zone management plan; to regulate and control development activities within the coastal zone; to make provisions for the formulation and execution of schemes for coast conservation.

'Coastal Zone' means 'the area laying within a limit of twenty five (25) feet landwards of the mean high water line and a limit of two hundred feet seawards of the mean low water line'.

Part IV sets out a Permit procedure for obtaining permission to engage in any development activity within the coastal zone. It requires the proposed activity to:

(a) be consistent with the Coastal Zone Management Plan and any regulations made to give effect to such Plan,

(b) not otherwise have any adverse effect on the stability, productivity and environmental quality of the Coastal Zone.

(c) Furnish an environmental impact assessment report.

Part V 319 empowers the Director, or any officer authorized by him in writing, to issue permits subject to such conditions as he may impose having regard to the Plan, for the occupation, for any period not exceeding three (3) years of any part of the foreshore or bed of the sea lying within the Coastal Zone.

A **National Coastal Management Framework** under the CCA was developed by the RMIEPA in 2008. The Coastal Management Plan makes recommendations for various topics (e.g. coastal development, resource utilization, data collection, legal management and local coastal management programs to deal with both urbanand outer islands), which relate to the implementation of climate change adaptation options. This plan sets out the permitting process and requirements that are prerequisites for the implementation of activities in the Coastal Zone.

3.1.9 National Environmental Protection Act 1984 (NEPA)

The National Environmental Protection Act 1984 (NEPA) provides for the establishment of a National Environmental Protection Authority (RMIEPA) for the protection and management of the environment.

The RMI Environmental Protection Authority (RMIEPA), established under the National Environmental Protection Act (NEPA), is the governing body for environmental protection in the RMI. The primary purpose of the RMIEPA is to preserve and improve the quality of the environment of the RMI, and to that end, the Act specifies the following objectives for the RMIEPA:

a) to study the impact of human activity including redistribution, cultural change, exploitation of resources and technological advances on the environment;

b) to restore and maintain the quality of the environment;

c) to use all practicable means including financial and technical assistance to foster and promote the general welfare of the people by creating conditions under which mankind and nature can co-exist in productive harmony;

d) to improve and coordinate consistently with other essential considerations of National policy, governmental plans, functions, and programs and resources to as to prevent, as far as practicable, any degradation or impairment of the environment;

e) to regulate individual and collective human activity in such manner as will ensure to the people safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

f) to attain the widest possible range of beneficial uses of the environment without degradation or impairment thereof and other undesirable consequences to the health and safety of the people; and

g) to preserve important historical, cultural and natural aspects of the nation’s culture and heritage, maintaining at the same time an environment which support the multiplicity and variety of individual choice.

The NEPA is supported and further elaborated in a set of 8 regulations for protection of surface and marine waters, and air quality, and managing of potential impacts from earth works, sanitation systems, waste and new infrastructure development. The Act, and these regulations along with the Coast Conservation Act 2008, provides the framework for the protection of resources and environmentally sustainable development in RMI. The eight (8) regulations are –

i. Earthmoving Regulation 1988 (with amendments in 1994 and 1998)

ii. Solid Waste Regulations 1989

iii. Toilet Facilities and Sewage Disposal Regulation 1990

iv. Marine Water Quality Regulation1992

v. Public Water Supply Regulation 1994

vi. Environmental Impact Assessment Regulation 1994

vii. Ozone Layer Protection Regulation 2004

viii. Pesticides and Persistent Organic Pollutants Regulation 2004.

The three regulations of specific relevance to the Project are the EIA Regulation 1994, the Earthmoving Regulation 1984 and the Marine Water Quality Regulation 1992. Key considerations of each regulation are summarized in Figure 3.

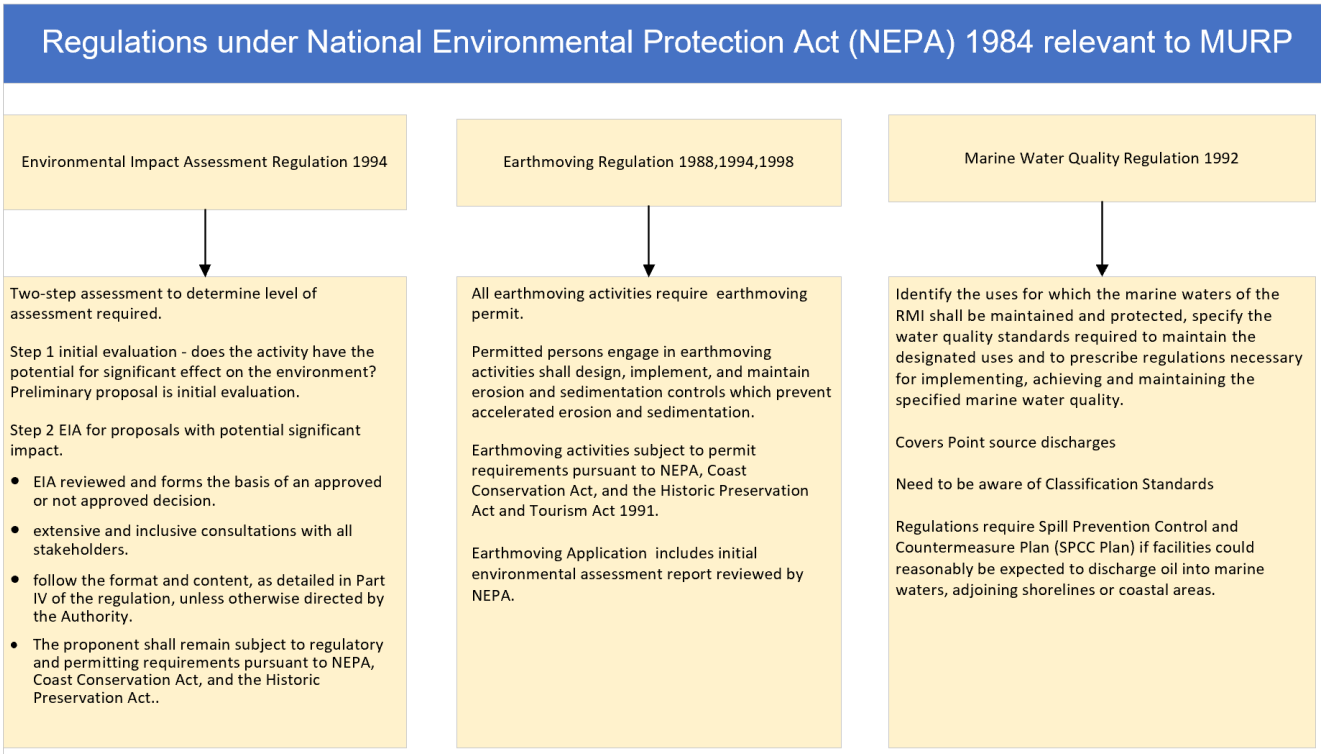

Figure 3: Regulations under the National Environmental Project Action

Applications for approval to undertake development works are to be made to the RMIEPA, and are reviewed through a Preliminary Environmental Assessment (PEA) process. Step 1 of the process is an initial evaluation of the PEA to determine if the activity has the potential for significant effect on the environment. This PEA can take the form of a letter in the event of very minor works such as geotechnical sampling. Step 2 is either the issuance of an Earthmoving Permit with, or without, conditions (e.g. Minor and some Major applications), or a requirement for an EIA in the case of proposals (e.g. Major applications) assessed to have potential significant impact which will be reviewed and form the basis of an approved decision with conditions, or a not-approved decision. Conditions pre-or post-EIA may include a requirement for an Environmental Management Plan (EMP). In cases where a proponent EMP has been drafted prior to the submission of an Earthmoving Permit Application, it may require modification to meet the conditions of approval.

Environment is defined in the National Environmental Protection Act 1984 as follows:

> *(d) "environment" means the physical factors of the surroundings of human beings and includes the land, soil, water, atmosphere, climate, sound, odors, tastes and the biological factors of animals and plants of every description situated within the territorial limits of the Republic including the exclusive economic zone.*

This definition doesn't include reference to social impact mitigation, however the objectives of the RMIEPA include the following in respect of social issues:

(c) to use all practicable means including financial and technical assistance to foster and promote the general welfare of the people by creating conditions under which mankind and nature can coexist in productive harmony.

The EIA Regulation sets out the content of the Environmental Impact Assessment which is to address the following matters (Regulation 23):

1. Direct environmental effects and their significance
2. Indirect environmental effects and their significance
3. A description of the relationship between short-term uses of the environment and the maintenance an enhancement of long-term productivity
4. Consideration of cumulative environmental impacts
5. Natural or depletable resources requirements and the potential for their conservation
6. Urban quality, scenic quality, historic and cultural resources, and the design of the built environment
7. Impact on population and human uses of the land
8. Alterations to ecological systems
9. Projected pollution of the environment
10. Means to mitigate adverse environmental impacts
11. Description of any unavoidable adverse environmental impacts
12. An analysis of the costs and benefits that may result from the proposed development activity and
13. Identification of any irreversible or irretrievable commitments of resources required for the proposed development activity.

The Earthmoving Regulations require developers to apply design erosion control, sedimentation control and cultural preservation measures to effectively prevent accelerated erosion, accelerated sedimentation and adverse impact on cultural resources.

The developer is required to:

- Set out the erosion and sediment control measures in a plan (Erosion and Sediment Control Plan) and make it available at all times at the site of the activity and file the plan with the RMIEPA.
- Attend any meetings as requested by the RMIEPA together with other interested parties to determine the scope of the plan, and to
- Obtain the services of a person trained, experienced and certified, if applicable, in erosion and sedimentation control methods and techniques to prepare the erosion and sediment control plan.
- Consider in the erosion and sedimentation control plan all factors that contribute to erosion and acceleration.

On completion the developer is required to:

- Stabilize the areas disturbed to prevent accelerated erosion and sedimentation upon completion of the project.
- Remove all unnecessary or unusable control facilities, grade the area and stabilize the soil upon completion of stabilization.

Regulation 8 of the Earthmoving Regulations 1989 stipulates the following matters to be included in the Erosion and Sediment Control Plan:

1. the topographic or hydrographic features, or both, of the project area;
2. the types, depth, slope and area of the soils, coral and reef;
3. the original state of the area as to plant and animal life and ecosystem functioning;
4. whether any living coral reef, sea grass bed, mangrove, freshwater lake, sandy beach, or other valuable ecosystem may be affected by the earthmoving;
5. the proposed alteration to the area;
6. the amount of runoff from the project area;
7. the staging of earthmoving activities;
8. temporary control measures and facilities for use during earthmoving activity;
9. permanent control measures and facilities for long-term protection;
10. a maintenance program for the control facilities including disposal of materials removed from the control facilities or project area;

11. whether a designated coastal area of special concern is in the vicinity;
12. whether cultural resources are in the vicinity;
13. whether designated tourism or fishery resources are in the vicinity; and
14. the presence and vulnerability of nearby beaches to erosion.

3.1.10 RMI Building Code

For many years RMI has been without a building code although the Planning and Zoning Act of 1987 calls for a provision of one: Title 10 Part V Section 222 stipulates that the Minister of Works, Infrastructures, and Utilities or his designee shall formulate and propose for adoption rules and regulations establishing minimum standards for the construction of buildings, or classes of buildings and installation of appurtenances thereto.

In the wake of Typhoon Nangka in 2015, many residential homes and other types of government infrastructure were assessed, and the estimated loss and damage was valued at approximately US$8 million. Much of this damage was attributed to the lack of building code and absence of planning and zoning throughout RMI coupled with limited land space. After this event the Office of the Chief Secretary through the JNAP unit in collaboration with DIDA and the UN Mission in New York launched a concept note to seek support for the development of a building code.

Work on developing a National Building Code commenced in late 2016 linking to the RMI Agenda 2020 Framework on top government priority reform to improve infrastructure planning and development and management.

The Building Code project was spearheaded by the Chief Secretary's Office National Disaster Management Office (NDMO) - Joint National Action Plan (J-NAP) with technical assistance of the MWIU-PMU through the "Building Infrastructure Resilience Component 1- Development of the RMI National Building Code" funded by the Government of Italy.

This work has culminated in "The National Building Code of the Republic of the Marshall Islands 2021 Edition".

The Code is presently in a draft form and is being formatted to suit RMI's needs and international requirements. Once finalized the Code will be rolled out under MWIU for implementation by GoRMI.

The Code update will incorporate requirements for RMI in terms of standards for resilience and flood protection relating to climate change.

3.2 International Standards and Guidelines

3.2.1 International Environmental Agreements

RMI is a signatory to a number of international and regional agreements and conventions, which are related to the environment. Those that may be relevant to the Project include:

- 2000 Cartagena Protocol on Biosafety on the Convention on Biological Diversity;
- 1992 Convention on Biological Diversity;
- 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat;
- 1995 Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region, Waigani, Papua New Guinea;
- 1990 International Convention on Oil Preparedness and Co-operation.
- United Nations (UN) 64th General Assembly Resolution on the Human Right to Water and Sanitation;
- UN Framework Convention on Climate Change.

3.2.2 World Bank Environmental and Social Framework

As a condition of WB financing for the Project, the MWIU will be required to implement the Project in a manner consistent with the WB ESF. Under the ESF, matters that need to be assessed and addressed from a risk management perspective include: E&S factors, health

and safety, gender equality and social inclusion (GESI), labor conditions, land and cultural heritage laws and policies as a minimum.

The following Environmental and Social Standards (ESS), as set out in the ESF, are considered relevant for the Project:

- 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.
- ESS8: Cultural Heritage.
- ESS10: Stakeholder Engagement.

The Project has been assessed as having overall substantial environmental and social risks. It includes physical works in Majuro that will result in risks ranging from low to substantial risk. The low to moderate risk works include building renovations and small scale investments including new buildings. More substantial risk relate to works such as buildings sea walls can modify coastal areas and potentially adversely impacting natural habitats, ecosystem services (freshwater lens, natural protection from wave and wind erosion, food gathering areas) and cultural heritage (cemeteries, sacred sites).

3.2.3 World Bank General Environmental, Health & Safety Guidelines

The World Bank Group's *General Environmental, Health, and Safety Guidelines 2007 (EHS Guidelines*) represent good international practice for managing environmental impacts and community and occupational health and safety (OHS) risks. The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs.

3.2.3.1 Environmental - Air Emissions and Ambient Air Quality

This guideline applies to projects that generate emissions to air and provides an approach to the management of significant sources of emissions including specific guidance for assessment and monitoring of impacts. The key potential source of air emissions associated with the Project is in relation to potential cement plant or dust pollutants emissions generated from construction activities and/or machinery usage.

Projects with significant sources of air emissions and potential for significant impacts to ambient air quality should prevent or minimize impacts by ensuring that:

- Emissions do not result in pollutant concentrations that exceed relevant ambient quality guidelines and standards by applying national legislated standards, or in their absence, the current WHO Air Quality Guidelines (see Table 1); and
- Emissions do not contribute a significant portion of relevant ambient air quality guidelines or standards. As a general rule, this Guideline suggests 25 percent of the applicable air quality standards to allow additional, future sustainable development in the same airshed.

Parameter	Averaging Period	Guideline Period in µg/m^3
Sulfur dioxide (SO_2)	24-hour	125 (Interim target-1) 50 (Interim target-2) 20 (guideline)
	10 minute	500 (guideline)
Nitrogen dioxide (NO_2)	1-year	40 (guideline)
	1 hour	200 (guideline)

Parameter	Averaging Period	Guideline Period in µg/m^3
Particular Matter PM_{10}	1-year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline)
	24-hour	150 (Interim target-1) 100 (Interim target-2) 75 (Interim target-3) 50 (guideline)
Particular Matter $PM_{2.5}$	1-year	35 (Interim target-1) 25 (Interim target-2) 15 (Interim target-3) 10 (guideline)
	24-hour	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) 25 (guideline)
Ozone	8-hour daily maximum	160 (Interim target-1) 100 (guideline)

Notes: PM 24-hour value is the 99th percentile. Interim targets are provided in recognition of the need for a staged approach to achieving the recommended guidelines.

Table 1: WHO ambient air quality guidelines (WHO 2005)

Point sources are characterized by the release of air pollutants typically associated with the combustion of fossil fuels such as nitrogen oxides (NO_X), sulfur dioxide (SO_2), carbon monoxide (CO), and particulate matter (PM) as well as other air pollutants including certain volatile organic compounds (VOCs). Emissions from point sources should be avoided and controlled according to good international industry practice (GIIP) through the combined application of process modifications and emissions controls, such as regular engine maintenance and repair, use of modern vehicle fleet with emissions control devices such as catalytic converters and driver education programs.

Fugitive source air emissions refer to emissions that are distributed spatially over a wide area and not confined to a specific discharge point. The most common pollutant involved in fugitive emissions is dust or particulate matter (PM). This is released during certain operations such as transport and open storage of solid materials and from exposed soil surfaces including unpaved roads. Recommended prevention and control of these emissions sources include use of dust control methods such as covers, water suppression, or increased moisture content for open materials storage piles, and use of water suppression for control of loose materials on paved or unpaved road surfaces.

Consideration will need to be given to both point source (e.g. from cement plants) and fugitive (e.g. dust from stockpiles, exposed soils) emissions for the Project.

3.2.3.2 Environmental - Hazardous Materials Management

This guideline applies to projects that use, store, or handle any quantity of hazardous materials defined as materials that represent a risk to human health, property or the environment due to their physical or chemical characteristics.

The guideline provides guidance in relation to both General Hazardous Materials Management: (where hazardous materials are handled or stored) and Management of Major Hazards (storage or handling hazardous materials at, or above, threshold quantities

thus requiring special treatment to prevent accidents such as fire, explosions, leaks or spills and to prepare and respond to emergencies).

The overall objective of hazardous materials management is to avoid or, when avoidance is not feasible, minimize uncontrolled releases of hazardous materials or accidents during handling, storage and use. This objective can be achieved by:

- Establishing hazardous materials management priorities based on hazard analysis of risky operations identified through ESA;
- Where practicable, avoiding or minimizing the use of hazardous materials;
- Preventing uncontrolled releases of hazardous materials to the environment or uncontrolled reactions that might result in fire or explosion; ·
- Using engineering controls (containment, automatic alarms and shut-off systems) commensurate with the nature of hazard; and
- Implementing management controls (procedures, inspections, communications, training, and drills) to address residual risks that have not been prevented or controlled through engineering measures.

Waste Minimization and Management Procedures (WMMP) and Spill Management Procedures (SMP) are to be prepared by the Contractor in accordance with Appendix B which sets out strategies and actions required to reduce potential health and environmental risks associated with waste generation and disposal, including hazardous materials (discussed further in Section 6.5.1.9), management to avoid spills and other environmental releases, and identify opportunities for construction waste reuse.

3.2.3.3 Environmental - Waste Management

These guidelines apply to projects that generate, store, or handle any quantity of waste. Solid (non-hazardous) wastes generally include any garbage, refuse. Hazardous waste shares the properties of a hazardous material (e.g. ignitability, corrosivity, reactivity, or toxicity), or other physical, chemical, or biological characteristics that may pose a potential risk to human health or the environment if improperly managed.

Waste management should be addressed through waste management procedures that address issues linked to waste minimization, generation, transport, disposal, and monitoring.

Consideration to the management of hazardous materials will be required for the Project.

A WMMP is to be prepared by the Contractor which sets out strategies and actions required to reduce potential health and environmental risks associated with waste generation and disposal, as well as identify opportunities for material recycling or reuse (discussed further in Section 6.5.1.10).

3.2.3.4 Environmental - Noise

Noise prevention and mitigation measures should be applied where there is the potential for noise levels to exceed applicable guidelines at sensitive receptors.

The preferred method for controlling noise from stationary sources is to implement noise control measures at source. Methods for prevention and control of sources of noise emissions depend on the source and proximity of receptors. Noise reduction options that should be considered include: Selecting equipment with lower sound power levels; mandatory mufflers on engine exhausts and compressor components; limiting hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas; Re-locating noise sources to less sensitive areas to take advantage of distance and shielding; Taking advantage of the natural topography as a noise buffer during facility design; and developing a mechanism to record and respond to complaints through the Grievance Mechanism (GM) established for the Project (outlined in the RF and SEP).

Noise impacts should not exceed the levels presented in **Table 2**, or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.

Receptor	One Hour L_{Aeq} (dBA)	
	Daytime (07:00 – 22:00)	Daytime (22:00 – 07:00)
Residential; industrial; educational	55	45
Industrial; commercial	70	70

Table 2: WHO noise level guidelines (WHO 1999)

3.2.3.5 Worker Health and Safety

The fundamental premise for OHS under the EHS Guidelines is that:

> *"Employers and supervisors are obliged to implement all reasonable precautions to protect the health and safety of workers"; and that*
>
> *"Companies should hire contractors that have the technical capability to manage the occupational health and safety issues of their employees…".*

The OHS strategy in the EHS Guidelines is that preventive and protective measures should be introduced according to the following order of priority:

(a) Eliminating the hazard by removing the activity from the work process.

(b) Controlling the hazard at its source through use of engineering controls.

(c) Minimizing the hazard through design of safe work systems and administrative or institutional control measures.

(d) Providing appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.

All workers engaged in the Project will need to be covered under the terms of the EHS Guidelines. Contractors will be required to provide Worker H&S Procedures that address key project requirements in relation to worker health and safety (Section 6.5.2.7 and Appendix B). All other project workers will work under the OHS controls to be prepared in the LMP.

3.2.3.6 Community Health and Safety

This guidance specifically addresses some aspects of project activities taking place outside of the traditional project boundaries but nonetheless related to the project operations. These issues may arise at any stage of a project life cycle and can have an impact beyond the life of the project and includes issues such as:

- **Water Quality** - Groundwater and surface water represent essential sources of drinking water which may be impacted by project activities involving discharges.
- **Traffic Safety** - Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that protect project workers and road users. Road safety initiatives proportional to the scope and nature of project activities should include measures such as:
  - Adoption of best transport safety practices (e.g. emphasizing safety aspects among drivers, improving driving skills);
  - Use of speed control devices (governors) on trucks;
  - Regular maintenance of vehicles;
  - Employing safe traffic control measures, including road signs and flag persons to warn of dangerous conditions; and
  - Planning and timing of road use for project activities (such as delivery of equipment or material).
- **Disease prevention** - Health hazards typically include those relating to poor sanitation and living conditions, sexual transmission and vector-borne infections associated with imported labor. Communicable diseases of most concern are sexually-transmitted diseases (STDs) such as HIV/AIDS. Recommended interventions include: Providing surveillance and active screening and treatment of workers; Undertaking health awareness and education initiatives.

Consideration to community health and safety will be required for the Project in relation to water quality, traffic safety, SEA/SH and disease prevention, will also be required, particularly if imported labor is used. Works specific ESMP will include controls to protect the community from road works incidents and nuisances, vehicle incidents and nuisances and harm from workers. Community Health and Safety Procedures are to be prepared by the Contractor in the CESMP which set out strategies and actions required to prevent and/or minimize any negative health or safety impacts on the community arising from the physical works (discussed further in Section 6.5.2.8).

3.2.4 Construction Materials Extraction Guideline

The WB construction materials extraction guidance document[14] includes information relevant to construction materials extraction activities such as aggregates, sand, gravel, etc. It addresses stand-alone projects and extraction activities supporting construction, civil works, and cement projects.

Potential issues during the operational, construction, and decommissioning phases of construction materials extraction primarily include the following:

- **Environmental issues** – including air emissions, noise and vibrations, water, waste and land conversion.
- **Occupational health and safety hazards** – including respiratory hazards, noise and physical hazards
- **Community health and safety issues** – including land instability, water, explosives safety and decommissioning.

Aggregates supplies for the Project are discussed in Section 6.5.1.12.

3.2.5 World Bank Group – Resilient Building Design

Life and Fire Safety (L&FS) requirements for buildings accessible to the public are addressed in the "Infrastructure and Equipment Design and Safety" requirements of ESS4: Community Health and Safety, which requires that the Project:

> *6……will design, construct, operate, and decommission the structural elements of the project in accordance with national legal requirements, the EHSGs and other GIIP, taking into consideration safety risks to third parties and affected communities. Structural elements of a project will be designed and constructed by competent professionals, and certified or approved by competent authorities or professionals. Structural design will take into account climate change considerations, as appropriate[15]".*

L&FS requirements for other facilities and aimed to protect workers are addressed under ESS4: Emergency Preparedness and Response and ESS2: Occupational Health and Safety.

Section 3.3 (Life and Fire Safety) of the WB EHS Guidelines defines this requirement as it relates to fire and other safety standards for new buildings and existing buildings programmed for renovation under WB projects.

3.2.6 World Bank Good Practice Notes

World Bank Good Practice Notes[16] outlining an E&S Framework for Investment Project Financing (IPF) Operations relevant for the Project include:

- "Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment project Financing involving Major Civil Works", February 2020.
- "Non-Discrimination and Disability", June 2018.
- "Biodiversity and Sustainable Management of Living Natural Resources", June 2018.

[14] World Bank "Environmental, Health, and Safety Guidelines for Construction Materials Extraction" April. 2007

[15] Note that Design of the Resilient Government Facility is not part of this Project, but other buildings might be designed as part of Component 3, and construction of buildings falls under the MURP.

[16] See https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources

- "Gender", October 2019.
- Road Safety, October 2019.
- "Non-Discrimination: Sexual Orientation and Gender Identity (SOGI)", October 2019.

These Good Practice Notes have been considered in the preparation of the ESMF and where appropriate will be incorporated in Technical Advisory (TA) procurement documents, the preparation of ESA and any works-specific ESMPs.

3.3 ESF and World Bank Policies Relating to Project Activities

3.3.1 Technical Advisory

Components 1-3 may involve various Technical Advisory (TA) sub-components intended to provide RMI with strategies for climate adaptation and resilience and reduce harm to people and the built environment. TA sub-components may also influence environmental and social benefits and risks in RMI downstream / future decision-making, planning and implementation of the outputs. The type of TA studies and outputs include urban development strategies and risk-informed development control policies related to building controls and setbacks, land uses and spatial planning (Component 1) and vulnerability assessments and investment planning (Component 2 and 3).

Positive downstream impacts of these studies include the protection of lives and the built environment and the possibility of protecting and enhancing natural habitats for disaster and climate change resilience. However outcomes of TA studies could also result in a decline in natural habitats and natural coastal features through inappropriately designed physical protection structures, and/or from intensification of development in urban areas. TA initiatives therefore need to take into account E&S risk management considerations to ensure that, in the long term, Project activities achieve environmental benefits (such as enhancing ecosystem services like freshwater lens) and avoid and minimize environmental harm. In addition, social risks and benefits will need to be considered including impacts on women, children, youth, the elderly, people with disabilities and those who are marginalized or vulnerable due to the income or social status.

3.3.2 Physical Works

Physical works associated with Component 3 (Resilient Government Facilities) are generally known. However, for Component 2 works such as coastal protection works the nature, scale and location are not currently known. Component 2 works will be prioritized as a result of vulnerability assessments currently being carried out under the WB funded Pacific Resilience Project Phase II Project (PREP II) (P160096). Typologies of interventions include: seawalls, dikes, revetments, minor reclamations, berms, offshore breakwaters and protection and enhancement of natural habitats. All physical works will be screened using the processes set out in this ESMF to identify the potential risks and appropriate instruments.

3.3.3 Management of Environmental and Social Risks

Key social risks from Component 2 activities could arise from permanent and temporary land taking in relation to coastal protection works such as sea walls, OHS issues (associated with construction or built infrastructure and including inadequate working conditions), potential influx of project workers and contractors which may increase potential for gender-based violence (GBV) including sexual exploitation, abuse and harassment (SEAH), violence against children (VAC), temporary or permanent resettlement of business, services or households, as well as nuisance issues related to construction such as noise dust and traffic.

Component 3 activities mainly relate to building construction with an associated smaller impact footprint, Risks could arise from limited land access, OHS, construction worker risk of GBV) including SEAH, VAC, temporary or permanent resettlement of business, services or households, as well as nuisance issues related to construction such as noise dust and traffic.

This ESMF identifies E&S risk management measures in accordance with the ESF, including a preliminary E&S assessment (ESA) and a risk screening process for each confirmed component (involving TA and physical works).

Screening will inform the nature of ESA and the preparation of activity-specific instruments such as Environmental and Social Impact Assessments (ESIA), ESMP and Contractor ESMP (CESMP).

While involuntary land acquisition and resettlement will be excluded from the Project, the ESMF/Resettlement Framework includes procedures for voluntary land donation and negotiated settlements..

Further study requirements and actions emanating from the ESMF will be captured in the Environmental and Social Commitment Plan (ESCP).

3.4 RMI Policy Initiatives Relevant to Resilience and Adaptation Activities

Over the past two decades, RMI has developed a range of policy initiatives dealing with the Republic's response to climate change including:

- 2003 RMI Strategic Development Plan Framework 2003-2018 (Vision 2018)[17]
- 2011 National Climate Change Policy Framework (NCCPF)[18]
- 2013 Joint Climate Change and Disaster Risk Management National Action Plan 2014-2018 (JNAP)[19];
- 2015 National Strategic Plan (NSP) 2015-2017[20];
- 2018 RMI 2050 Climate Strategy[21];
- 2019/2020 National Strategic Plan (NSP) 2020-2030[22].

These initiatives are generally recognized as not being well implemented for a range of reasons including their broad scope and lack of operational focus.

More recently, a Cabinet decision (May 30th, 2019), established the Tile Til Eo Committee (TTEC), co-chaired by the Minister of Environment and the Chief Secretary, with a mandate to:

- provide oversight of the country's response to climate change and
- reduce climate and disaster risk for the well-being of the people of the RMI.

The cabinet decision also established three Working Groups under the oversight of the Tile Til Eo Committee: Adaptation Working Group (AWG), Mitigation Working Group (AWG) and the NDC Partnership working Group (NDCWG).

RMI is currently developing a National Adaptation Plan (NAP) to address its adaptation response to climate change under the guidance of the Adaptation Working Group (AWG) which is chaired by the Director of the Climate Change Directorate (CCD). The CCD has management oversight of climate-related planning and projects in RMI and serves as the UNFCCC focal point for GoRMI.

The RMI NAP is being developed to align with the National Strategic Plan, 2020-2030 (NSP) in which Adaptation to Climate Change and Sea-Level Rise is identified as a critically important issue. When completed, the NAP is intended to provide a policy framework for detailed adaptation measures in RMI.

[17] https://policy.asiapacificenergy.org/node/783

[18] https://rmi-data.sprep.org/resource/national-climate-change-policy-framework-january2011

[19] https://rmi-data.sprep.org/resource/republic-marshall-islands-joint-national-action-plan-climate-change-adaption-and-disaster

[20] https://rmi-data.sprep.org/system/files/RMI%20NSP%202015-2017%20%28JY%20Final%20260614%29%20260614%20%281%29.pdf

[21] https://policy.asiapacificenergy.org/node/3754/portal

[22] https://www.rmieppso.org/eppso_files/nsp/NSP_2020_2030.pdf

3.5 Gap Assessment - GoRMI vs ESF

The sole use of GoRMI's E&S frameworks is not considered appropriate due to the lack of specific regulatory tools to identify and control the risks and impacts of long term planning and physical works. There are a number of gaps between the RMI framework and the World Bank ESF, particularly in the social impact risk management area. Key equivalences, differences and gaps between WB requirements and current GoRMI regulations are set out in Table 3.

It is notable that RMI's Environmental Impact Assessment procedures don't include reference to assessment and mitigation of social risks notwithstanding Objective (c) of the National Environmental Protection Act 1984 –

> *(c) to use all practicable means including financial and technical assistance to foster and promote the general welfare of the people by creating conditions under which mankind and nature can coexist in productive harmony;*

Consultation with RMIEPA identified this gap as a matter which the Authority would seek to remedy, particularly given the authorization role of the RMIEPA in upcoming resilient works both under this project and arising from initiatives such as the NAP.

Measures have been included in this ESMF (Section 10.3) to build resilience by providing for the RMIEPA approval process to address social impacts and to incorporate social impact mitigation in a more robust approval process and in consequential construction environmental and social management protocols. These measures would help mitigate potential social impacts and would assist RMIEPA achieve objective (c) as set out in the Act, all consistent with attaining the specified objective of Component 1 of the Project which is to :

> *strengthen the Government's institutional capacity for adaptation planning and identify potential adaptation measures.*

Table 3: Gaps and compatibilities ESF instruments vs existing RMI legislative and regulatory instruments

WB Environmental and Social Standard	*World Bank ESF Instrument*	Relevant RMI Legislation	Equivalence	Gap Filling
ESS1	Environmental and Social Impact Assessment (ESIA)	EIA Regs 1994; Earthmoving Regs 1988,1994,1998; Historic Preservation Act 1991	The EIA Regulations require EIAs to be prepared for proposals with potential significant impact. The EIA follows a prescribed format and content, includes extensive and inclusive consultations with all stakeholders, and forms the basis of any approval. Projects remain subject to regulatory and permitting requirements set out in the NEPA, Coast Conservation Act, and the Historic Preservation Act. The prescribed format and content is not as comprehensive as the content of the ESIA set out in ESS1 and therefore there is only partial equivalence.	Both ESS1 and RMI national requirements would need to be followed for ESA and preparation of instruments. Where possible, instruments will be prepared to satisfy both WB and RMI requirements. TA and construction works to recognize and be undertaken in accordance with instruments. ESCP, ESMP and ESMF will need to be prepared in accordance with ESS1.
	Environmental and Social Commitment Plan (ESCP)	EIA Regs 1994; Earthmoving Regs 1988,1994,1998; Historic Preservation Act 1991	The ESCP, ESMP and ESMF are not explicitly covered under RMI Legislation. The Earthmoving Regulations require preparation of an erosion and sediment control plan which continues through project construction works but this plan largely focuses on physical aspects relating to erosion and sediment and makes no reference to social impact issues. . Common practice is for applicants for major developments to submit an Environmental Management Plan (EMP) with the application. The RMIEPA may impose conditions on approvals. Conditions pre- or post-EIA may include a requirement for an EMP. In cases where a proponent EMP has been drafted prior to the submission of an Earthmoving Permit Application, it may require modification to meet the conditions of approval. No reference to social impact assessment and mitigation.	
	Environmental and Social Management Plan (ESMP)			
	Environmental and Social Management Framework (ESMF)			
ESS2	Occupational Health and Safety Plan	n/a	No legislation in RMI addresses occupational health and safety	ESS2 requirements will be followed where there are gaps in local legislation, including preparation of OHS plans.
	Labor Management Procedures (LMP)	n/a	Legislation in RMI does not address the labor management issue set out in ESS2, nor is there reference to labor grievance redress mechanisms.	ESS2 requirements will be followed where there are gaps in local legislation, including preparation of the Project LMP
	Labor Grievance Redress Mechanism (LGRM)			

WB Environmental and Social Standard	*World Bank ESF Instrument*	Relevant RMI Legislation	Equivalence	Gap Filling
ESS3	Resource Use Efficiency Plans	EIA Regs 1994; Earthmoving Regs 1988,1994,1998; Coast Conservation Act 1988	Management plans are applicable to a range of operational aspects of development projects. However, these legal instruments are not explicit in terms of which plans must be prepared.	ESS3 and ESS6 requirements will be followed where there are gaps in local legislation.
ESS4	Community Health and Safety Plan	EIA Regs 1994	EIA approval by the RMIEPA is subject to application of practicable alternatives or practicable mitigation measures to substantially lessen significant impacts; and any remaining, unavoidable significant impacts deemed acceptable. Arguably this applies to community threats, however, the EIA Regulations are not explicit in this regard.	ESS4 requirements will be followed where there are gaps in local legislation, including preparation of safety plans and emergency (fire) response measures.
ESS5	Resettlement Framework and Resettlement Plan	RMI Constitution; Land Acquisition Act 1986	The RMI Land Acquisition Act 1986 makes provision for the acquisition of lands and servitudes for public use for payment of just compensation in terms of Article II, Section 5 of the Constitution of the Marshall Islands and to provide for matters connected therewith and incidental thereto. The Act defines “land” to include “things attached to the earth”. It also defines “persons interested”, with reference to land, to not include a monthly tenant. The Act covers the general provisions, preliminary investigation and declaration of intended acquisition, proceedings in court, payment of compensation, possession and disposal, divesting of land and general items pertaining to such land acquisition. However, there is only partial equivalence.	ESS5 requirements will be followed where there are gaps in local legislation, including preparation of the Project RF
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	EIA Regs 1994; Earthmoving Regs 1988,1994,1998; Coast Conservation Act 1988	Management plans are applicable to a range of operational aspects of development projects. Current RMI legislation (EIA and Earthmoving Regs, Coast Conservation Act) can be interpreted to provide for pollution prevention and or biodiversity protection. However, these legal instruments are not explicit in terms of which plans must be prepared.	ESS3 and ESS6 requirements will be followed where there are gaps in local legislation.
ESS8	Procedures for protection of Cultural Heritage	Historic Preservation Act 1991	The Historic Preservation Act (HPA), Regulations Governing Land Modification Activities 1991, and Regulations Governing the Disposition of Archaeologically Recovered Human Remains 1991 set out a range of obligations on developers whose earthmoving activities may affect cultural resources. These obligations include obtaining a permit from the Historic Preservation Office.	ESS8 requirements will be followed where there are gaps in local legislation. Provisions have been included in this ESMF to address potential risks and impacts to ensure compliance with ESS8.

WB Environmental and Social Standard	*World Bank ESF Instrument*	Relevant RMI Legislation	Equivalence	Gap Filling
			Approvals under the EIA Regulation are subject to the HPA and associated Regulations.	
ESS10	Stakeholder Engagement Plan	EIA Regs 1994	The EIA Regulations require "extensive and inclusive consultations with all stakeholders." However, there is no prescription of the format of such consultation. The regulations provide that at any time during the permitting process, the RMIEPA may convene a public hearing for the purpose of determining the facts on which to base a decision. They must give adequate notice of the hearing or hearings to the community and provide an adequate opportunity to community members to appear and be heard at such a hearing. Interested persons may also provide written comments and the RMI EPA must give adequate opportunity for this to occur.	ESS10 requirements will be followed where there are gaps in local legislation. Provisions have been included in the Project SEP to comply with ESS10, and national legislation on public consultation, project information disclosure and grievance mechanisms

4. PROJECT AREA OF INFLUENCE

The Project "Area of Influence" (AOI) of physical works funded by the Project based on Guidance Note to ESS1[23], consists of:

- The inland area, reef flats and near-shore areas of urbanized islets of Majuro Atoll between Rita and Laura, situated in the general vicinity of works to be undertaken under Component 2;
- Land on and adjacent to the location of buildings constructed under Component 3
- Contractors yards, lay down areas, accommodation facilities and any other works related facilities;
- Areas that may be required for ecosystem restoration, relocation of assets or cultural heritage; and
- Aggregate extraction locations and immediate surrounds.

5. ENVIRONMENTAL AND SOCIAL CONTEXT DESCRIPTION

This section provides an overview of the physical, ecological, social and demographic characteristics of Majuro where Project activities will be undertaken under Components 2 and 3. Figure 1 shows the main locations referred to below.

5.1 Physical and Ecological

5.1.1 Physical Overview

Majuro Atoll, located at 171°12'E and 7°09'N, forms an almost continuous reef flat which encloses the lagoon that has an area of 324 km^2. Majuro consists of a series of islets connected by causeways on the south rim to form an almost continuous land mass. The atoll is elongated in shape and extends approximately 40 km east to west and 9.7 km from north to south[24].

The lagoon is enclosed by an almost continuous reef flat with some passages on the middle west of north rim. Most islets are on the east half of north rim, east, south and southwest rims. The islets on the south rim have been connected by causeways. The lagoon has a surface area of about 324 km^2 and an average depth of about 46 m, descending to a maximum depth of 67m. Prevailing winds at Majuro Atoll are east-northeast trade winds.

Tides in Majuro are semi-diurnal, with a mean spring tide range of 1.26 meters (**Table 4**).

Table 4: Tidal datum for Majuro, relative to MSL, compiled from multiple sources[25].

Tide level	**Elevation** [m above MSL]
Highest Astronomical Tide (HAT)	1.17
Mean Higher High Water (MHHW)	0.645
Local Mean Sea Level (MSL)	0
Mean Lower Low Water (MLLW)	-0.616
Lowest Astronomical Tide (LAT)	-1.007

[23] "....Where the project involves specifically identified physical elements, aspects, and facilities that are likely to generate impacts, the collection and analysis of environmental and social baseline information and data, at an appropriate level of detail for the project, are essential to define the project's area of influence and describe relevant physical, biological, ecological, socioeconomic, health, and labor conditions, including any changes anticipated to occur in the foreseeable future (including projected variability in climatic and environmental conditions due to potentially significant climate change or that would require adaptation measures that could occur over the life of the project), along with current and proposed development activities within the general project area but not directly connected to the project to be financed....."

[24] Xue C (2001) "Coastal Erosion and Management of Majuro Atoll, Marshall Islands" Journal of Coastal Research, Vol. 17, No. 4 (Autumn, 2001), pp. 909-918

[25] Deltares 2021 "Long-term climate adaptation options, costing and financing for the Republic of the Marshall Islands". World Bank, Project no. 11206171_002 25 June 2021.

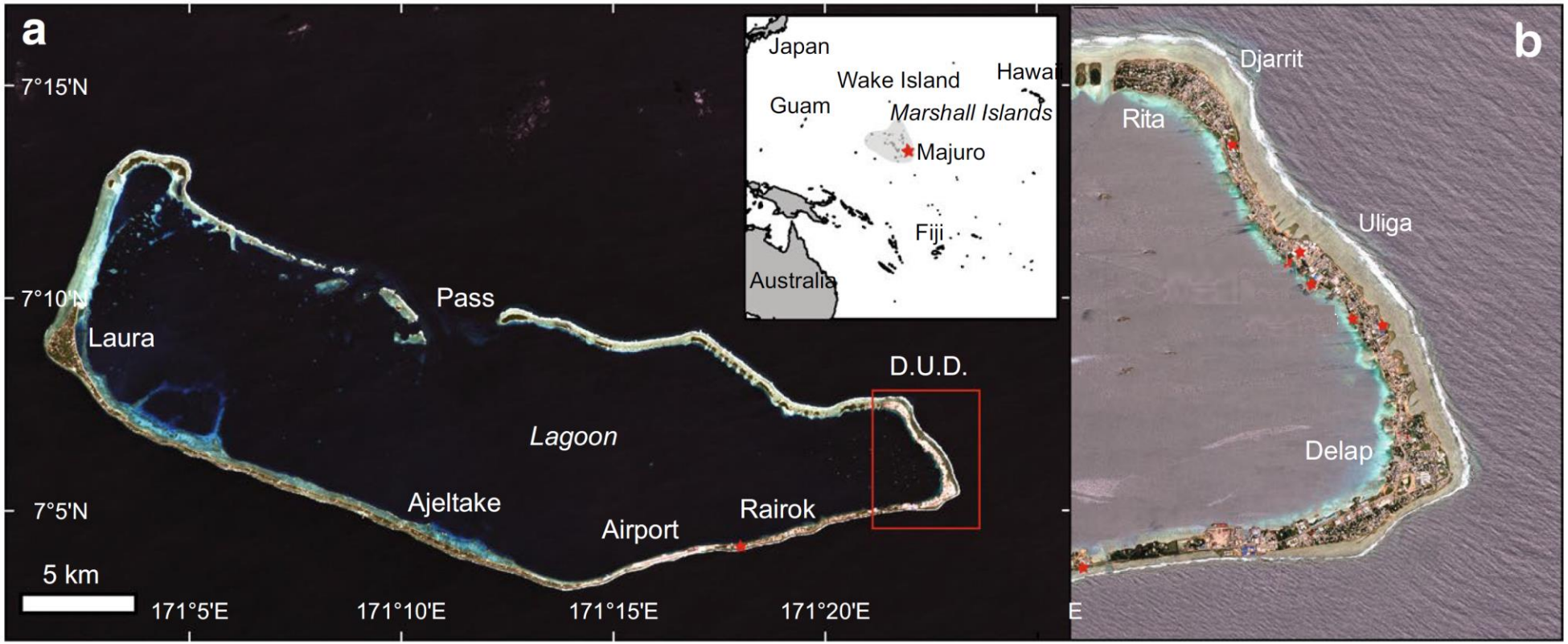

Figure 4: Location Plan: a. Majuro Atoll; b. D-U-D area[26]

[26] Adapted from: Ford M., Merrifield M.A., Becker J.M. (2018) "Inundation of a low-lying urban atoll island: Majuro, Marshall Islands" Nat Hazards (2018) 91:1273–1297

5.1.2 Atoll Topography

In 2019, a high-resolution LiDAR topographic Digital Elevation Model (DEM) was commissioned for both Majuro and Ebeye. **Figure 5** sets out findings for Majuro Atoll[27].

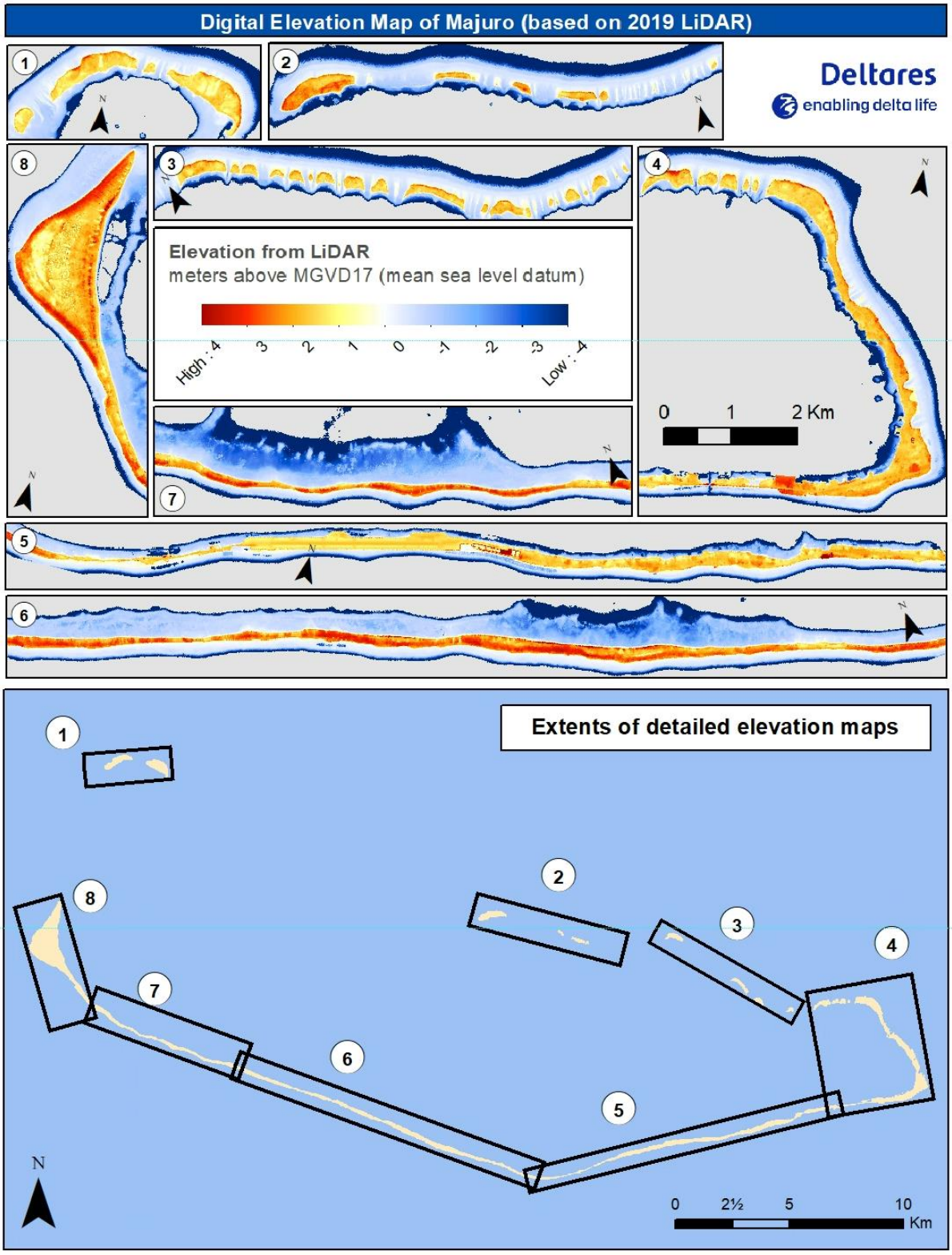

Figure 5: Top: LiDAR data set for all of Majuro Atoll. Bottom: Extent of detailed elevation maps.

[27] Deltares (2021)

5.1.3 Vegetation

The nonurban areas in Majuro are generally covered with coconut groves mixed with smaller breadfruit groves, which were established in the late 1800s. Indigenous vegetation is limited to a narrow band along the ocean or lagoon shoreline, or as minor understory species in the coconut groves. Urbanization on D-U-D has reduced tree canopy; and enhanced establishment of extensive yards with grasses, herbs, and sedges; and reduction of many indigenous and aboriginally introduced understory species. Ornamental species, which have expanded in importance, especially in the shrub layer, consist primarily of species recorded in Laura village prior to urbanization. The urban plant community is a mixture of indigenous, and recently introduced species.[28]

5.1.4 Protected Natural Areas

RMI has local and national level approaches to protecting natural habitats. At the local level, the Reimaanlok (looking to the future) Program facilitates the identification and approaches to integrated natural resource management by the community, including protecting fisheries, coastal resources, breeding sites and other natural values. These areas are recorded under the Protected Area Network through national regulations.

The purpose of the Reimaanlok is to foster collaboration and consultation between agencies involved in conservation in the Marshall Islands and other stakeholders including communities and traditional and elected leaders. Reimaanlok is supported by the Marshall Islands Marine Resources Authority (MIMRA).

Figure 6 identifies protected areas in Majuro, with Figure 7 identifying the location of a Local Marine Management Area (LMMA) at Ajeltake and several sites on islets to the west of the main urbanized area..

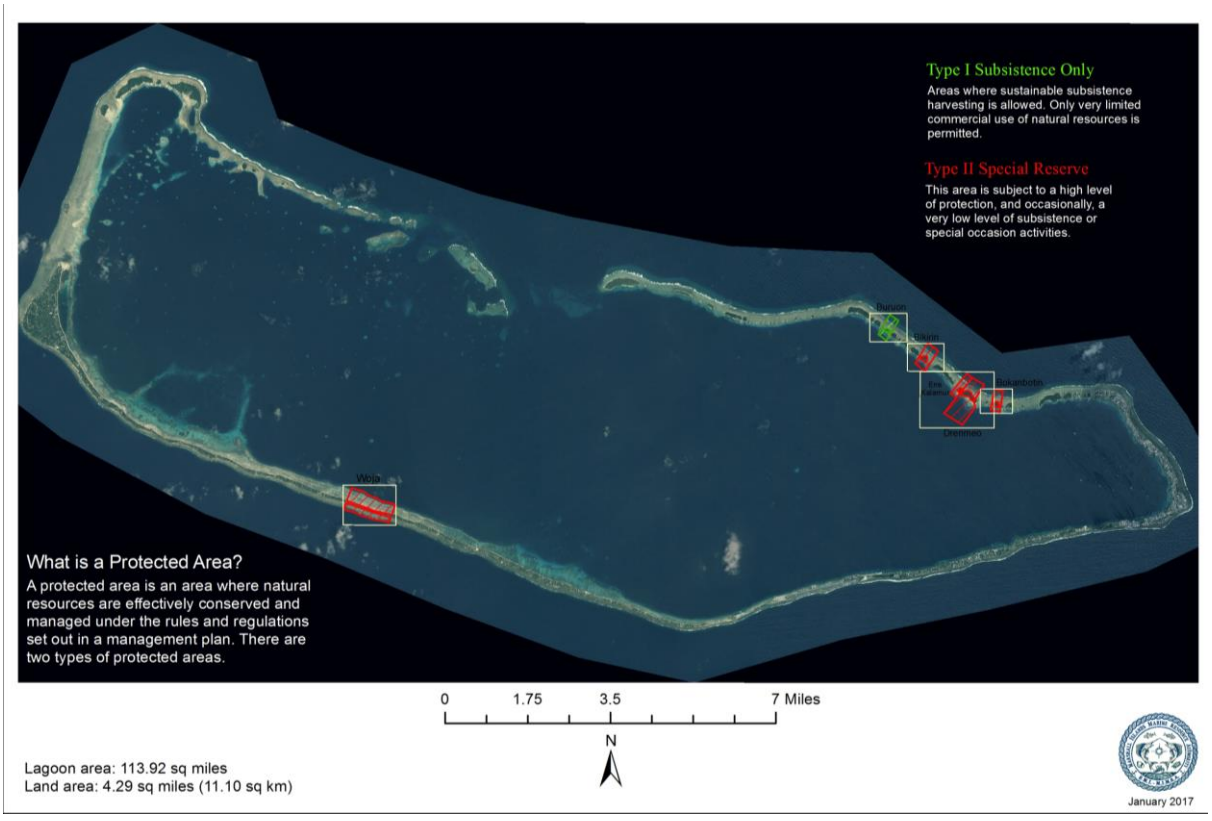

Figure 6: Protected areas in Majuro

28 Sabath M. D. (1977) "Vegetation and Urbanization on Majuro atolls, Marshall Islands", Pacific Science (1977), vol 3. No 4

Figure 7: Local Marine Management Area at Ajeltake

5.1.5 Coastal and Marine

Despite the reliance on the coastal areas for subsistence food gathering and small-scale commercial fishing, fisheries in urban areas of Majuro are depleted, water quality is poor and some fish species contain elevated levels of heavy metals and organic contaminants (as measured by MIMRA in a recent study[29]).

The MIMRA study examined water quality in Majuro Lagoon, as well as at several coastal sites, using data collected by the RMI EPA on enterococci concentrations. The study found that most sites exceeded accepted water quality guidelines at some point in the sampling period, with all of the routinely sampled eastern sites exceeding guidelines in the summer of 2020. The study indicated widespread and severely impaired lagoon water quality. The study recommended improvements to the sewer infrastructure and the development of on-site waste disposal options for households that are not connected to the sewer, concluding that the elevated concentrations of enterococci in Majuro Lagoon present a clear risk to residents and the ecosystem.

Along with locations throughout RMI, elevated levels of lead, arsenic and cadmium were detected in a number of fish species in the Majuro Lagoon.

This habitat decline is contributed to by urbanization on land adjacent to the eastern lagoon area, and waste from vessels moored in Majuro lagoon.

5.1.6 Birds[30]

RMI has recorded 85 known species of birds, with one native resident land bird species, the Micronesian Imperial Pigeon, which is restricted to the Micronesian region. One native land species, the Crimson-crowned Fruit Dove, has gone extinct in RMI but is present in in Chuuk, Pohnpei, and Kosrae in the Federated States of Micronesia. The Micronesian Imperial Pigeon is threatened, in part to indiscriminate hunting. Additional resident land birds are two introduced species, the Eurasian Tree sparrow and the Red Junglefowl. The Rock Dove resides in RMI and it is known to be feral on Majuro. A recently introduced bird to the RMI is the Red Vented Bulbul (*Pychontus cafer*), considered highly invasive. The first record of the introduced Bulbul was in 2000 in Majuro; currently it is surviving well in the wild on that atoll and poses a threat to native birds through direct competition for food and as an agricultural pest able to spread invasive plant species.

[29] "Marshall Islands Marine Pollution Project", prepared by the University of Hawaii for MIMRA under the World bank PROP Project, May 2021

[30] Gupta, A. (2007) "Proposed Important Bird Areas in the Republic of the Marshall Islands" Report Prepared for BirdLife International, Suva, Fiji

Fifteen species of seabirds breed in the atolls of RMI, along with an additional 65 migrant and vagrant bird species. Migratory birds roost in small numbers along the coast inside the lagoon.

At the species level, there are no endemic birds in the RMI. However, the Micronesian Pigeon is known to occur in two subspecies, one of which is endemic at that level. *Ducula oceanica ratakensis*, known only from the Ratak chain of islands, is endemic to the RMI and considered extremely endangered.

Based on the literature review and communication with MICS, six Important Bird Areas (IBAs) are identified for the Marshall Islands[31]. These include one in the "Northeast Islets, Majuro Atoll" (Figure 8).

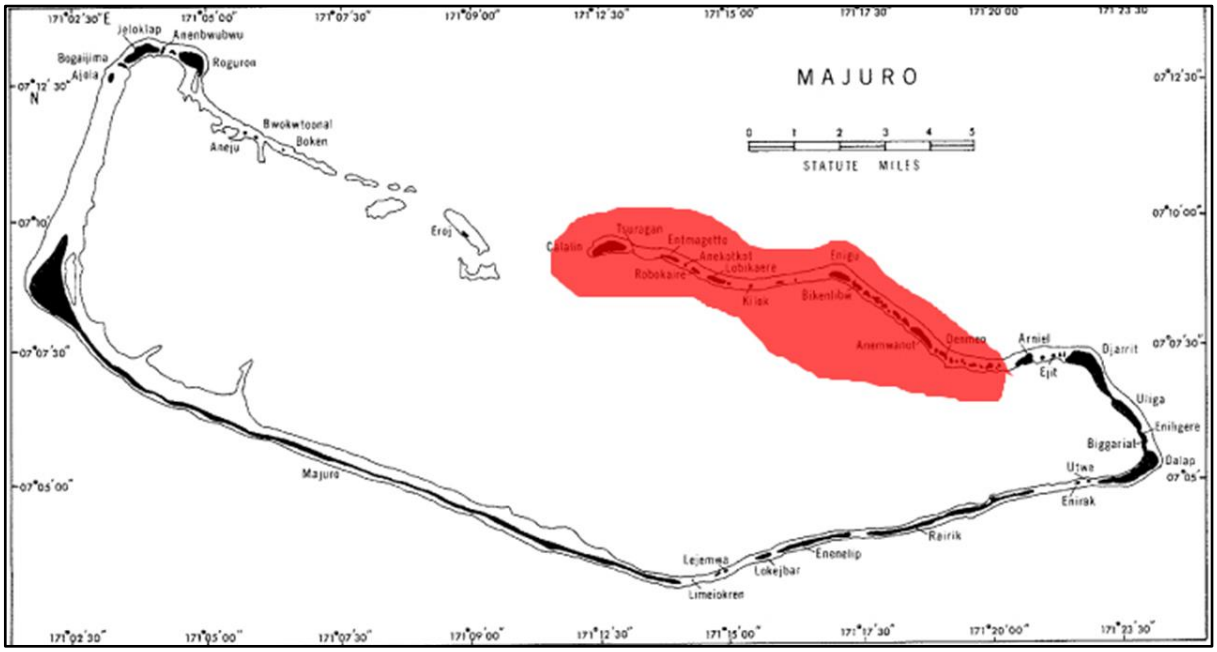

Figure 8: Identified Important Bird Area (IBA) in Majuro

5.1.7 Terrestrial fauna

As with most atolls of the Pacific, RMI has a very species poor land fauna. The Polynesian rat is the only land mammal native to the Marshall Islands, although this arrived with early settlers. Limited information on the reptile fauna indicate 7 species of lizard and 1 species of blind snake, none of which are endemic to the Marshall Islands. There is virtually no information on the terrestrial invertebrates of the Marshall Islands. The coconut crab is widespread, although declining in abundance on inhabited atolls due to its popularity as a food item.[32]

5.2 Socio-economic Environment

5.2.1 General

Majuro is the economic and political center of RMI with around 20,500 residents, comprising approximately 52% of the national population[33] estimated at around 53,158[34] and projected to decrease over time as a result of migration away from RMI. Between 2015-2017 on average 7,511 Marshallese have migrated overseas annually.

[31] Ibid.

[32] Holthus P, Crawford M, Makroro C. Sullivan, S "Vulnerability Assessment of Accelerated Sea Level Rise – Case study: Majuro, Marshall Islands" SPREP Reports and Studies Series no. 60, 1992

[33] From 2021 Census Preliminary Data

[34] Ibid.

5.2.2 Land Tenure[35]

Across RMI, land is seen as the "fundamental basis" of society, deeply rooted in the culture of the Marshall Islands, with 99% of the land being held under customary law and being passed on matrilineally. Ownership of land is fundamental to citizenship according to the Constitution.

In principle, all lands are privately owned by Marshallese landowners with widespread leasehold. Whenever the government wishes to use land publicly, either for public services or for its own use, it leases land from land owners, for which the government has an annual budget.

Land tenure in RMI falls under Article II of the Constitution which states that:

> *"nothing in Article II [of the RMI Constitution] shall be construed to invalidate the customary law or traditional practice concerning land tenure or any related matter …… including, where applicable, the rights and obligations of the Iroijlaplap [traditional chief of each island or island group], Iroijedrik [lower chief], Alap [head of commoner/worker clan] and Dri Jerbal [commoner/worker]."*

The roles of the traditional/chiefly authorities in Marshallese society are:

- **Iroijlaplap** - also known as Paramount Chief and Supreme Authority over lands and livelihoods on the islands. Atoll-wide decision-making is their sole responsibility. They are also involved in municipal decision-making and traditional governance.
- **Iroijdrik** - also a Chief involved in island-wide decision making and with some municipal hold on land activities and communal engagements.
- **Alap** - sole responsibility is decision-making for (a) specific land parcel(s) and for the management of land and communal engagements.
- **Dri Jerbal** - also responsible for (a) specific land parcel(s) and sole responsibility is to coordinate operations of communal livelihoods.

In Majuro atoll, all land parcels (known as weto[36]) typically have at least one Iroijlaplap, one Iroijdrik, one Alap and one Dri Jerbal. Some land parcels only have one Alap and one Dri Jerbal. The traditional authority in Majuro follows the Ratak Atolls' traditional system with four figureheads (Iroijlaplap, Iroijdrik, Alap and Dri Jerbal), while atolls in the Ralik Chain follow a traditional system with only Iroij/Iroijlaplap, Alap and Dri Jerbal.

Each weto has one landowner (Alap). **Table 5** shows the number of wetos and Alaps for some districts in Majuro[37].

District	Number of Wetos	Number of Alaps
Ajeltake	64	46
Arak & Jeirok	49	40
Delap	36	23
Iolap	16	12
Lobat	20	16
Lomar	51	19
Rairok	39	25
Rita	21	18
Uliga	15	7
Woja	25	13
Total (for above districts)	336	219

Table 5: Number of land parcels (wetos) and approximate number of landowners (Alap) for selected districts in Majuro.

[35] Deltares (2021).

[36] Weto describes the typical Marshallese landholding and represents a strip of land that extends from the lagoon to the ocean. Its size ranges between one and five acres.

[37] Deltares (2021)

5.2.3 Settlement Patterns[38]

Majuro supports the largest number of buildings in RMI with 5810 buildings, with the heaviest building density in the D-U-D area. There is approximately 9.6 acres of unoccupied land on Majuro Atoll[39].

Majuro contains the critical infrastructure necessary for maintenance of vital socio-economic functions such as safety, health, security and wellbeing, including:

- Water and wastewater treatment facilities (e.g. sanitation, drainage)
- Energy (e.g. generation and distribution)
- Transport (e.g. airports, ports and roads)
- Communication technologies and emergency services
- Education facilities (university, college, elementary and high schools)
- Healthcare systems (e.g. hospitals and emergency services)

An illustration of the building classification for part of D-U-D is shown in Figure 9[40], with the distribution of the 5725 building types across D-U-D summarized in Table 6. Average property values per building category estimated by Deltares (2021) are summarized in Table 7.

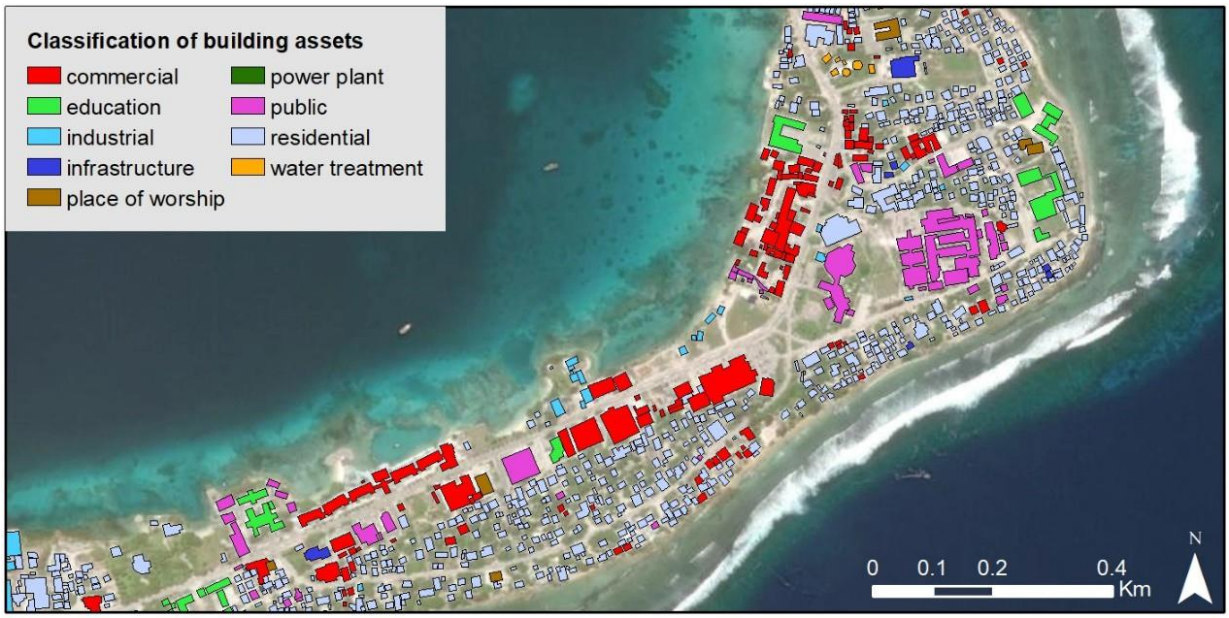

Figure 9: Example of the building classification for part of D-U-D

Building category	# of assets
Commercial	412
Education	117
Industrial	153
Infrastructure	50
Place of worship	50
Power plant	7
Other public	183
Residential	4,740
Water treatment	13

Table 6: Building Types across D-U-D[41]

[38] Deltares (2021)

[39] Ibid.

[40] Ibid.

Ibid.

Asset Category	Mean value [USD]	Mean value/area [USD / m^2]
Commercial	404,725	4,380
Education	655,765	3,531
Industrial	343,545	3,131
Infrastructure	220,487	2,314
Place of worship	350,216	1,372
Power plant*	4,000,000	34,942
Other public	399,764	2,997
Residential	120,641	1,618
Water treatment*	4,000,000	43,924

Table 7: Average building asset values (structure only, no building content included), per category. All values in 2010 USD

5.2.4 Agricultural Land Use

Laura is the only area of Majuro where large scale agricultural activity is undertaken. Deltares (2021) undertook and an agriculture risk assessment of Laura, with results summarized in Figure 10. The analysis concluded that agricultural areas (which includes coconut crops and nut trees) had an estimated agricultural land value of US$1,980.00 per ha (2010 dollars).

Figure 10: Agricultural areas in Laura[42]

[42] Deltares (2021)

5.2.5 Potable Water Supply

Majuro's potable water supply system is relatively complex, with multiple sources and treatment plants as outlined in Figure 11.

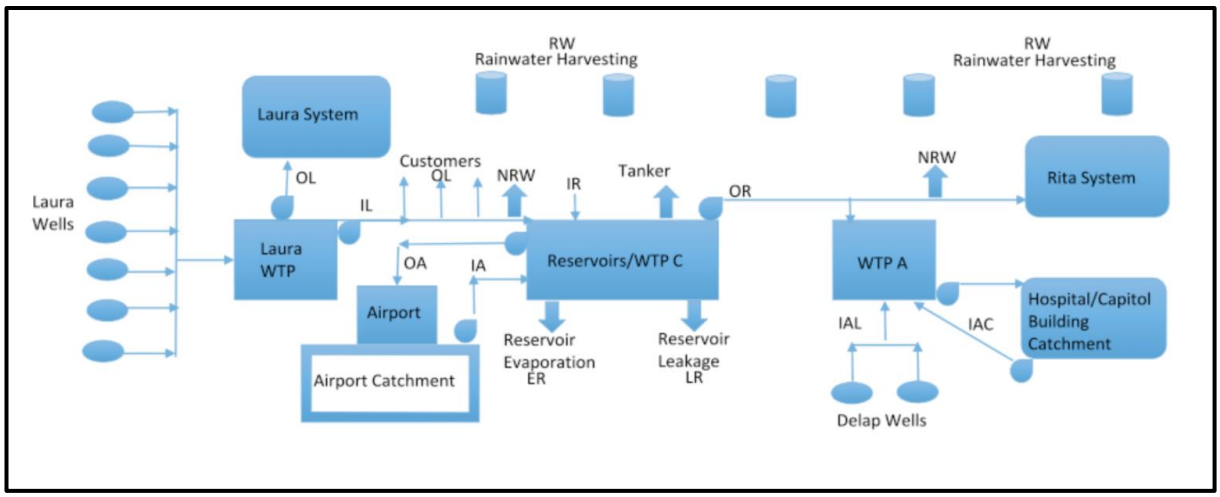

Figure 11: Schematic of Majuro Water Supply

Majuro's water supply comprises three sources for public purposes, along with individual household rainwater harvesting. These public sources are:

Airport System: 30 ha airport catchment discharging to seven above ground reservoirs of 130 ML storage volume, providing non-potable water from the airport to the Darrit (Rita) end of the island. Water is pumped to customers for four hours five days per week (supply was as little as two days per week prior to 2016).

Laura groundwater lens: Servicing the Laura end of the island with non-potable water via six wells and with a connection to the airport reservoirs to supplement the airport system as needed. Water is pumped for eight hours five days per week. The lens has a safe yield in the order of 400 ML/year.

Hospital System: Roof runoff from the hospital and capital building complex, along with extraction from the Delap groundwater lens, discharging to Water Treatment Plant A (WTP A). WTP A is small, with a capacity in the order of 150,000 Lpd and is dedicated to potable water supply to the hospital and the capital building complex.

Only about 25 percent of residential properties are connected to the Majuro Water and Sewer Company's (MWSC) piped water supply system, primarily because of a low level of service and affordability of MWSC water, along with the prevalence of household rainwater harvesting.

Because of intermittent supply, poor pipeline condition and lack of chlorine booster stations along the 15 km distribution mains, MWSC regularly advises customers not to drink the water. A community survey undertaken by MWSC in 2016 found that 52% of residents use their own or neighbor's rainwater catchment for drinking water and 39% purchase bottle water for drinking water. There are at least eight commercial drinking water suppliers providing bottled drinking water.

5.2.6 Vulnerable Groups

By all counts, the percentage of people considered "vulnerable" in the RMI remains high for a number of reasons, despite the considerable efforts of the GoRMI, civil society organizations (CSOs), regional/ international development agencies and donor partners to readdress inequalities and marginalization of certain groups. External factors affecting vulnerability are tied to the country's location, size, geography, climate and macro-

economic issues, while internal influences relate more to the socio-cultural, economic and political context, and the adequacy of service delivery systems to meet the collective needs of society.

With respect to external factors, the impacts of climate change on human security are of massive concern: "*In the RMI, climate change is not just a hardship but battle for survival*" (GoRMI, VNR 2020). As one of only four atoll nations in the world, the RMI is extremely vulnerable to the effects of changing climate conditions and increase in natural disasters, with sea-level rise posing a direct threat to the country's actual existence. In 2019 the GoRMI declared a "national climate crisis" due to increasing coastal erosion, storm surges, flooding, droughts, climate-induced migration, growing water and food insecurity, and the extent of damage caused of disasters - all of which was taking a significant toll on the welfare of the population – especially those who were already vulnerable due to other factors - and on government services and infrastructure. Increased urbanization caused by people relocating from the neighboring islands to urban areas for better protection and services (and then often, from Majuro to the US for the same reasons) has put added pressure on natural and built resources in Majuro and Ebeye. In turn, this has created additional vulnerability and hardship due to overcrowded urban housing conditions, food and water shortages, as well as increasing tensions within households.

The COVID-19 pandemic has further increased vulnerability and hardship among the RMI population, especially for people with low income, multiple dependents and inadequate housing and food security . According to EPPSO, the poverty rate for RMI is estimated at 7.9 percent based on the basic needs poverty line rate constructed using 2019-20 (pre-COVID) HIES baseline data. This translates to approximately 4,300 individuals living in poverty nationwide. This measure is based on an annual per adult equivalent (AE)3 poverty line of USD$1,882, or approximately $ 5.2 per AE per day. While most of RMI's poor are concentrated in rural areas. Majuro has the lowest rates of poverty in the country, though its distribution of poor is on par with Kwajalein.

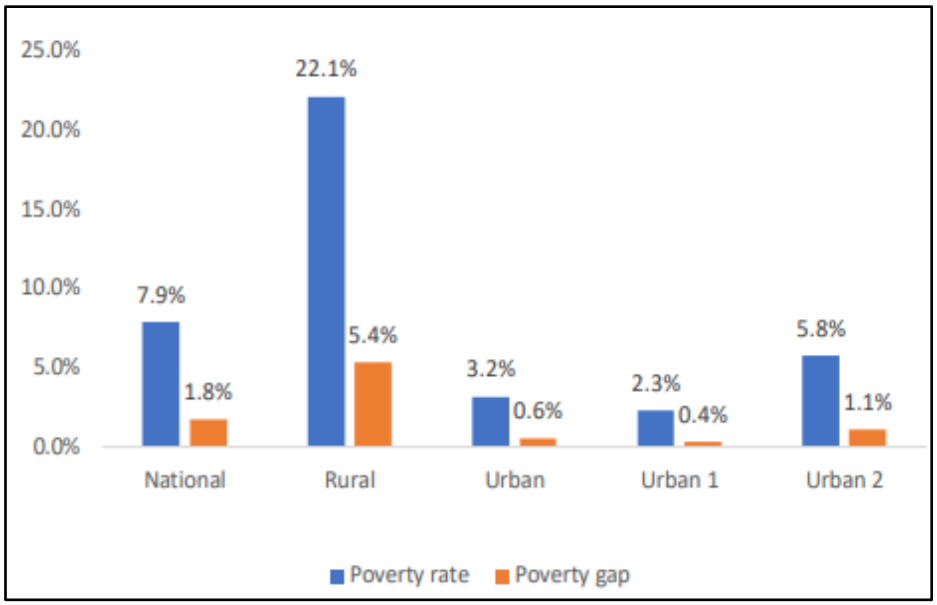

Figure 12: RMI Basic Need Poverty Rate, 2020[43]

In addition to climate change, urban migration, macro-economic challenges associated with limited domestic markets and viable export commodities (leading to a perpetually high unemployment rate) and COVID-19 there are a number of internal factors that also affect vulnerability. In this regard, government recognizes that people can be disadvantaged due to their gender, age, place or residence, level of education, having a disability or a chronic health issue - including NCDs, by gender-based violence and by a lack of access to land, services and/or voice in public decision-making - especially for women. As such, a central

[43] Source: RMI EPPSO.ORG -Poverty Assessment Country Chapter: Republic of Marshall Islands pg. 3-4

platform of national development policies and plans is to ensure that “no one is left behind” in the pursuit of social and economic progress.

A key factor underlying vulnerability in the RMI relates to the prevalence of gender-based violence. While up-to-date, reliable GBV data is lacking, the Family Health and Safety Survey (FHSS) showed: (i) that rates of intimate partner violence and non-intimate partner violence toward women are high; and (ii) attitudes held by men, and women, support and excuse GBV. The extent to which exploitation, abuse or sexual harassment (SEA/SH) also occurs in the workshop cannot be assessed due a lack of data.

Key vulnerability factors relevant to the project include people living within project areas of interest who have particular access needs, including those with disabilities and the elderly; women who do not have sufficient voice or agency to contribute to project planning and decision-making; people who live in marginalized and impoverished conditions, especially if their housing situations are disrupted due to project works as well as single-headed households. Strategies to minimize risk and ensure that vulnerable group of people are actively engaged in activity design are identified in the SEP.

5.3 Sea Level Rise - Hazards

5.3.1 Setting

Much of the natural topographic relief of the urbanized sections of Majuro atoll has been greatly altered by development. Historically, the area contained a number of smaller islands which have subsequently been connected by causeways and land reclamation. The total land area of the D-U-D area has increased significantly over the past 40 years as a result of development within the coastal zone, with the majority of the urban shoreline, both ocean- and lagoon-facing, armored using a variety of engineering structures, and the surrounding reef impacted by pollution and mining. Atoll Islands are dynamic landforms, which have been shown to adjust to elevated water levels by changing planform configuration (i.e. island shape, size and position) and increasing elevation of island margins. However, unlike the shorelines of unmodified reef islands, the hardened shoreline of Majuro is geomorphically inert, unable to dynamically adjust to changing boundary conditions. The island is characterized by higher elevations on the ocean side of the island dipping towards the lagoon coast.[44]

5.3.2 Inundation Risks

Deltares (2021) assessed the threats posed to Majuro by Sea Level Rise (SLR), based around the effects of event- driven flooding in combination with SLR, which can lead to land loss, and saltwater intrusion.

The study for Majuro used a design 10 year flood event for the assessment, on the basis that it represents a frequency at which flooding would likely be considered intolerable (i.e., occurs on average three times during a 30 year period). Figure 13 shows an example of the incremental flood depths and associated areas for a portion of D-U-D for a 10 year Annual Return Interval (ARI) flood event at 0.25, 0.5 and 1 m increments of SLR[45].

[44] Ford et. al. (2018)

[45] Deltares (2021)

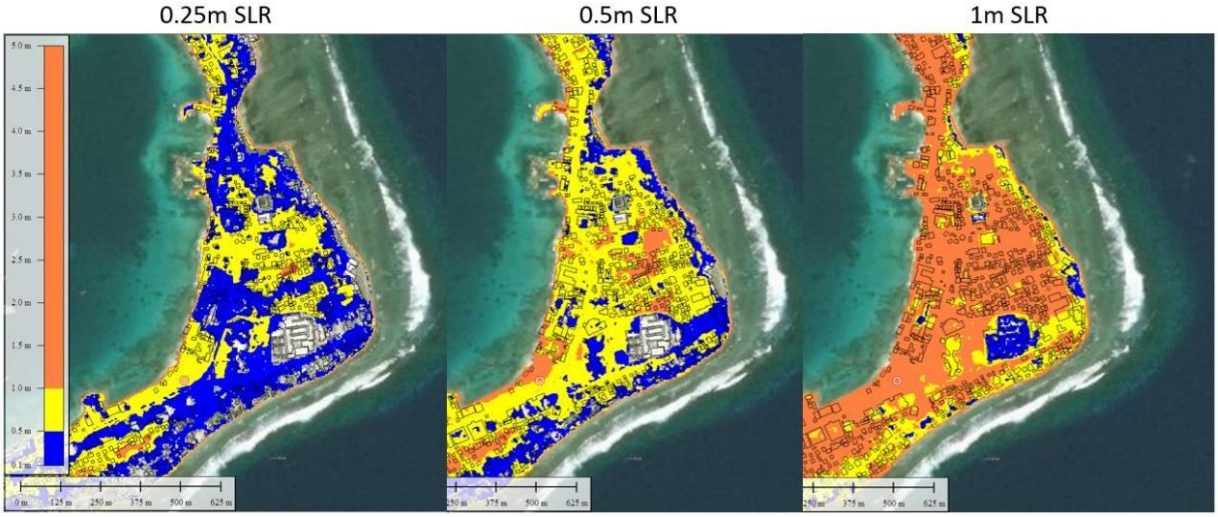

Figure 13: Example of 10 year ARI flood depth increments for part of D-U-D under 0.25, 0.5 and 1 m SLR scenarios

Table 8 shows the data taken from the flood modelling used as basis for the development of pathway costs for major urban centers on Majuro[46].

Site	10yr RP Inundation						
	SLR Scenario	Flooded area %	Flooded area (Ha)	Area un affected (Ha)	Average depth (m)	Shoreline affected – ocean side(m)	Shoreline affected –lagoon side (m)
Majuro (D-U-D-Rairok)	0	67%	262	128	0.5	12,747	37,068
	0.25	83%	323	67	0.7	21,321	43,635
	0.5	90%	351	39	0.9	32,346	46,199
	1	96%	374	16	1.3	50,789	49,622
	2	99%	385	5	2.3	53,308	50,584
Majuro (Laura-Ajeltake)	0	14%	79	502	0.4	8,226	21,025
	0.25	23%	132	450	0.5	12,587	22,971
	0.5	45%	263	318	0.5	16,417	23,916
	1	77%	446	135	1.0	21,673	24,595
	2	89%	516	65	1.9	23,462	24,632

Table 8: Flood modelling data for D-U-D to Laura

The Project will address options to mitigate the impacts associated with these predicted levels of inundation, and will undertake works to illustrate practicalities of any such options.

[46] Deltares (2021)

6. PROJECT ENVIRONMENTAL & SOCIAL IMPACTS

6.1 Introduction

In broad terms ESS1 calls for a process of analysis and planning to ensure the environmental and social impacts and risks of a project are identified, avoided, minimized, reduced or mitigated.

ESS1 requires an Environmental and Social Assessment (ESA) proportionate to the potential risks and impacts of the project, and taking account of all relevant direct, indirect and cumulative environmental and social risks and impacts of the project, throughout the project life cycle.

The following sections discuss impacts and risks for each Component separately. Firstly, though consideration is given to labor and working conditions as a cross-cutting issue.

6.2 Labor and Working Conditions

Consideration of labor requirements and working conditions applies to every Component. While the labor needs associated with particular project activities have not yet been defined, the project will engage direct and contracted workers. Direct workers will be engaged by the PIU while contracted workers will likely include construction contractors and technical consulting firms. The use of community labor is not anticipated.

In regard to labor issues, this ESMF includes assessment of OHS risks, COVID-19 measures, working conditions, the potential for worker influx and treatment of workers under 18; and identifies potential mitigation measures which will include a code of conduct for workers. These matters will be included in the LMP, the requirement for which will be included in the ESCP. The LMP will be prepared by the CIU during project implementation before project workers are engaged.

TECHNICAL ADVISORY

6.3 Component 1 - Technical Advisory Impacts and Risks

6.3.1 Recognition of Long Term Impacts

TA activities under Component 1 will achieve positive impacts through helping guide the protection of coastlines and infrastructure in Majuro, with substantive benefits to the people of RMI as a whole given the importance of Majuro both socially and economically in RMI.

However, TA outputs, such as development controls could give rise to longer term “legacy” E&S impacts including changes to ecosystems, changes to the way in which communities use natural resources and changes to land tenure/access (See Section 6.3.2),

These potential legacy impacts need to be taken into consideration during TA activities, where a long-term perspective needs to be adopted.

6.3.2 Recognition of RMI Land Tenure Context

TA outputs (development controls and planning) may in the long term influence land settlement patterns and may require different approaches to land use decision making. The current RMI land use regime is enshrined in the RMI Constitution (Section 5.2.2 of this ESMF) which defines the paramount decision-making role of landowners in the republic. TA outputs, particularly any relating to land use, will need to recognise this role and be acceptable to landowners to enable project objectives to be achieved.

6.3.3 Need for sufficient stakeholder engagement

Stakeholder discontent can arise where study outcomes are based on an absence of adequate stakeholder engagement and inputs. In turn this can result in key stakeholders

and community members not being meaningfully engaged during TA activities, thereby impacting on the efficacy of TA outcomes,

It will be important that Component 1 TA works adhere to the Stakeholder Engagement Plan (SEP) to ensure appropriate engagement and input and buy-in from stakeholders. Whilst stakeholder engagement is critical in the roll out of resilient infrastructure, it's also critical in the development and implementation of institutional frameworks for resilience planning. Key stakeholders include those who will benefit from improved adaption planning, across the individual, household, community and national levels; along with any who may be affected by the project, those who can influence and be influenced by the outcome of the project and those interested in the project.

Specific and targeted approaches will be adopted for engaging with vulnerable and marginalized groups including women, the elderly, people with disabilities, single headed households and those living in impoverished conditions to ensure their participation in stakeholder consultations.

This issue is particularly relevant given the self-determination concept embodied in the National Adaptation Plan which sets an overarching policy umbrella within which adaptation activities in RMI are to be implemented.

6.3.4 Impacts on Natural Environment

TA derived development controls and adaptation strategies pose a potential risk that the prioritization of the protection of human life and the built environment might incur negative long term impacts on natural habitats, for example where coastal protection structures occupy reef flat and coastal areas, or where low-lying habitat is raised and filled for the purposes of urban development.

Such development controls and adaptation strategies will need to prioritize natural habitats, particularly reef and coastal ecosystems that provide protection from wave energy and wind and ecosystem services such as freshwater lenses. Active TA consideration will need to be given to opportunities to enhance natural biodiversity in developed areas by encouraging nature-based solutions and green infrastructure investments where practicable and consistent with stakeholder involvement in participatory design.

6.3.5 Consultants - Health and Safety & SEAH/SH

Consultants engaged on will be subject to risks of workplace accidents for example through use of vehicles whilst engaged on project activities. Worker OHS will be addressed in the LMP to be prepared during project implementation. TA consultants will also be required to receive awareness training in and sign a Code of Conduct (CoC), including SEA/SH prior to undertaking project activities (see Appendix A of this ESMF).

DESIGN

6.4 Component 2 and 3 Technical Advisory - Design

Component 2 includes TA for "*detailed engineering designs, ancillary technical analysis (including but not limited to detailed technical assessments, site investigations, modeling, and environmental and social management studies to support identified priority investment options) and construction supervision*".

Component 3 includes TA for a range of demonstration projects in adaptation planning including various initiatives as set out above.

Specific Component 2 and 3 TA-related E&S impacts and risks are discussed as follows:

6.4.1 E&S Impact Consideration in Design

Potential impacts of Component 2 and 3 activities on ecosystems, geophysical features and communities will be avoided or mitigated by giving adequate design consideration to factors set out in this ESMF and by giving due recognition to issues that might arise during stakeholder engagement. To this end it will be important that bid documents and Terms of

Reference (TOR) for design works incorporate E&S risk management as a fundamental element.

Component 2 and 3 TA outcomes will reflect guidance from the ESMF, with design parameters being developed around E&S screening and risk mitigation measures to avoid impacts including ecosystem and physical impacts and effects on communities, . Broadly a “safety-in-design” covering risks to the built, social, physical and biological environments.

6.4.2 Consultants - Health and Safety & SEAH/SH

Although of low probability, Consultants may be injured in the course of their activities, particularly if they are driving in Majuro or are engaged in small boat activity in the course of TA activities associated with their work. Measures to address OHS will be addressed in the LMP to be prepared during project implementation. Consultants will also be required to receive awareness training in and sign a Code of Conduct (CoC), including SEA/SH prior to undertaking project activities (see Appendix A of this ESMF).

6.4.3 Selection of ancillary enhancements

In addition to coastal structures Component 2 provides a range of initiatives which will provide long term benefits to the people of Majuro and RMI as a whole. These include ancillary landscaping, street and pedestrian lighting, shade and screen tree planting, universal access design considerations, marine habitat restoration, water access (tidal steps, boat ramps, etc.), public recreational spaces and other amenity-enhancement features.

In addition to the RGF Component 3 initiatives will include: the development of resilient public spaces encompassing nature-based solutions that complement coastal resilience investments under Component 2: spaces for recreational use and enhanced public amenity (e.g., through better pedestrian connectivity and increase in green spaces) while improving urban drainage and acting as a buffer against storm surges and flood inundation; and urban improvements such as signage, lighting, pedestrian amenity, and landscaping.

The selection and design of these ancillary enhancement opportunities will need to reflect the aspirations of the community as identified in stakeholder engagement undertaken according to the SEP.

CONSTRUCTION IMPACTS

6.5 Component 2 - Potential Construction Impacts

Potential impacts arising from design and construction activities of coastal protection measures will depend on a number of factors including existing site conditions, the location of nearby assets and sensitive environmental and social receptors, and the scale and nature of the works proposed. Potential impacts are summarized below. Post-construction impacts are discussed in Section 6.7.

6.5.1 Impacts on Physical and Ecological Environment

6.5.1.1 Introduction

The project potentially entails a range of physical works in Majuro that will have low to substantial environmental risk. The low to moderate risk works include building renovations and small scale investments including new buildings. Substantial risk works such as building sea walls can modify coastal areas and potentially adversely impact natural habitats, ecosystem services (freshwater lens, natural protection from wave and wind erosion, food gathering areas) and cultural heritage (cemeteries, sacred sites). They can create waste and pollution in the form of sediment discharges.

Impacts can be exacerbated by the declining quality of marine habitat in urban areas and there might arise cumulative long term impacts on the natural functions of the ecosystems. However, impacts are predictable and likely to be localized.

6.5.1.2 Cumulative impacts from multiple sites

Project construction activities can have a range of direct and indirect impacts on the environment. Individual activities may result in negligible impacts, but the accumulation of these impacts from multiple activities across a wider region may result in major impacts, for example, directly result in fragmenting and reducing the quality of habitat, cumulative construction noise, light, and air pollution from increased human and vehicle traffic and construction.

Construction of multiple coastal works near one community might result in an excessively prolonged construction phase with associated adverse community impacts in that community. Construction sequencing will be designed to avoid any such impacts.

In addition, aggregate sourcing for multiple coastal works may create cumulative impacts that otherwise would not arise for individual works considered in isolation. The measures set out in Section 6.5.1.12 of this ESMF address this matter within the context of broader aggregate sourcing for Project works.

6.5.1.3 Water Quality and Sediment

There is potential for the discharge of sediment and contaminants as a result of construction activities. An increase in suspended sediments in waters the coastal zone[47] can be caused by earthworks and vegetation clearance activities as well as uncontrolled discharges of fine material from exposed soil and stockpiles through stormwater runoff and overland flow. This can lead to changes in the water quality of adjacent watercourses and coastal environments. There is also the potential for hydrocarbons from machinery operations and refueling activities impacting water quality.

6.5.1.4 Terrestrial Biodiversity and Habitat

Given limited terrestrial ecological habitat on Majuro, significant habitat impacts are considered unlikely. Nevertheless, environmental screening will be undertaken as set out in this ESMF (refer Section 8.1) which includes a biodiversity and natural habitat screening and assessment process for works.

6.5.1.5 Impacts on threatened or migratory species and their habitats

Coastal works undertaken as part of the Project will not interfere with recognized Important Bird Areas on Majuro (Section 5.1.6) and will not permanently interfere with habitats of migratory species. Environmental screening will be undertaken as set out in this ESMF (refer Section 8.1) to specifically address location relative to bird roosting or resting areas in Majuro.

6.5.1.6 Coastal Marine Biodiversity and Habitat

The potential impacts of design and construction activity relate primarily to:

- The direct loss of coastal marine habitat in the construction footprint;
- Water quality impacts associated with uncontrolled runoff of sediments from exposed earth or stockpiles in stormwater from construction areas, or from spills or leaks from hazardous substances; and
- Impacts on marine fauna and flora as a result of changes in water quality.

Environmental screening (Section 8.1) includes a biodiversity and natural habitat screening and assessment process for works, and specific mitigation measures (in addition to those related to water quality management) are to be developed in site-specific ESMP.

6.5.1.7 Air Quality

Fugitive emissions of particulate material can occur from earthworks and concrete construction activities. Mobile source emissions occur from machinery used for excavation and construction operations.

Emissions during construction are likely to consist of the following:

[47] Defined in the Coast Conservation Act as the area laying within a limit of twenty five (25) feet landwards of the mean high water line and a limit of two hundred feet seawards of the mean low water line

- Exhaust emissions from machinery (e.g. excavators, trucks, etc.) which will depend on age and condition of machinery; and
- Dust associated with the earthworks, traffic, material storage/ stockpile, concrete batching, quarrying or crushing materials (if using locally sourced aggregates);

Adverse effects of these emissions depend primarily upon the sensitivity of the local environment and proximity to local populations. Those located closer to the construction activities are most likely to be most affected whilst those located further away are likely be least affected. These effects can be classified generally as nuisance effects as a result of deposition of particulates onto places where people live or frequent.

Impacts of particulate matter depend on the size of the particles generated. Human health effects of airborne particulate matter are mainly associated with fine particles that are less than 10 microns in size (PM_{10}) and which are small enough to enter the upper respiratory tract. Coarser particulate matter, greater than about 10 to 20 microns, generally cause nuisance effects due to soiling of surfaces, visibility or irritation to eyes and nose. The large fraction (greater than 20 μm) is usually referred to as deposited particulate matter.

Proposed construction activities are expected to result in minor impacts relating to dust generation from earthworks activities, formation of soil and gravel stockpiles and from the movement of heavy construction vehicles. These impacts can be managed but can cause a nuisance for neighboring property owners and can create a hazard to road users.

Monitoring and implementation of measures to manage dust generation (such as the use of dust carts, etc.) will be covered in site-specific ESMPs (see Appendix B).

6.5.1.8 Noise and Vibration

Construction activities can increase ambient and peak noise levels. Increases in noise associated with construction are typically short term and are not considered to be significant given the adoption of standard mitigation measures (i.e., mufflers on vehicles, etc.).

Intense vibration can damage buildings, retaining walls and other structures as well as cause nuisance and potential health effects on people.

The main potential sources of noise and vibration for this project are likely to be:

- Delivery and placement of fill material in construction areas;
- Equipment and material deliveries to site by heavy vehicles;
- Aggregate crushing and/or concrete batching operations; and
- Installation works for structures (e.g. pile driving).

Any residential dwellings or commercial buildings in close proximity to works will be particularly sensitive to elevated noise and vibration.

Construction related traffic or activities could affect noise levels and potentially result in noise effects on nearby sensitive receptors such as local residents.

Managing the timing of works and site activities is the most appropriate management option for all the noise-producing activities.

No blasting is anticipated reducing the potential impacts from vibration. Monitoring and compliance with accepted EHS Guidelines will be required.

Overall, given the short-term nature of construction activity and adherence to Good International Industry Practice and EHS Guidelines, including monitoring, potential noise and vibration impacts during construction are not expected to be significant.

6.5.1.9 Hazardous Substances

The use and storage of hazardous substances (such as hydrocarbons, bitumen, cement, etc.) can impact on soil and water resources if they accidentally spill or leak into the environment or if they are not properly disposed of, or in the event of a fire in the case of flammable substances. Storage of hazardous substances will need to be managed (i.e., EHS Guidelines and adopted for fuel stored in bunded areas, refueling activities remote from watercourses on hard stand areas, fire-related precautions adopted, etc.).

6.5.1.10 Waste Management

Solid waste management is required for all physical works activities. Most activities will generate waste, and in RMI it is common for litter, ad hoc seawall structures and discarded materials (vehicles, whiteware) to be present in coastal areas and require removal as part of project implementation.

Waste management is difficult in RMI due to the lack of land available for engineered, sanitary landfills. There is a lack of capacity for the growth of domestic and commercial waste in Majuro, and large volumes of waste from infrastructure projects will have a significant impact on the life of the landfill.

This ESMF provides guidance to ensure the prioritization of resource recycling and reuse, such as reusing crushed concrete and fill, reusing building materials and recycling metal, and require waste management plans for all physical works. The reuse of good quality building materials is common and will be encouraged. Generic Waste Minimization and Management Procedures (WMMP) are included within Appendix B of this ESMF. Any solid waste generated will be managed according to the following hierarchy of treatment:

- Recycled / reused where possible – including for example reusing crushed concrete, re-using building materials and recycling metal where possible.
- Remaining waste and hazardous waste will be exported. This is typical for World Bank-funded projects in RMI..

Any hazardous waste generated as a result of the Project will be managed based on EHS Guidelines.

Construction workers will also require access to sanitation facilities.

Contractors will be required to prepare WMMP and Spill Management Procedures (SMP) (Appendix B of this ESMF) which set out strategies and actions required to reduce potential health and environmental risks associated with waste generation and disposal, including hazardous materials, management to avoid spills and other environmental releases, and identify opportunities for material recycling or reuse.

6.5.1.11 Invasive Pest Species

Vehicles associated with construction activities can be vectors for weeds and animal pests. There is the potential to introduce invasive species through vehicles and transport of soil, aggregate and construction materials particularly if this material is imported from overseas.

Prior importation of imported materials such as aggregates, the RMI Environmental Protection Authority (EPA), will need notice regarding the origin of the aggregates to ensure invasive or other contaminated materials are avoided.

Implementation of Good International Industry Practice mitigation measures (vehicle washing, sourcing weed free aggregates, etc.) and fumigation prior to export will minimize the risk of invasive pest introductions.

6.5.1.12 Aggregates

Coastal protection works will likely require large amounts of sand, gravel and rock (referred to here as aggregates).

These resources are often scarce in atoll environments where aggregate mining and dredging has resulted in a legacy of environmental damage through modified coastlines and exacerbated coastal erosion near Majuro. Aggregates will therefore need to be imported because the net impact of reef rock mining decreases coastal resilience and cannot be mitigated or offset. Alternatively, it may be possible to use sustainably sourced aggregates depending on the outcomes of the Sustainable Aggregates study currently underway under World Bank funded PREP II SPC Component (163699). The study may be completed in 2022 depending on COVID- 19 travel restrictions.

For Project use for all physical works under this project, local aggregates will need to:

(a) Be sourced from sites recommended by the Sustainable Aggregate Study;

(b) Have been subject of ESIA and ESMP completed under the ESF; and

(c) Be consistent with the ESF and environmental licenses issued by the relevant RMI agencies including RMIEPA and the HPO.

Given multiple construction activities it will be important to address total aggregate needs and cumulative impacts in any ESIA and ESMP.

Any aggregates and construction materials that cannot meet all the criteria outlined above, including rock rip-rap, will need to be imported and fumigated prior to use for Project purposes.

Subject to the results of the Sustainable Aggregates Study, local sources of "coarse aggregates" such as gravels or larger pieces such as rip-rap or armor rocks are likely to be discouraged for the Project due to environmental impact on the coastlines, the recovery of local sands and gravels using sustainable methods such as offshore mining (e.g. submersible pump dredging) may be considered for backfilling works, reclamation and concrete works (e.g.pre-cast solid blocks, tetrapods in lieu of natural rocks). Local sources of sand from dredging will need an ESIA to comply with the ESF to ensure the impacts are localized, have a low probability of serious adverse effects, entail no net loss of natural habitat (and net gain of critical habitat) and can be readily mitigated.

6.5.1.13 Greenhouse Gas Emissions

Greenhouse gas emissions (GGE) during construction will be generated by construction machinery. This impact will be temporary and is not expected to be a significant contributor to RMI's overall emissions, so long as vehicles are adequately maintained. Vessels bringing equipment and resources from overseas will generate emissions but are considered to be minor in terms of overall contribution to GGE.

Since any change or increase in greenhouse gas emissions are likely to be minimal, no assessment has been completed and no mitigation is proposed.

6.5.2 Social-Economic and Cultural

6.5.2.1 Introduction

The project includes a range of physical works in Majuro that will have low to substantial social risk. The low to moderate social risk works include building renovations and small scale investments including new buildings.

Substantial social risks relate to works like sea walls are likely to involve a greater number of workers, generate nuisance impacts such as noise, dust and traffic, and require and temporary or permanent land take depending on the approved designs. These impacts will be localized and are predictable and can be readily avoided and minimized through good design, effective stakeholder engagement and controls on construction methodologies.

6.5.2.2 Resettlement, Land and Asset Loss

Coastal protection works and other engineering-based adaptation strategies such as land-raising may have implications for land ownership and tenure, including issues associated with access, changes in current use (which may cause both benefits and impacts) and impacts to livelihood.

The extent and location of any land take will not be defined until project implementation and the number of sites affected is likely to be limited due to technical design and overall project budget. Experience with previous projects in RMI has shown that Government-leased land is preferable for the construction and installation of key infrastructure and should be prioritized for the project. Compulsory land acquisition is rare in RMI and will not be used in this case. Where private or customary land is required, EPA permits countersigned by the landowner will be required and land leases or easements will be obtained on a negotiated/voluntary basis, undertaken in a culturally appropriate manner with owners and users.

Locations to be prioritized under this project will be referenced to the Deltares' Majuro CVA Report, addressing vulnerable areas around Majuro and given the limited budget, areas where government assets and infrastructure are required to be protected, shall be prioritized.

Potential impacts to land, assets and access are addressed in this ESMF and the Project RF, including principles for voluntary land donation and mitigation to address risks in line with the requirements of ESS5.

6.5.2.3 Pedestrian and Vehicular Traffic

During construction it is likely that there will be an increase in the number of truck movements to and from work sites bringing in fill, construction material and earthworks equipment. This increased movement could result in increased traffic congestion and an increased risk of traffic incidents and general road safety issues (such as road crossing by pedestrians).

However, it is considered that any increase in construction traffic will result in only minor and short term impact on road users and minor and short term increases in congestion, noise and air quality effects on nearby sensitive receptors such as local residents following implementation of Good International Industry Practice mitigation measures.

Traffic related impacts on air quality, noise and vibration are discussed in Section 6.5.1.7 and Section 6.5.1.8 above.

Coastal protection works may impact on traffic flow on adjacent roads, depending on the footprint and construction methodology. Given Majuro's limited road network, absence of alternative routes and very high traffic density, disruption of adjacent roads and possibly Lagoon Road could pose significant delays in journey times and major inconvenience to road users. A 'participatory design approach' will be used to determine the best approach to maintaining access for all road users during construction for applicable works. Mitigation must include measures such as signage and fencing, speed restrictions, etc.

In addition, roads will be required to remain passable during construction activities to minimize potential impacts on all road users including pedestrians and cyclists.

Contractors will be required to prepare Traffic Management Plan(s) (TMP) prepared as part of their ESMPs (Appendix B), for all works to optimize management of construction vehicles and equipment and ensure safe passage for pedestrians and alternative routes around works for public vehicles.

Overall, the impacts from increased construction traffic to and from works sites, and construction related traffic impacts are considered to be minor for most works due to the finite duration of works with any impacts mitigated through implementation of Good International Industry Practice mitigation measures.

6.5.2.4 Disruption to Existing Essential Services

It is possible that disturbance or relocation of existing utility services (such as power, water, telecommunications) and/or health and education services may be required for some works given the narrowness of parts of Majuro.

Once the Component 2 works have been determined, utility and other service infrastructure within the proposed works footprint will be surveyed. Consultations with the relevant owners of utility infrastructure and service providers identified within the footprint will be necessary to negotiate the most practical solution for avoidance or relocation of that infrastructure to ensure that works construction activities do not impact provision of this service to the community.

6.5.2.5 Influx Workforce and Worker Behavior.

Workers imported from outside the immediate Majuro community present a potential risk in terms of unsolicited interaction with local communities that could result in drug / alcohol use, an increase in communicable diseases such are sexually transmitted diseases (STDs), HIV/AIDS, and heightened potential for Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH), human trafficking (HT) and/or violence against children (VAC).

While the number of workers required for specific project activities will not be determined until implementation when designs are confirmed, it is likely that works will be undertaken in close proximity to residential areas, although it is not anticipated that worker accommodation camps will be needed. If necessary, outside workers would likely be housed in existing facilities such as guest houses or rental properties. However, should construction camps be required the potential impacts can be mitigated by Good

International Industry Practice such as providing suitable sanitation, water, catering, recreation and controlling worker behavior.

Imported labor may be required for the project if adequate resources and skills are not available locally. Importing labor can result in a range of impacts including environmental (e.g. increased pressure on existing natural resources) and social in terms of local economy and livelihoods including inflation pressures, exacerbating vulnerability of marginal groups, increased pressure on local infrastructure and health services (e.g. potential increases in violence, alcohol / drug consumption, diseases, etc.), and social and community wellbeing.

Contractors will be required to adhere to the project Labor Management Plan (LMP)[48] as part of the CESMP, which will include a code of conduct for site workers induction, rules regarding alcohol use and interaction with the local community. (see Appendix A for a sample code of conduct).

A construction yard, site office, laydown areas and or stockpile areas may be required during construction depending on the location and scope of the works.

6.5.2.6 Archaeology and Cultural Heritage Resources

The location of physical works is currently not defined but cemeteries and other sites of cultural heritage are located in foreshore areas of Majuro and may be affected by coastal protection works or adaptation pilot sites.

This ESMF includes screening of potential cultural heritage locations in Majuro and provides procedures to identify cultural heritage risks as part of site specific ESIA and ESMP. The ESMF also includes a requirement for chance find procedures for Contractors to follow.

There is also the potential that the approaches to stakeholder engagement and to the development of 'place-based' adaptation strategies can protect and enhance the cultural connections and meanings associated with the location (these may be tangible or intangible heritage). This ESMF outlines the risk assessment processes for technical advisory studies to ensure that the requirements of this standard are applied in the approaches and outputs, including recommendations for future adaptation strategies.

The SEP also covers engagements that enable the integration of cultural heritage (tangible and intangible) into the approaches and outputs of technical advisory studies.

6.5.2.7 Worker Health and Safety

Construction activities can present significant health and safety risks to workers. These include potential risk to workers from vehicles, heavy machinery, working near water, exposure to heat/sun, overhead hazards (such as cranes), etc.

There is no legislation covering occupational health and safety in RMI. However, MWIU incorporates project specific OHS provisions in standard bid documents (See Appendix F); and Section 3315[49] of the Draft Marshall Islands Building Code which specifies adherence to OHSA fall protection rules.

To ensure OHS protection in the absence of national legislation, workers will be required to operate in accordance with relevant the WBG EHS Guidelines and Contractor staff will need to adhere to Occupational Health and Safety Procedures (OHSP) to be prepared by the Contractor which include working conditions.

Contractors shall also adhere to local labor practices and the Project Labor Management Procedures (LMP)[50] to prevent the exploitation of workers. In addition to workplace occupational safety, the LMP includes requirements to not use child labor; not discriminate workers in respect of gender, employment and occupation; to not use forced labor; and to allow freedom of association.

Unexploded Ordinance (UXO) are known to exist in RMI as a result of military actions throughout the Pacific during World War II from 1942-1945. While the risk is very low,

[48] To be completed prior to the engagement of project workers.

[49] "Worker Safety and Fall Protection"

[50] To be completed prior to the engagement of project workers.

there is a chance some UXO's may still remained undiscovered. Mechanisms for identifying and reporting UXO's will be included as part of the OHSP and included in a screening and Chance Find Procedure to be included in the CESMP.

6.5.2.8 Community Health and Safety

Construction activities can create health and safety risks for the public, particularly large scale earthworks or coastal protection works in public spaces and where heavy machinery is required. Dust, noise, vibration and increased traffic can affect or harm bystanders, residents and adjacent land users. Workers from other islands or countries can create harm through a lack of cultural awareness and anti-social behavior, and potentially introduce a risk of gender-based violence and sexual offenses. Children are often drawn to construction sites to play on equipment and materials which exposes them to multiple hazards. This ESMF contains requirements to prepare site-specific ESMPs to identify risks and mitigation measures for Contractors to follow to protect community health and safety, referring to the World Bank Group Environmental, Health and Safety Guidelines.

While the number of construction workers to be engaged through the project is unknown at this stage, potential labor-related community impacts can be addressed through the LMP including a code of conduct for construction workers (see Appendix A of this ESMF) to be prepared and followed during project implementation.

6.5.2.9 Vulnerable Groups

ESS1 states that "special consideration should be given to stakeholders that may be disadvantaged or vulnerable".

While some vulnerable groups may live near areas that will be potentially impacted by works construction activities, they are not specifically targeted or likely to be impacted over and above other landowners or groups and will not be excluded from any socio-economic benefit from the project.

Throughout design and implementation processes, particular attention will be paid to beneficiary groups who often lack voice and agency in planning and community/public decision-making processes to ensure their viewpoints are understood and major concerns addressed. This will involve the use of customized participatory engagement tools including women/youth/disability focus groups and special socio-economic surveys as needed. The Stakeholder Engagement Plan (SEP) provides further detail on specific and targeted measures for engagement with vulnerable and marginalized groups..

Road users and children residing in work areas or transiting through work areas to attend school are also vulnerable during works around Lagoon Road in particular[51]. As such, contractors will be required to prepare Traffic Management Plan(s) (TMP) prepared as part of Contractor ESMPs (Appendix B), for the works to manage their own vehicle movements and safe passage and alternative routes around works.

6.5.2.10 Visual Amenity and nuisance

Additional potential visual amenity impacts on from Project works could include minor vegetation clearance, increased heavy vehicle traffic, land disturbance, glare from lighting and the presence of works infrastructure. Amenity impacts of construction activities are expected to be minor, and mostly temporary

Design of coastal structures will give recognition to stakeholder concerns about impacts on visual amenity and nuisance as part of the stakeholder engagement under the SEP and through the Project participatory design process.

6.5.2.11 Sexual Exploitation and Abuse/Sexual Harassment (SEAH/SH)

The SEAH/SH risks associated with the Project are assessed as low. Project activities will include a combination of TA studies and construction of climate resilient infrastructure, which will predominately be undertaken in urban areas where supervision is possible.

Gender-based violence (GBV) rates are high in RMI, and women are vulnerable to trafficking, illegal sex work, unwanted pregnancies, harassment and violence. Sexual

[51] Lagoon Road is the main road from D-U-D to Laura and is the only road traversing that route. Any impediment to traffic lfow on Lagoon Road has major adverse implications for efficient transport on Majuro.

Exploitation and Abuse (SEA) and Sexual Harassment (SH) is prevalent with approximately 58% of men and 56% of women in RMI generally accept that violence against women is a normal part of marital relationships and 36% of RMI women have experienced either physical or sexual violence, with spouses being the most common perpetrator of both. About 22% of all RMI women report experiencing physical violence in the previous 12 months. Among women who have experienced physical violence, 72% reported that a current husband or partner committed physical violence against them, while 21% reported that they had experienced violence by a former husband/partner.[52]

Imported and transient workforces such as those required for the construction industry are known to contribute to these issues.

Women United Together Marshall Islands (WUTMI), headquartered in Majuro, is the primary GBV service provider in the RMI and offer a range of GBV prevention and response services. WUTMI is currently providing support to a number of World Bank projects in the RMI and are therefore familiar with Bank requirements. However overall capacity to address GBV and SEAH issues is constrained, particularly in the outer islands, due to limited funding and availability of appropriately trained professionals. SEAH/SH risks have been assessed, and appropriate mitigation identified in this ESMF.

The PIU shall require that all staff, consultants and contractors to undertake GBV, SEA/SH and HT and VAC awareness training, and sign a worker code of conduct as part of the CESMP (see sample CoC in Appendix A), to address GBV and other social risks. SEA and SH are specifically incorporated in the project Grievance Mechanism set out in the ESMF and which will be implemented for the Project.

6.5.2.12 Gender Mainstreaming

For women in RMI there are multiple barriers that stand in the way of equality and living a life free from violence, coercion and exclusion. In addition to women, there are other groups of people in the RMI that do not always benefit from equal opportunities. Priority areas of the GoRMI national gender planning include addressing female unemployment and a gender-stratified labor market, teenage pregnancy, violence against women and girls and limited access to justice and protection for women.

The Project aims at achieving gender mainstreaming in its design, management and implementation, to ensure barriers to participation of women are taken into account.

6.5.2.13 Stakeholder Engagement and Consultation Risks

Lack of meaningful, or insufficient consultation and project information disclosure consultation can result in distrust or discontent from project stakeholders.

It is important for the stakeholder engagement process to be inclusive, participatory and transparent, and conducted throughout the project lifecycle, to ensure multiple opportunities for learning about the project for all affected or interested stakeholder groups. Ensuring informed participation and consultations creating an atmosphere for open dialogue, ensuring the vulnerable are empowered and facilitated to participate and transparency are the principles in the approach to stakeholder engagement. Specific and targeted approaches will be adopted for engagements with vulnerable groups, are outlined in the SEP.

Key stakeholder considerations, principles and engagement approaches for the project are outlined in the project SEP, which also includes information on the Project Grievance Redress Mechanism (GRM) including channels for uptake of grievances and procedures for grievance resolution.

The SEP will be updated as the Project evolves to account for emerging needs of stakeholders.

6.6 Component 3 - Potential Construction Impacts

Component 3 involves:

[52] https://asiapacific.unwomen.org/en/countries/fiji/co/republic-of-the-marshall-islands

- Construction of a Resilient Government Facility (RGF) in Majuro accommodating critical components of the National Disaster Management Office (NDMO) and the MOF, as well as warehouse space for emergency goods and supplies.
- Demonstration projects in adaptation planning which could include the development of resilient public spaces encompassing nature-based solutions that complement coastal resilience investments under Component 2. Resilient public spaces could be used for recreational uses and enhance public amenity (e.g., through better pedestrian connectivity and increase in green spaces) while improving urban drainage and acting as a buffer against storm surges and flood inundation.
- Urban improvements such as signage, lighting, pedestrian amenity, and landscaping.

6.6.1 Impacts on Physical and Ecological Environment

The RGF is the principal aspect of Component 3 construction. Figure 14 shows the location of the RGF relative to existing activities in the area.

Potential impacts are summarized below.

6.6.1.1 Introduction

Component 3 potentially entails a range of physical works in Majuro. The RGF construction has low to moderate environmental risk given its location and restricted area of construction. The limited scale and nature of other Component 3 works will be unlikely to give rise to any adverse impacts but nevertheless will be subject to environmental screening as set out in this ESMF (refer Section 8.1).

6.6.1.2 Cumulative impacts

Component 3 construction activities are considered unlikely to involve cumulative impacts given the “one-off” nature of the RGF. However, aggregate sourcing for this building will contribute to cumulative impacts from aggregate sourcing for Component 2 coastal works. The measures set out in Section 6.5.1.12 of this ESMF address this matter within the context of broader aggregate sourcing for all Project works.

6.6.1.3 Coastal processes/erosion/sedimentation

The RGF is located inland adjacent to Lagoon Road and therefore impacts on coastal processes and erosion will not occur.

6.6.1.4 Water Quality, Sediment and Hazardous Substances - Stormwater

There is potential for the discharge of sediment and contaminants as a result of construction of the RGF.

The MWIU driveway and length of Lagoon Road adjacent to the proposed RGF are prone to flooding after moderate rain. This flooding arises from sediment blocking roadside drains in this low lying area. The design of the new building will need to take this flooding into account, particularly in respect of building access if nearby car parking is not available. During construction consideration will need to be given to avoiding sediment from the building site adding to the roadside drain sediment load and exacerbating exiting flooding.

These impacts will be mitigated as part of the CESMP required to be developed under this ESMF.

6.6.1.5 Biodiversity, Habitat and Ecosystem Services

The RGF is to be located on industrial land in a heavily modified block of industrial land with no habitat or biodiversity values.

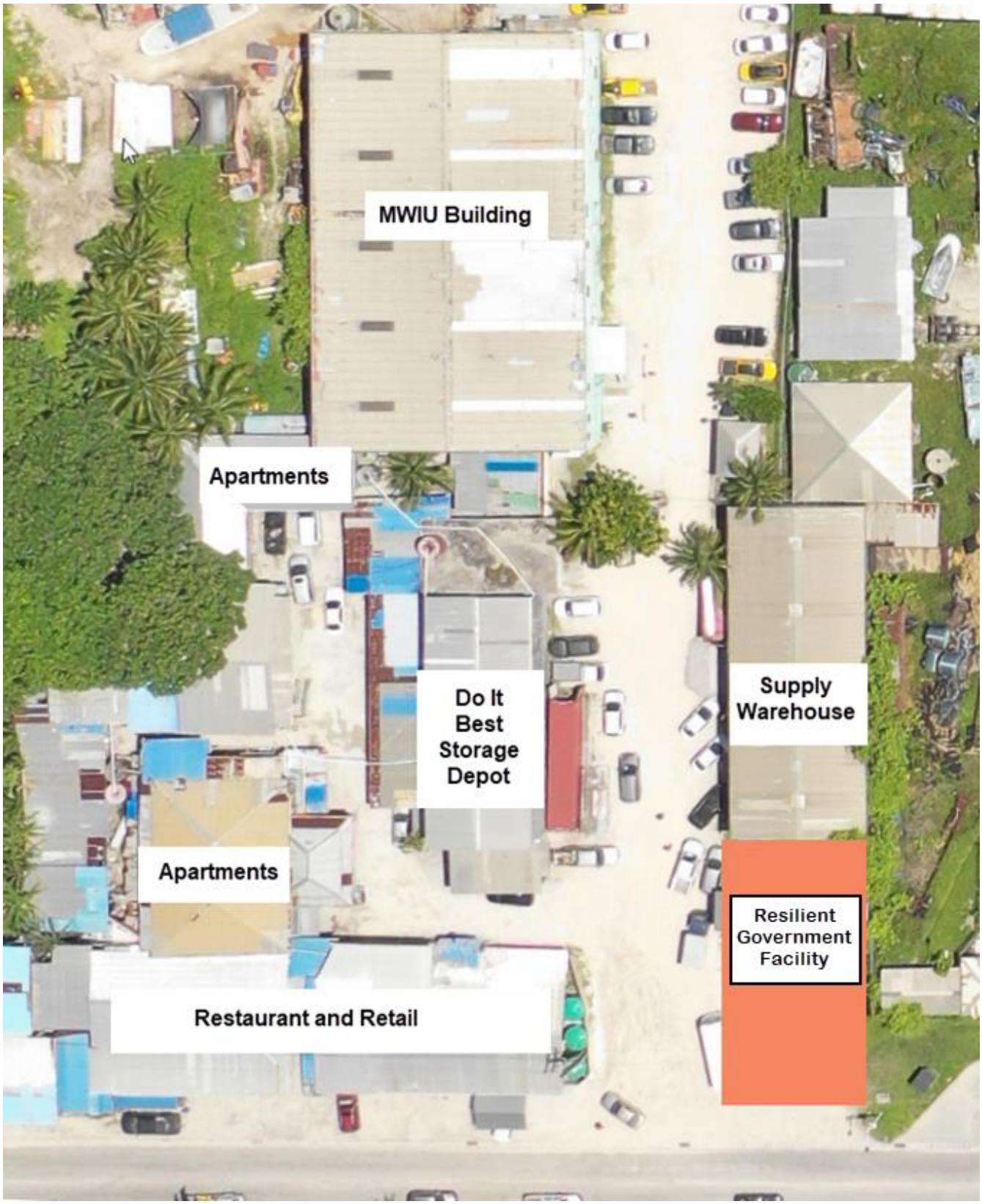

Figure 14: Location of Resilient Government Facility

6.6.1.6 Air Quality, Noise and Vibration

The RGF is located on the driveway into the MWIU depot and the Supply Warehouse. Immediate neighbors include MWIU, RMIEPA and various businesses.

Potential construction noise associated with building works should have no more than minor impacts given the industrial nature of the neighborhood.

Given the commercial/industrial location, community health and safety impacts are expected to be less than minor, although construction contractors will need to adopt OHSP covering risk to workers and community members in accordance with this ESMF.

Overall, given the likely short-term nature of construction activity and adherence to CESMP requirements set out in this ESMF impacts during construction of the RGF are expected to be fully mitigated.

6.6.1.7 Waste Management

This ESMF provides guidance to ensure the prioritization of resource recycling and reuse, such as reusing crushed concrete and fill, reusing building materials and recycling metal, and require waste management plans for all Component 3 works including the RGF. The reuse of good quality building materials is common and will be encouraged. Any solid waste generated will be managed according to the following hierarchy of treatment:

- Recycled / reused where possible – including for example reusing crushed concrete, re-using building materials and recycling metal where possible.
- Remaining waste and hazardous waste will be exported. This is typical for World Bank-funded projects in RMI..

Construction workers will also require access to sanitation facilities.

Contractors will be required to prepare WMMP and Spill Management Procedures (SMP) (Appendix B of this ESMF) which set out strategies and actions required to reduce potential health and environmental risks associated with waste generation and disposal, including hazardous materials, management to avoid spills and other environmental releases, and identify opportunities for material recycling or reuse.

6.6.1.8 Invasive Pest Species

There is the potential to introduce invasive species through transport of aggregate and construction materials particularly if this material is imported from overseas. Mitigation measures (vehicle washing, sourcing weed free aggregates, etc.) and fumigation prior to export will be adopted in accordance with this ESMF.

6.6.1.9 Aggregates

Construction of the RGF under Component 3 will likely require large quantities of aggregates.

Aggregate mining and dredging has resulted in a legacy of environmental damage through modified coastlines and exacerbated coastal erosion near Majuro. Aggregates will therefore need to be imported because the net impact of reef rock mining decreases coastal resilience and cannot be mitigated or offset. Alternatively, it may be possible to use sustainably sourced aggregates depending on the outcomes of the Sustainable Aggregates study currently underway under World Bank funded PREP II SPC Component (163699). The study may be completed in 2022 depending on COVID- 19 travel restrictions.

For Project use for all physical works under this project, local aggregates will need to:

(d) Be sourced from sites recommended by the Sustainable Aggregate Study

(e) Have had ESIA and ESMP completed under the ESF; and

(f) Be consistent with the ESF and environmental licenses issued by the relevant RMI agencies including RMIEPA and the HPO.

Given multiple construction activities under the Project it will be important to address total aggregate needs and cumulative impacts in any ESIA and ESMP.

Any aggregates and construction materials that cannot meet all the criteria outlined above, including rock rip-rap, will need to be imported and fumigated prior to use for Project purposes.

Local sustainable sources of lagoon sand may be available but, if not suitably managed, could have localized water quality and ecosystem impacts. Local sources of sand dredging will need an ESIA to comply with the ESF to ensure the impacts are localized, have a low probability of serious adverse effects, entail no net loss of natural habitat (and net gain of critical habitat) and can be readily mitigated.

6.6.1.10 Greenhouse Gas Emissions

Greenhouse gas emissions during RGF construction will be generated by construction machinery but any impact will be temporary and is not expected to be a measurable contributor to RMI's overall emissions.

Since any change or increase in greenhouse gas emissions are likely to be minimal, no assessment has been completed and no mitigation is proposed.

6.6.2 Social-Economic and Cultural

6.6.2.1 Introduction

The project includes a range of physical works in Majuro that will have low to substantial social risk. The low to moderate social risk works include building renovations and small-scale investments including new buildings.

Substantial social risks relate to works like sea walls are likely to involve a greater number of workers, generate nuisance impacts such as noise, dust and traffic, and require permanent and temporary land take. These impacts will be localized and are predictable and can be readily avoided and minimized through good design, effective stakeholder engagement and controls on construction methodologies.

6.6.2.2 Resettlement, Land and Asset Loss

The RGF is located within the area of a "quit claim"[53] over the RMIPA Delap port facility (See Figure 15). This area has been confirmed by the RMI Attorney General as government land[54] and therefore construction of the RGF will not give rise to land tenure issues.

Other construction activities under Component 3 are minor in scale and will be developed on government land, thereby avoiding land tenure issues.

6.6.2.3 Pedestrian and Vehicular Traffic

The area adjacent to the proposed RGF is currently used for car parking largely by Supply (12 vehicles) and by persons using the neighboring commercial properties. This area is frequently highly congested, especially when barge loading/unloading is taking place at the MWIU dock.

Any construction works will avoid blocking the driveway.

During construction it is likely that there will be an increase in the number of truck movements to and from work sites bringing in construction material and building equipment. This increased traffic could result in increased traffic congestion in the driveway and on adjacent Lagoon Drive, with an increased risk of traffic incidents and general road safety issues (such as road crossing by pedestrians).

Contractors will be required to prepare Traffic Management Procedures (TMP) as part of the CESMP (Appendix B), for the works to manage their own vehicle movements and safe passage and alternative routes around works.

[53] A "Quit Claim" is a formal renunciation or relinquishing of a claim – in this case the Quit Claim was signed by existing owners of land covering the Delap Port area in favor of GoRMI.

[54] Memorandum to RMIPA from RMI Attorney General Dated June 27, 2021

Figure 15: Resilient Government Facility site layout showing area covered by quit claim (in red) and existing neighboring buildings

6.6.2.4 Disruption to Existing Essential Services

Component 3 works will involve consultations with the relevant owners of utility infrastructure identified within and around the RGF footprint and Contractors will negotiate the most practical solution for avoidance or relocation of any infrastructure to ensure that works construction activities do not impact provision of this service to the community.

6.6.2.5 Influx Workforce and Worker Behavior

Workers imported from outside the immediate Majuro community present a potential risk in terms of unsolicited interaction with local communities; drug / alcohol use; and increases in communicable diseases such are sexually-transmitted diseases (STDs), HIV/AIDS. etc.

The construction workers for the RGF are likely to be locally sourced, however the actual numbers and sources of workers will not be determined until implementation, the RGF works are likely to be in a built-up industrial area of Majuro near to usual local construction labor sources. Imported labor may be required for the project if adequate resources and skills are not available locally. Contractors will also adhere to Project Labor Management Procedures (LMP)[55], as part of the CESMP, which is to include a code of conduct for site workers induction, rules regarding alcohol use, interaction with the local community, establish requirement for stakeholder committee/community liaison officer, etc.

6.6.2.6 Archaeology and Cultural Heritage Resources

The location of RGF does not potentially affect any cemeteries and other sites of cultural heritage.

6.6.2.7 Worker Health and Safety

There is no legislation covering occupational health and safety in RMI. However, MWIU incorporates project specific OHS provisions in standard bid documents (See Appendix F); and Section 3315[56] of the Draft Marshall Islands Building Code which specifies adherence to OHSA fall protection rules.

To ensure OHS protection in the absence of national legislation, workers under Component 3 will be required to adhere to works specific OHSP prepared by the Contractor which outlines labor and working conditions.

Contractors shall also adhere to the LMP[57] to prevent the exploitation of workers, in areas covering requirements to not use child labor; not discriminate workers in respect of gender, employment and occupation; to not use forced labor; and to allow freedom of association.

Given the history of development and the industrial nature of the RGF construction site UXO are not anticipated to occur at the site.

6.6.2.8 Community Health and Safety

Construction activities can create health and safety risks for the public, Children are often drawn to construction sites to play on equipment and materials which exposes them to multiple hazards, albeit this is a lower probability risk given the RGF site is in an industrial area. This ESMF contains requirements to prepare site-specific ESMPs to identify risks and mitigation measures for Contractors to follow to protect community health and safety, referring to the World Bank Group Environmental, Health and Safety Guidelines.

Potential labor-related community impacts will also be addressed through the LMP including a code of conduct for construction workers (see Appendix A of this ESMF) to be prepared and implemented during project implementation.

6.6.2.9 Visual Amenity and nuisance

Potential visual amenity impacts on from Project construction works could include minor vegetation clearance, increased heavy vehicle traffic, land disturbance, glare from lighting and the presence of works infrastructure. Amenity impacts of construction activities are expected to be minor, and mostly temporary

[55] To be completed prior to the engagement of project workers.

[56] "Worker Safety and Fall Protection"

[57] To be completed prior to the engagement of project workers.

Controls will be included in the CESMP to recognise to stakeholder concerns about construction disturbance as part of Community Health and Safety Procedures (CHSP).

6.6.2.10 Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH)

The Contractor shall require workers on the RGF to undertake GBV/SEA and SH awareness training, and sign a worker code of conduct as part of the CESMP, to address GBV risk (a sample CoC is contained in Appendix A). SEA and SH are specifically incorporated in the project Grievance Mechanism set out in the ESMF and which will be implemented for the Project.

6.6.2.11 Stakeholder Engagement and Consultation Risks

Stakeholder engagement for the RGF will include consultation with users of the shared driveway to identify sensitivities and develop mitigation measures to avoid traffic nuisance in the Traffic Management Procedures (TMP).

POST-CONSTRUCTION

6.7 Components 2 and 3 - Post-Construction Impacts

The potential post-construction impacts, of buildings and coastal protection works, including both positive and negative, are summarized below. This Section addresses long-term impacts of the finished works for both Components 1 and 2, including impacts of any maintenance works.

6.7.1 Potential Benefits

Following construction, coastal protection works, buildings and ancillary facilities funded under the Project will enhance Majuro's resilience to impacts caused by climate change.

6.7.2 Post-Construction Social and Environmental Impacts

6.7.3 Impacts on Physical and Ecological Environment

6.7.3.1 Coastal processes/erosion/sedimentation

In the longer -term, Coastal "seawall" structures can cause increased erosion (so-called "flanking erosion") in adjacent areas of the beach that do not have seawalls. Areas of active erosion on the shore provide sediment which is carried along the shore in longshore drift. With a seawall deployed in active erosion areas, sediment cannot be moved downdrift by natural longshore sand transport processes leading to the erosion areas simply being re-located down shore.

Long-term impacts of coastal structures on coastal processes will need to be specifically evaluated as part of ESA and ESIA. This will include coastal processes numerical modelling unless valid reasons are provided for an alternative approach.

6.7.3.2 Water Quality

In the longer term after soils have stabilized there is a low risk of potential for the discharge of sediment and contaminants from completed works to impact on threatened or migratory species and their habitats

However, along urban foreshores, completed seawalls can offer sheltered habitats for vermin such as feral cats and rodents which are common in Majuro. This can adversely affect birdlife (and can create a public health risk). .Environmental screening will be undertaken as set out in this ESMF (refer Section 8.1) to specifically address location relative to bird roosting or resting areas in Majuro.

6.7.3.3 Ecosystem Services

Ecosystem services in Majuro relevant to the Project include:

- Coastal aesthetics,
- Coastal protection;

- Benefits from fisheries – covering commercial, subsistence and recreational fishing for; pelagic, demersal, benthic, reef species both fish and invertebrates;
- Benefits from coastal recreation;
- Benefits from aquaculture
- Groundwater potable water supply

Following completion of construction works, structures associated with the Project are not expected to adversely affect ecosystem services in Majuro, particularly coastal ecosystems and groundwater benefits accruing from freshwater supply at Laura (Section 5.2.5). Whilst Project activities are intended to augment natural ecosystem services relating to coastal protection, design and construction of coastal structures under the Project will give explicit recognition to the importance of protecting and enhancing natural coastal features which contribute ecosystem services.

6.7.3.4 Air Quality, Noise and Vibration

In the longer term impacts from emissions to air; or operational noise and vibration will not arise from completed structures.

6.7.3.5 Hazardous Substances

Hazardous substances are not anticipated to be stored in the constructed RGF.

6.7.3.6 Greenhouse Gas Emissions

The RGF will be designed with the objective of resilient operation and will incorporate initiatives to minimize energy use and thereby reduce potential greenhouse gas emissions. Options will include efficient cooling systems, natural ventilation, water-saving plumbing, and using building materials with lower environmental impact. (refer Section 3.2.5)

In reality any change in greenhouse gas emissions is likely to be minimal, and no assessment has been completed and no mitigation is proposed.

6.7.3.7 Opportunities for enhancement

Component 2 provides a range of initiatives which will provide long term benefits to the people of Majuro and RMI as a whole. These include coastal protection measures, and ancillary landscaping, street and pedestrian lighting, shade and screen tree planting, universal access design considerations, marine habitat restoration, water access (tidal steps, boat ramps, etc.), public recreational spaces and other amenity-enhancement features.

The RGF provided under Component 3 will provide long-term support for the GoRMI which is experiencing inadequate office space for civil servants. Other Component 3 initiatives will include: the development of resilient public spaces encompassing nature-based solutions that complement coastal resilience investments under Component 2: spaces for recreational use and enhanced public amenity (e.g., through better pedestrian connectivity and increase in green spaces) while improving urban drainage and acting as a buffer against storm surges and flood inundation; and urban improvements such as signage, lighting, pedestrian amenity, and landscaping.

6.7.4 Social-Economic and Cultural

6.7.4.1 Resettlement, Land and Asset Loss

Long term issues relating to land tenure are considered unlikely to arise in respect of the RGF given that it will be located on land leased by GoRMI (See Section 6.6.2.2).

In respect of all other Project elements, potential long-term impacts to land, assets and access are addressed in this ESMF, including principles for voluntary land donation and mitigation to address risks in line with the requirements of ESS5.

6.7.4.2 Pedestrian and Vehicular Traffic

Overall, there will be minimal additional traffic use arising from completed structures including the RGF. Impacts on existing traffic patterns in Majuro will be less than minor.

6.7.4.3 Vulnerable Groups

The RGF building will incorporate accessibility features to ensure no operational impacts on vulnerable group.

6.7.4.4 Visual Amenity and nuisance

Coastal structures can significantly impact visual amenity, particularly if the structure is high relative to land-side ground elevations. Structures can also inhibit easy public access to the foreshore. Typically access stairways or ramps need to be provided on large coastal structures to ensure the safety of beach access by pedestrians.

Residential properties in parts of Majuro are located in very close proximity to the shoreline (for example Jenrok between Rita and Delap). Construction of high coastal structures (such as might be designed for high levels of overtopping protection) in close proximity to these dwellings will potentially adversely impact residents including through shading, blocking of cooling sea breezes and , elimination of sea views.

Design of coastal structures will give recognition to stakeholder concerns about impacts on visual amenity and nuisance as part of the stakeholder engagement under the SEP and through the Project participatory design process.

6.8 Wider-scale Impacts

The works likely to be implemented under the Project are not considered likely to result in trans-boundary or global scale impacts. The works may result in local impacts but these will not directly impact other countries outside of the RMI.

7. E&S RISK MITIGATION

7.1 Introduction

This section sets out options for mitigating environmental and social risks associated with each impact identified in preceding section. Consideration is given to each Component as summarized in Table 9:

Table 9: Risk Mitigation Measures by Component

Project Category	Component 1	Component 2	Component 3
Technical Advisory E&S risk management measures to ensure that TA avoids adverse impacts on affect natural habitats and ecosystem services and that any residual impacts will be remedied or mitigated.	**Table 10** TA sub-components only;	**Table 10** TA sub-components for "detailed engineering designs, technical analysis' E&S management studies; and construction supervision" and " capacity building/ training on coastal resilience and adaptation solutions."	**Table 10** TA sub-components for advice on "Demonstration Projects"
Design Phase Measures to ensure that design works take account of potential areas of E&S risk.	n/a – no design activities in Component 1	**Table 11** Primarily design of coastal resilience structures.	**Table 11** "Detailed engineering designs for facilities in Majuro" and strengthening, upgrading and construction of public buildings and facilities and pilot public space investments" Design of the RGF is addressed elsewhere.
Construction Phase Measures to ensure that construction activities take account of potential areas of E&S risk , with particular focus on Contractor management.	n/a – no construction activities in Component 1	**Table 12** Primarily construction of coastal resilience structures.	**Table 12** Contracting and supervision of land preparation activities and civil works for strengthening, upgrading and construction of public buildings and facilities and pilot public space investments
Post-construction Phase Measures to account for long-term post construction E&S impacts.	n/a – no construction activities in Component 1	**Table 13** Long term impacts (such as visual impact from seawall construction) included in design mitigation.	**Table 13**

7.2 Technical Advisory E&S Risk Mitigation – Components 1, 2 and 3

Table 10: Technical Advisory E&S Risk Mitigation - Components 1,2 and 3

Technical Advisory E&S Risk Mitigation – Components 1, 2 and 3 **Table 10**			
Activity	**Source of Risk**	**Summary of Potential Impact**	**Risk Mitigation Summary**
Recognition of RMI Land Tenure Context	TA outputs unacceptable to landowners	Stakeholder disapproval if the paramount decision-making position of landowners in the republic is not recognized in TA outputs.	Paramount role of landowners in RMI land tenure to be fully taken into account in developing any potential land-related TA outputs (for example land use zoning solutions) which might relate to land use patterns.
Stakeholder Engagement	Lack of or insufficient stakeholder engagement	Key stakeholders and community not meaningfully engaged during the TA stage, impacting outcomes of plans and studies and resulting in distrust / discontent from stakeholders.	Ensure SEP and GRM is implemented to ensure appropriate engagement and input and buy-in from stakeholders.
Sourcing E&S data	Reliance on out of date E&S data for TA activities.	Poor quality environmental and social data inadequate to inform the assessments, with high level of inaccuracy or gap filling required, leading to either additional investigative studies required or inaccurate conclusions and recommendations from the plans and studies.	TA team to formally validate all data sources, limitations and assumptions, and ensure accuracy and adequacy of the data collection process.
E&S screening	Inadequate E&S Screening	Sensitive receptors (cultural heritage, natural or critical habitats) not being adequately screened prior to commencement of studies and plan preparation, leading to these sensitivities not being fully understood or identified.	Identification of all potential E&S impacts (at least including all matters raised in this ESMF) on sensitive receptors, with thorough screening (Section 8.1 of this ESMF) and provision made for impact avoidance of mitigation.
TA outputs to be fit for purpose	Inadequate awareness of E&S risks by TA firms	TA outputs conflicting with E&S protections	The process for addressing E&S risks associated with TA outputs is as follows: 1. CIU Safeguards Team will review all TOR to verify inclusion of requirements to comply with the WB ESS, the Project ESMF, RF, SEP, LMP and all other instruments. 2. CIU Safeguards Team will evaluate proposals to verify methodology and capacity to appropriately address E&S risk assessment and/or mitigation. 3. CIU Safeguards Team will review draft and final TA outputs against the ESS, the Project ESMF, RF, SEP, LMP and all other instruments and make any recommendations to the PIU for improvements or changes.

Technical Advisory E&S Risk Mitigation – Components 1, 2 and 3 **Table 10**			
Activity	**Source of Risk**	**Summary of Potential Impact**	**Risk Mitigation Summary**
Consultant Health and Safety/Behavioral	OHS incident or SEA/SH incident attributable to TA consultant	Injury/death to consultant; or involvement in SEA/SH incident with range of potential consequences including injury or death, adverse effects to individuals in the community, police action, and general community disapproval.	OHS measures to be implemented; Codes of Conduct (CoC), including SEA/SH to be signed; TA consultants to receive CoC awareness training prior to undertaking project activities (refer LMP). Relevant OHS and SEA/SH control measures to be included as part of TA procurement documents.
Social impact assessment and mitigation protocols to be incorporated in RMIEPA approval process.	Failure of RMIEP procedures to account for social impact assessment and mitigation.	Existing RMIEPA processes don't recognize social issues including reference in construction environmental management planning - potentially increases risk of adverse impacts for major development works in RMI.	TA to assist RMIEPA in the formulation, implementation and follow-up of robust social impact assessment and mitigation protocols both in the approval process and in CESMP. TA also to identify opportunities for and assist implementation of enhanced operational cooperation between RMIEPA and MWIU in the design and construction of resilient developments.
E&S Impact Consideration in Design	Inadequate design consideration of E&S risk and mitigation factors set out in this ESMF	Potential impacts on ecosystems, geophysical features and communities	Design parameters to be developed around E&S screening and risk mitigation measures set out through the ESMF. Adopt a "safety-in-design" approach to mitigate risks to the built, social, geophysical and biological environments
Implementation of RMI Building Code	Inefficient resource use in building works in RMI	Failure to implement the RMI Building code could potentially lead to lack of resilience in new buildings in RMI, and inefficiencies in use of scarce building resources.	E&S requirements have been incorporated to the Building Code as follows; • Interior Environment and Energy Efficiency • Soils and Foundations • Environmental Loads • Social requirements provide as follows; • Accessibility • Safeguards During Construction • Encroachments into Public Right-of-way • Gendered facilities in public places e.g. washrooms._____

Technical Advisory E&S Risk Mitigation – Components 1, 2 and 3 **Table 10**			
Activity	**Source of Risk**	**Summary of Potential Impact**	**Risk Mitigation Summary**
			E&S Risk and Mitigation Protocols, although not specifically mentioned in the Building Code, can be incorporated under Chapter 33 (Safeguards During Construction), for example by means of a Standard Checklist Form that will need to be submitted by the Contractor and prior issuance of Building Permit. TA to assist MWIU with implementation of the Draft RMI Building Code – particular focus on integrating E&S risk awareness and mitigation protocols into the Building Code implementation.
E&S gaps in RMI Permit Processes	RMIEPA procedures fail to account for social impact assessment and mitigation. Lack of formal coordination between MWIU and RMIEPA	Absence of need to recognize and avoid social impacts via RMIEPA processes potentially increases risk of adverse impacts for major development works in RMI. Lack of interagency coordination could lead to longer term E&S factors being overlooked in MWIU construction activities.	Provide capacity building assistance to RMIEPA in the formulating effective social impact assessment and mitigation protocols both in the approval process and in CESMP. Identify opportunities for enhanced operational cooperation between RMIEPA and MWIU in the design and construction of resilient developments.

7.3 Design Phase E&S Risk Mitigation – Components 2 and 3

Table 11: Design Phase - Component 2 (Coastal Resilience Investments) and Component 3 (Resilient Public Facilities)– Environmental, Social, Health and Safety Risks

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
Design to incorporate resilience and resource efficiency	Lack of resilient building design	Inefficient use of resources (aggregates, water and energy) in resilient buildings under Component 3. Risk to life from unsafe building materials, fire risk, building egress design. Reduced building life without considering climate-related hazards.	Design to give particular recognition to resource limitations in Majuro including aggregates, water, energy and waste disposal. For new buildings and building renovations (Section 3.2.5) follow requirements set out in the "Infrastructure and Equipment Design and Safety" requirements of ESS4: Community Health and Safety, which include that Project structural elements (buildings) will be designed and constructed by competent professionals, and certified

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			or approved by competent authorities or professionals. Structural design will take into account climate change considerations, as appropriate". Design consideration to be given to natural lighting, natural ventilation, sustainable building construction materials, renewable energy generation such as solar panels and rainwater harvesting. Consideration should also be given to the potential to reuse building materials such as crushed concrete. Both freshwater and energy are scarce on Majuro. Inclusive design approach to be adopted to apply WBG EHS Guidelines for building design to take into account fire and life safety in design, natural hazard resilience and accessibility to minimize harm and provide universal access/maximize accessibility during the life of the structure/facility. Design stage to incorporate stakeholder consultations on concept designs including engagement with prospective users and with local communities.
Land access based on lease documentation.	Unclear or unavailable lease documentation..	Unavailability of leases covering properties where construction is proposed under the Project can lead to potential for landowner/land user disputes and can jeopardize construction works under the project.	Sufficient lead time to be provided to enable lease document acquisition. Construction works to be designed through participatory design approach involving engagement with all potentially affected landowners and community from preliminary design stage. Property losses adjacent to works will be minimized and where unavoidable will be restored through mitigation measures outlined in the Resettlement Framework (RF).
Design based on technical E&S assessment	Loss or modification of coastal area biodiversity and habitats	Design failing to account for sensitive habitat areas resulting in adverse biodiversity or ecological impacts.	Mitigation of potential ecological habitat impacts through screening and design-related avoidance. Biodiversity and natural ecological habitat impacts will be screened and assessed for each works site, site specific environmental and social impact assessment and management plans to ensure no net loss of natural habitat, net gain of critical habitat and the identification of enhancement opportunities. ESMP and CESMP to be prepared to provide measures for the avoidance and mitigation. Design team to include EHS clauses in bid documents and require

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			CESMP.
Design based on technical assessment - Impacts to cultural heritage from coastal protection works	Impacts on cultural heritage features and artifacts	Loss or modification of cultural heritage features and artifacts, graves, particularly those located close to the foreshore areas of Majuro	Mitigation of potential impacts on cultural, archaeological or historically significant sites through screening and design-related avoidance. Cultural heritage and archaeological impacts to be screened and assessed for each works site, and CESMP to outline specific avoidance and mitigation measures. Undertake meaningful consultations with stakeholders to understand potential impacts on cultural heritage. Design team to include EHS clauses in bid documents and require CESMP in accordance with this ESMF. Contractors to implement Chance Find Procedures as provided in Appendix E.
Loss of land and non-land assets	Grievances from Asset owners.	Permanent loss of land or restricted land use due to land access requirements for project works including construction of coastal resilience works and resilient government building. (Impacts identified through works design and due diligence process in advance of works.)	Avoidance of severe impacts on livelihood or those requiring physical displacement through screening process. Government-leased land will be prioritized. Compulsory land acquisition will not be used. Stakeholder consultations will be undertaken to determine potential impacts on land. Due diligence to assess losses, consultation with affected persons, preparation of resettlement instrument (resettlement plan or voluntary land donation plan). The Resettlement Framework developed under the project will provide guidance on addressing impacts to land. Full implementation of resettlement instrument mitigation measures prior to commencement of works. Access to Project GRM
Temporary use of land for laydown area	Grievances from Asset owners.	Temporary loss of land due to use of land for laydown area.	Sole use of government land for laydown areas or use of land previously used for similar activities, etc. If required voluntary land donation (VLD) process to be initiated. If no VLD, then rental allowance to be provided. At end of rental period land to be returned in original condition.
Use of aggregate materials	E&S impacts from unsustainable aggregate	Use of material from non-sustainable sources (i.e., coastal sand and coral reef materials) can lead to long	Only material from licensed international land-based sources to be used, unless an agreed sustainable source of such materials in RMI

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
in construction activities.	extraction.	term erosion, loss of habitat or adverse impact on other resource users.	has been identified in the Sustainable Aggregates Study currently underway under PREP II, and such use has been approved for use by the GoRMI. The following process applies in assessing imported aggregates for the Project – ▪ Where aggregates are sourced from a Part 1 Country[58], no further assessment and documentation is required; ▪ Where aggregates are sourced from a Part 2 Country[59], the proponent is required to provide relevant documentation and other evidence to show aggregates are sourced from a licensed quarry(s) and that proper regulations of the source country are fully complied with. ▪ Overseas sources to be vetted to ensure they meet ESF requirements. ▪ CIU to conduct due diligence to validate the documentation and information submitted by the proponent. For the avoidance of doubt, sourcing of aggregates from RMI will be subject to: (i) identification in the Sustainable Aggregates Study that such sourcing will be sustainable; (ii) prior approval from GoRMI that such source(s) are acceptable; and (iii) confirmation that the proposed extraction operation complies with ESS1 (including preparation of an ESA and ESMP for that operation), and is in general accordance with WB EHS Guidelines. Design team to include above in bid documents for works involving use of aggregates.
Waste materials generated during construction	Disposal of waste materials.	Pollution arising from disposal of waste materials at unlicensed facilities.	Material to be reused in construction process. Waste material to be disposed of offshore.

[58] Part 1 Countries are Developed Countries as per WB listing

[59] Part 2 Countries are Developing Countries as per WB listing

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
activities.		Contribution to overloading of Majuro landfill.	Design team to include the following in bid documents: a. Reference to this ESMF and WMMP (Appendix B). b. Requirement for Contractor to prepare CESMP, WMMP and 'Spill Management Procedures (SMP). c. Wastes to be recycled / reused where possible – including for example reusing crushed concrete, re-using building materials and recycling metal where possible. d. Remaining waste and hazardous waste to be exported. This is typical for World Bank-funded projects in RMI.
Loss of access to coastal area.	Landowners, wider community.	Permanent or temporary loss of access to coastal margin due to works.	Design engineer to identify during preliminary design where coastal margin access restrictions and issues may arise. Avoid or minimize access restrictions through participatory design approach, and follow the mitigation hierarchy in line with ESS1 to ensure coastal margin access is maintained during and following construction. Access restriction impacts to be screened and assessed for each works site, and if required a site-specific ESMP is to be prepared to outline specific avoidance and mitigation measures. Undertake meaningful consultation with landowners, reinstatement of access etc. to understand potential impacts on and access to land Design team to include E&S clauses in bid documents to avoid unnecessary access restrictions or disturbance, and require Contractor to prepare CESMP.
Change in waterflow as a result of coastal protection works installation.	Drains and coastal areas.	Changes in erosion potential as a result in changes in water flow.	Design of structures to minimize erosion potential such as concrete side drains / culverts, energy dissipation structures installed. Design team to include E&S clauses related to sediment and erosion procedures in bid documents and require Sediment Control Procedures (SCP) in CESMP. Water flow / hydrology impacts to be screened and assessed for each works site, and if required prepare a site-specific ESIA and ESMP to outline specific avoidance and mitigation measures,

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			including any appropriate technical studies.
Discharges from operational surfaces.	Surface waters.	New pathways for contaminants, including refuse (e.g. trash, plastic bottles/bags, etc.) to enter waterbodies.	Design of features to minimize ingress of stormwater contaminants (e.g., catchpits), and specifications for regular maintenance required. Design team to include E&S clauses related to stormwater contaminants and discharges in bid documents and require SCP and WMMP in CESMP.
Use and accommodation of imported labor.	Local community.	Environmental (increased pressure on existing natural resources) economic and livelihoods (inflationary pressures, exacerbate vulnerability of marginal groups, etc.), infrastructure and services pressure, health (potential increases in violence, alcohol/drug consumption, sexually transmitted diseases, etc.), social and community wellbeing.and SEA/SH.	Identify whether imported labor required. LMP to be developed during project implementation to provide guidance in managing labor influx, including the requirement for a Workers Code of Conduct which will need to be signed by all workers. Relevant provisions to be included in bidding documents and in the CESMP.
Avoiding sensitive receptors (cultural heritage, natural or critical habitats) through design	Local community / environment	Sensitive receptors not being adequately screened, leading to these sensitivities not been fully understood or identified during design phase, resulting in inappropriate design, or unnecessary impacts. The TA studies such as land use planning and adaptation strategies have the potential to prioritize and protect cultural heritage sites at risk of climate change.	Avoidance where possible or mitigation of potential impacts on sensitive receptors through screening and design-related avoidance (e.g. participatory design approach'). Sensitive receptors including cultural sites will be screened and assessed for each works site in line with ESS8, and if required, provisions will be included in site specific ESMPs to provide the avoidance and mitigation measures. Undertake meaningful consultations with stakeholders to understand potential impacts on sensitive receptors.
Ecosystem Services	Loss of benefits accruing from ecosystem services	Project activities are intended to augment natural ecosystem services relating to coastal protection, such provision should not adversely impact other ecosystem services.	Design and construction of coastal structures under Component 2 to give explicit recognition to the importance of protecting and enhancing natural coastal features which contribute ecosystem services.
Visual Amenity and Nuisance	Community Grievances	Coastal structures can significantly impact visual amenity, particularly in parts of Majuro are located in very close proximity to the shoreline (for example Jenrok Village located between Rita and Delap Villages). Construction of high coastal structures (such as might be designed for	Design of coastal structures to give recognition to stakeholder concerns about impacts on visual amenity and nuisance as part of the stakeholder engagement under the SEP and through the Project participatory design process

Table 11 Design Phase E&S Risk Mitigation - Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
		high levels of overtopping protection) in close proximity to these dwellings will potentially adversely impact residents including through shading, blocking of cooling sea breezes and , elimination of sea views.	

7.4 Construction Phase E&S Risk Mitigation – Components 2 and 3

Table 12: Construction Phase - Component 2 (Coastal Resilience Investments) and Component 3 (Resilient Public Facilities) – Environmental, Social, Health and Safety Risks

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
Generation of vehicle particulates; and dust as a result of construction activities in Project works locations including coastal protection works such as sea walls, laydown areas	Soil disturbance, spillage from trucks transporting material	Dust creating nuisance (and potential health issues) where works occur in close proximity to adjacent residential / commercial properties.	Construction vehicles to be regularly serviced and maintained to prevent the emission of visible particulates. The number and size of stockpiles to be minimized, and have appropriate containment to prevent dust discharges. Dust suppression (i.e. a water cart, or similar) to be used to dampen active work areas and stockpiles in dry conditions. Washing vehicle tires and sweeping the road on a daily basis to prevent the spread of soil and dust outside of the works area. Banning fires on site.
Construction activity creating noise and / or vibration disturbance in Project works locations including coastal protection works such as sea walls, laydown areas	Complaints from local community	Noise and / or vibration disturbance to adjacent households where works occur in close proximity	Contractor to ensure noise attenuation in accordance with the WHO and WB EHS guidelines. Effective consultation and engagement to be undertaken so people are fully informed can raise questions or concerns, and can make alternative arrangements for work or accommodation during works, in accordance with SEP. Strict adherence to specified working hour requirements (07:00 to 19:00 Monday to Saturday). Regular maintenance of machinery, equipment and vehicles to ensure noise reduction e.g. mufflers, use of air brakes, etc. Reduced speed limits. Monitor and investigate complaints through GRM. Consider noise barriers where appropriate. Contractor to identify structures within zone of vibration impact, and assess condition of structure. Noise monitoring at site and sensitive receptors.
	Contractors	Noise/ vibration impacts on health of workers	Contractors to be reviewed to ensure adherence to OHSP. Workers provided with PPE including ear protection. Regularly maintenance of machinery, equipment and vehicles.

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			Include relevant measures in bidding documents and CESMP.
Construction activities in Project works locations – Water quality and hazardous materials.	Changes in water quality in adjacent receiving environment, including surface water and ground water aquifers.	Ground disturbance leading to runoff of contaminants (e.g., sediment, hydrocarbons, cement, etc.) in stormwater and changes in water quality of adjacent receiving environment.	Contractor to prepare and implement SCP detailing procedures to ensure ground disturbance in minimized, and measures to control offsite movement of disturbed sediments hazardous substance and other discharges, effective stormwater control, and monitoring requirements.
		Ingress of contaminants (such as hydrocarbons) due to spillage in laydown areas, refueling activities entering groundwater.	Contractor to prepare and implement a SMP, detailing procedures to minimize release of contaminants such as fuels stored in bunded areas, refueling activities on hardstand areas etc. Additional controls for hazardous substances including oils and hydrocarbons are provided below.
		Loss and/or discharge of hazardous material into the aquatic and/or terrestrial receiving environment, or groundwater aquifer.	Storage of all hazardous substances and chemicals (including fuel) and refueling is to occur at least 50 m away from watercourses. Conduct daily inspections of machinery with particular attention to repair of hydraulic and fuel systems to prevent leakage. Careful handling of un-hydrated cement material and wet cement and fuel to avoid spills. The Contractor to have spill kits available and staff be trained in their use. Immediate notification of PIU in case of any fuel or chemical spill, to report the incident and should be reported to the RMIEPA within 24 hours.
On-site construction activities	Coastal marine resources (fish, coral reef habitat, seagrass beds, etc.)	Ground disturbance leading to runoff of contaminants (e.g., soils, hydrocarbons, cement, etc.) in stormwater and deposition on downstream sensitive ecological environment. Direct loss of habitat and/or resources in footprint of works. Loss of endemic and/or protected species.	In addition to the mitigation proposed for water quality, mitigation measures are to include identifying all discharge points, and avoiding disturbance of sensitive habitat where possible. Where it is not possible a planting regime is to be implemented to restore the lost habitat.
Construction activities in Project works locations including laydown areas.	Sensitive terrestrial fauna / fauna particularly in sensitive ecological areas.	Direct loss of habitat in construction footprint or disturbance of terrestrial fauna and fauna	CESMP to detail procedures to minimize footprint and disturbance of terrestrial fauna and fauna particularly in sensitive ecological areas.
Invasive species.	Terrestrial fauna / fauna.	Introduction of invasive aquatic and / or terrestrial pest / weed species as a result of construction activities.	Imported aggregates to be sourced from weed free locations. Washing of vehicles

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			Exposed soil to be reseeded and revegetated.
Construction activity impacting biodiversity	Environment	Construction phase creating adverse impacts on biodiversity elements through habitat loss in the case of sea walls and any other coastal works,	Biodiversity and natural ecological habitat impacts will be screened and assessed for each works site, if required, site-specific ESMP will be prepared to provide the avoidance and mitigation measures. Design team to have EHS clauses in bid documents and require CESMP.
Disposal of solid or liquid waste.	Environment.	Uncontrolled disposal of solid or liquid waste material into the aquatic and / or terrestrial receiving environment.	The Contractor to prepare WMMP, to cover all aspects of general waste generation, storage, disposal and reuse. Workers to have access to rubbish receptacles, which allow for the collection and segregation of wastes. Solid wastes to be collected and disposed of at an appropriately licensed disposal facility. Paper, bottles and cans shall be transported to local recycling facilities, if available. Construction workers to have access to on-site toilet and hand washing facilities. Wastewater from toilet facilities to be collected and disposed of at a licensed wastewater facility. Stockpiling, burying, burning or dumping of solid or liquid wastes to be strictly prohibited.
Use of aggregate materials in construction activities.	Environmental risk	Use of material from non-sustainable sources (i.e., coastal sand and coral reef materials).	Only material from licensed international land-based sources to be used, unless an agreed sustainable source of such materials in RMI has been identified in the Sustainable Aggregates Study currently underway under PREP II, and such use has been approved for use by the GoRMI. The following process applies in assessing imported aggregates for the Project – ▪ Where aggregates are sourced from a Part 1 Country[60], no further assessment and documentation is required; ▪ Where aggregates are sourced from a Part 2 Country[61], the

[60] Part 1 Countries are Developed Countries as per WB listing

[61] Part 2 Countries are Developing Countries as per WB listing

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			proponent is required to provide relevant documentation and other evidence to show aggregates are sourced from a licensed quarry(s) and that proper regulations of the source country are fully complied with. ▪ Overseas sources to be vetted to ensure they meet ESF requirements. ▪ CIU to conduct due diligence to validate the documentation and information submitted by the proponent. For the avoidance of doubt, sourcing of aggregates from RMI will be subject to: (iv) identification in the Sustainable Aggregates Study that such sourcing will be sustainable; (v) prior approval from GoRMI that such source(s) are acceptable; and (vi) confirmation that the proposed extraction operation complies with ESS1 (including preparation of an ESA and ESMP for that operation), and is in general accordance with WB EHS Guidelines. Design team to include above in bid documents for works involving use of aggregates.
Waste materials generated during construction activities.	Disposal of waste materials	Pollution arising from disposal of waste materials at unlicensed facilities.	Contractor to prepare a WMMP, to cover all aspects of construction waste generation, storage, disposal and reuse. Material reused in construction process. Residual waste material disposed of offshore.
Permanent loss of land and non-land assets particularly as a result of coastal protection works.	Land and asset owners and users	Permanent loss of land or assets, or restricted land use due to land access requirements for project works.	Screening for environmental and social risks and impacts to land to be conducted as part of subproject preparation to identify any impacts on land and access to land and determine any requirements for acquisition. Implementation of any construction related measures set out in the land access procedures (e.g. Land Access Due Diligence report, Voluntary Land Donation report or Resettlement Plan), including consultation requirements set out in the RF and SEP. Contractor to consult with the owners of the assets that require

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			relocation in order to determine the most appropriate re-siting the affected infrastructures, and undertake relocation where appropriate. Should unexpected impacts occur to land or assets as a result of construction activities, community grievances are to be addressed through the Grievance Mechanism.
Temporary loss of land and/or permanent loss of non-land assets such as crops, fences, ornamental gardens, etc. in laydown areas.	Asset owners	Impacts due to construction affecting private property or restricting access. (Impacts that fall under construction method for which the contractor is responsible for determining)	Land required for construction facilities is to be secured by the Contractor as required, via VLD if suitable. If no VLD then lease agreement is to be negotiated and agreed between the civil works Contractor and the landowner prior to mobilization, and rental allowance to be provided if appropriate (in accordance with RF). At end of rental period, any temporarily acquired land is to be rehabilitated to a pre-works condition or in a condition acceptable to the landowner. Should unexpected impacts occur to land or assets as a result of construction activities, community grievances are to be addressed through the GM.
Disruption of road access for users due to works.	Road users	Permanent or temporary loss or restriction of access for road users / local community.	Contractor to maintain road access throughout construction (i.e. alternative route(s) / crossing(s) are made available). The local community is to be informed of the upcoming works (including maps, dates and times of operation) through letter drops to all adjacent properties, and the installation of signage (as per SEP). TMP to be implemented and adhered to throughout construction. Any road user complaints to be to be addressed through the GRM and complaints register.
Disruption of access to adjoining properties due to works.	Residential and commercial properties, and other land owners	Temporary restriction on access to, or use of, adjoining privately owned land adjacent to works.	Contractor to maintain access to adjoining properties throughout construction. Vehicular and pedestrian access to adjacent properties and adjoining roads shall be maintained throughout construction except for essential works where temporary closure shall be minimized. Any road closures are to be undertaken and managed in

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			accordance with the MWIU standard practices. TMP to be implemented and complaints addressed through the GM.
Disruption to Existing Services	Utility Providers / local community	Disturbance of underground or overhead utility infrastructure resulting in a disruption of services.	Contractor to engage with service providers prior to works commencing to confirm the likely presence and locations of services and develop a plan for minimizing disruption of any services. The Contractor shall be liable for any services disrupted as a result of the construction works.
Movement of construction vehicles; and increased traffic due to construction	Local Community / Contractors / Pedestrian & Vehicular Traffic	Potential human hazards due to movement of vehicles and machinery on all roads and potential for increase accident risk around work areas. These risks could include increased traffic congestion, risk of traffic incidents, and general road safety issues (such as road crossing by pedestrians), Disruption of key transportation networks (i.e. replacement of bridge or causeway) could pose significant delays in journey times and overall inconvenience to road users.	Contractor to implement TMP in consultation with MWIU and government representative agencies, which will include as a minimum: • Controlled crossing points for local community; • Construction activities to be restricted to relevant working hour requirements (07:00 to 19:00 Monday to Saturday); • Regular consultation with roadside residents as per the SEP; • Implementation of strict speed limits in settlement areas; • project vehicles to be equipped with warning lights to ensure high visibility to other road users; • Traffic control supervisor to be used; • Alternative routes and/or temporary crossings to be identified; • Strong enforcement of project regulations regarding drug and alcohol use and levels of fatigue; and • Implementation of GM during the project to ensure community concerns or issues are addressed. Contractor to communicate TMP to local community as described in the SEP and CESMP. Establish grievance mechanism to facilitate uptake and redress of grievances Requirement of TMP to be included in bidding documents.
Use and accommodation of	Local community	Environmental (increased pressure on existing natural	Establish/form stakeholder committee(s), where future work plans,

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
imported labor		resources) economic and livelihoods (inflationary pressures, exacerbate vulnerability of marginal groups, etc.), infrastructure and services pressure, health (potential increases in violence, alcohol/drug consumption, sexually transmitted diseases, etc.), social and community wellbeing and SEA/SH.-	site requirements, labor and material requirements and problems are discussed, in order to prioritize employment of locals, where appropriate. Undertaking induction training for all site workers on culture, tradition, custom and expectations of local communities. Transparency and open communication with the communities on issues that affect them. Any imported labor related issues to be addressed through the Labor GM and complaints register.
Use of underage workers	Contracted workers	Use of workers under the age of 18 in hazardous project activities.	Contractor agrees to contract provisions that require no workers under the age of 18 are to be employed in hazardous activities. Workers to provide legally recognized documents to confirm they are not under the age of 18. Implementation of the project Labor Management Procedures (LMP).
Forced labor	Contracted workers	Use of forced labor on the project.	Contractors confirm that they are not using forced labor. Where employment occurs directly with Government, employees are not considered forced by virtue of the fact as they have signed a contract. Implementation of the project Labor Management Procedures (LMP).
Sites, features or artifacts of cultural, archaeological or historical significance.	Cultural heritage	Physical disturbance of cultural, archaeological or historically significant sites (e.g. grave sites, historical artifacts etc.) due to proposed construction activities particularly during coastal protection works.	Sites in close proximity to the works are to be mapped and communicated to the Contractor workers to minimize risk of disturbance. Should sites of cultural, archaeological or historical significance be deemed at risk of indirect disturbance as a result of project activities, the CIU is to develop strategies to protect these sites in consultation with the local community and the relevant Government department. Contractors to implement a chance find procedure should cultural

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			resources be uncovered during construction. (Refer Appendix E of this ESMF)
Worker Health & Safety	Construction workforce	Potential injury to workers as a result of construction activities. Potential for workers to spread communicable diseases such as COVID.----------	Prepare LMP which will include guidance around OHS, including consideration of risks associated with COVID. Contractor to prepare and implement an OHSP which is to be approved in writing by the PIU prior to commencing works, and train workers in its content. Contractor to conduct training for all workers on the OHSP and health and safety matters as required by good engineering practice. Workers to be provided with appropriate PPE suitable for civil work such as safety boots, helmets, gloves, protective clothes, goggles and ear protection (as appropriate) at no cost to the workers. Contractor to provide potable water supplies, first aid facilities, a toilet and hand washing facilities at works sites. All workers to receive awareness raising on, and required to sign a Code of Conduct (CoC) (Appendix A of this ESMF) which outlines acceptable behavior for the workers and their role, including reference to GBV, SEA/SH. Include relevant OHS requirements into bidding documents.
UXO	Workers and local community	Unexploded Ordinance (UXO) are known to exist in RMI as a result of WWI military actions. While the risk is very low, there is a chance some UXO's may still remained undiscovered.	Mechanisms for identifying and reporting UXO's will be included included in a screening and Chance Find Procedure to be included in the CESMP.
Community Health & Safety	Local community	Potential issues arising to local community as a result of construction activities in the vicinity of the works sites, including risks associated with imported labor.	Contractor to consult with adjacent landowners prior to commencement of work on site, as directed by the SEP. Undertake meaningful consultation with stakeholders in line with the SEP to enable questions and concerns in regard to activities to be raised. Temporary signage and boundary fences are to be used to deter

Table 12 Construction Phase E&S Risk Mitigation - Components 2 and 3-			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation Summary**
			pedestrian access into construction areas. Inform the community of works activities, timing and the GM process. Contractor OHSP to include the requirement to educate all site staff on the prevention and treatment of communicable diseases including dengue, zika, hepatitis, HIV/AIDS and Covid-19. The Contractor and all workers (including imported labor) associated with the project are to comply to RMI Covid-19 OHSP, and international WHO standards, and include Covid-19 provision in the OHSP. All contractor site staff required to sign a Code of Conduct (CoC) (see Appendix A of this ESMF) which outlines acceptable behavior for the workers and their role, including reference to GBV, SEA/SH. Ensure relevant mitigation measures are included in bidding documents

7.5 Post-Construction Phase E&S Risk Mitigation – Components 2 and 3

Table 13: Post-Construction Phase - Component 2 (Coastal Resilience Investments) and Component 3 (Resilient Public Facilities) – Environmental, Social, Health and Safety Risks

Table 13 Post-Construction Phase E&S Risk Mitigation Components 2 and 3			
Activity	**Source of Risk**	**Description of Potential Impact**	**Mitigation**
Discharges from operational surfaces	Surface waters and groundwater aquifers	Introduction of contaminants from operational surfaces New pathways for contaminants, including refuse (e.g. trash, plastic bottles/bags, etc.) to enter waterbodies.	Regularly maintain and clear drainage channels, culverts and stormwater control features installed as part of construction phase (e.g. catchpits), to prolong life of infrastructure.
Access across constructed works	Local community particularly children	Increase in accidents relating to impeded direct access to coastline.	Evaluate potential for installation of dedicated access across structures; install warning signage
Coastal processes	Interference with coastal processes and erosion	In the longer -term, Coastal "seawall" structures can cause increased downstream erosion.	Long-term impacts of coastal structures on coastal processes will need to be specifically evaluated as part of ESA and ESIA. This will include coastal processes numerical modelling unless valid reasons are provided for an alternative approach.
Habitat for vermin	Increased numbers of vermin (rats and feral cats)	Completed seawalls can offer sheltered habitats for vermin such as feral cats and rodents which are common in Majuro. This can adversely affect birdlife (and can create a public health risk).	Environmental screening will be undertaken as set out in this ESMF to specifically address location relative to bird roosting or resting areas in Majuro.

8. PROJECT E&S RISK MANAGEMENT PROCEDURES

8.1 Technical Advisory - Components 1, 2 and 3 –

All TA studies and works under Components 1,2 and 3 will follow the steps set out below to ensure that E&S risks are considered and taken into account:

1. Terms of Reference (TOR) for all studies and other works will be reviewed by CIU Safeguards Team and WB E&S specialists prior to procurement notification. This review will ensure that TOR in each case make appropriate reference to E&S risks, this ESMF and applicable standards where relevant.
2. Each proposal received will be reviewed by the CIU E&S Safeguards Team to verify that proponents have adequately addressed E&S risk and measures set out in the TOR as appropriate. The CIU Safeguards Team will advise the PIU in writing of any concerns or issues.
3. Project procurement will ensure E&S concerns or issues raised by CIU Safeguards Team are fully accounted for in selection process.
4. All deliverables are to be reviewed and approved by the CIU E&S Safeguards Team and WB E&S specialists to determine adequacy of attention to E&S risks.

8.2 Construction - Components 2 and 3

8.2.1 Environmental and Social Risk Screening

Once works have been identified and prioritized, environmental and social screening is to be undertaken by the CIU Safeguards Team (supported if necessary by E&S consultants engaged by the PIU,) as part of the feasibility and design process for Component 2 and Component 3 works.

Detailed E&S Screening (during preliminary design)

This screening process is to be completed using Forms 1 and 2 in Appendix D.

From this assessment, the sub-projects will be rated **Low**, **Moderate**, **Substantial** and **High** based on four elements[62]:

(a) Sensitivity of E&S receptors and scale of the physical works, operations, demand for resources, creation of waste and emissions, sensitivity of vulnerable persons;

(b) The nature and magnitude of impacts (duration, intensity, reversibility, complexity) and possibility of mitigation measures;

(c) Capacity of the PIU and CIU, RMI legislation and availability of resources to manage E&S risks;

(d) Contextual risks – COVID-19, remoteness from markets for expertise, equipment or services;

Risk Ratings will be applied using the activity risk ratings for Forms 1 and 2 as follows:

Criteria for Screening Forms 1 and 2	**Sub-*Project* Risk Rating** (Highest risk rating applies)
Less than minor risk to E&S receptors, absence of vulnerable persons; minor scale operations; no non-government land acquisition (unmitigated)	Low

[62] World Bank. 2019. Bank Directive. Environmental and Social Directive for Investment Project Financing.

Criteria for Screening Forms 1 and 2	**Sub-*Project* Risk Rating** (Highest risk rating applies)
All risks to sensitive E&S receptors incl. vulnerable persons; large scale operations; (unmitigated)	Moderate
Some or many risks from above (unmitigated) identified but all risks can be suitably mitigated (except as identified below)	Moderate
Large Scale Earthworks (unmitigated)	Substantial
Biodiversity or cultural heritage risks (unmitigated)	Substantial
Issues with land, assets and / or livelihoods that may lead to social conflict.	Substantial
Large scale impacts on land owners and occupiers and asset owners/users.	High.

Screening Report

An '*E&S Screening Report*' will be prepared after the works are further defined as part of the preliminary design process to feed into the design and impact mitigation process. This report is to include:

- An outline of the project environmental and social risk screening process;
- Completed '*Environmental and Social Screening Forms*' (Appendix C, Forms 1 to 3);
- A summary of the Risk Rating (Low, Moderate, Substantial, High);
- A summary of the findings of the screening process, (as directed by the Appendix C, Form 2 – E&S Assessment and Management Plan Requirements; and Form 3 – Agreed E&S Documents); and
- Recommendations for the environmental and social assessment and preparation of environmental and social risk management instruments.

The *E&S Screening Report* will be prepared by the CIU Safeguards Team (supported by environmental and social consultants engaged by the PIU, as required) and submitted together with the feasibility study report to the WB for review and clearance.

On the basis of the environmental and social screening, the project will adopt one of the following approaches:

1) Adopt **Code of Environmental Practice (COEP)** (Appendix A) if works are assessed as Low as above.

2) **Further redesign of the works** assessed as Moderate, Substantial or High to avoid/minimize environmental and social impacts including potential land and/or asset loss where practical (in which case the *E&S Screening Report* will need to be prepared again, after completion of the redesign). The design team, PIU, environmental and social consultants and CIU Safeguards Team are to work together to identify risks and mitigation measures in design in compliance with the WB ESS, ESMF, EHS Guidelines and Good International Industry Practice.

3) Preparation of a works specific ESIA and ESMP if works are assessed as Moderate, Substantial or High. Scope to be determined by CIU Safeguards Team (subject to approval from the WB E&S risk management team) and based on level of E&S risk. To be undertaken in parallel with detailed design.

The E&S screening process is illustrated in the flow chart in Figure 16.

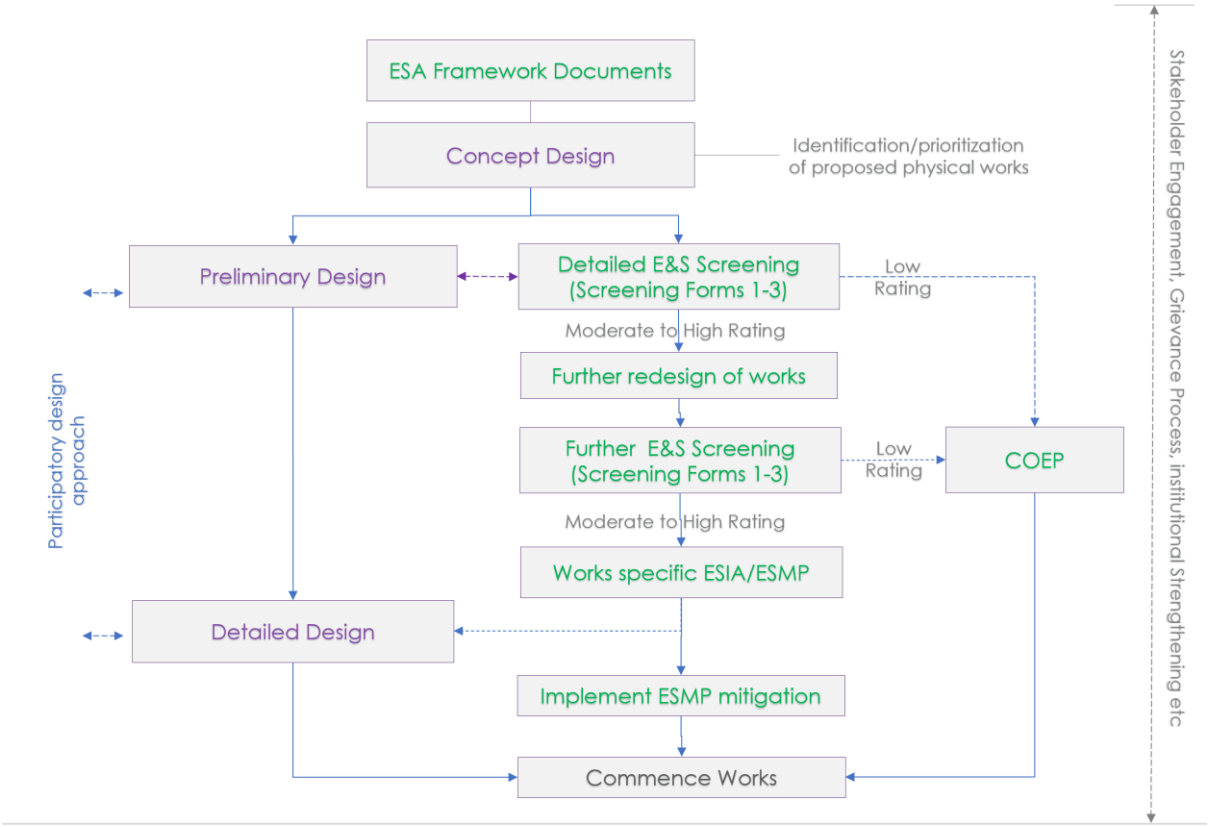

Figure 16: E&S screening process in relation to the ESMF.

The Project will incorporate a 'participatory design approach' to ensure the design avoids and minimizes E&S impacts. This approach will provide potentially affected persons and communities and stakeholders an opportunity to participate in the decisions related to the design that affect them (discussed further in the RF).

8.3 Preparation of ESIA/ESMPs

8.3.1 Works Specific ESIA and ESMP

In the event that potential works impacts are extensive with a corresponding risk rating of 'Moderate' to 'High' a works specific ESA and/or ESMP is to be prepared.

Depending on the nature and scale of the works proposed, and if indicated by screening, it may be necessary for an ESIA to be prepared, to adequately develop appropriate mitigation measures for the potential works impacts, including the potential preparation of additional technical studies in order to inform the impact assessment. The exact scope of the ESIA will depend on the nature and extent of potential impacts. An ESIA will be required for any works screened as "Substantial" or 'High'. 'Moderate' rated risks may be addressed by ESMP . Both instruments to involve stakeholder engagement proportionate to the scale of activities undertaken.

Should the E&S screening determine that an ESIA is required for the Component 2 works then it should adhere to the indicative outline included in ESS1 – Annex 1.D as well as comply with RMI Environmental Legislation and Regulations. As a minimum the ESIA should include the following key elements:

(i) Executive Summary;

(ii) Description of works;

(iii) Methodology of ESIA

(iv) Baseline Data;

(v) Environmental and Social Risks and Impacts;

(vi) ESMP including Mitigation and Monitoring Measures; and

(vii) Analysis of Alternatives.

Additionally, the works specific ESMP is to include as a minimum:

(i) Mitigation Measures;

(ii) Monitoring Requirements;

(iii) Capacity Building and Training;

(iv) Implementing Mechanism

(v) Implementation Schedule and Cost Estimates; and

(vi) Integration of the ESMP with other project documents and Plans

Should a works specific ESIA/ESMP be required, the PIU may need to engage an external E&S consultant to prepare these documents on its behalf and overseen by the CIU Safeguards Team.

The works specific ESIA/ESMP should also be prepared alongside, and integrated with, the design process, participatory design approaches, stakeholder engagement, and any Land Access Procedures Plan/s required (such as the Land Access Due Diligence Report, Voluntary Land Donation Report or Resettlement Plan), as set out in the RF, as required on a works specific basis.

In order to achieve the best outcome, the ESMP will need to be prepared in an integrated way with the design consultant and with land access agreements. This would need to be an iterative process where the ESMP informs design occurring concurrently with the design process.

8.4 Civil Works Contractor Requirements

8.4.1 Environmental, Social, Health and Safety Clauses in Bid Documentation

E&S and OHS clauses are to be incorporated in bid documents for contracted works.

Works-specific mitigation to be inserted in construction contractor bid documents are outlined in Appendix C of this ESMF.

The CIU Safeguards Team will review and revise draft bid documents as necessary.

8.4.2 Contractor ESMP

Construction contractors will be required to prepare a CESMP prior to the commencement of construction to give attention to the range of E&S management areas applying to relevant construction works (see Appendix B).

For large projects this might involve preparation of dedicated Management Plans[63]; for smaller projects it will be sufficient for the CESMP to set out management procedures. The CIU Safeguards Team will provide guidance on which particular approach is required in each case, based on the nature and scale of risks identified in the scope of works.

Areas for particular E&S management attention in the CESMP include:

- Sediment Control
- Waste Minimization and Management
- Spill Management
- Traffic Management includes road safety
- Emergency Management and Response, including chance find procedures

[63] See Appendix B of this ESMF for outlines of respective management procedures in the context of the CESMP.

- Community Health and Safety
- Environmental and Social Monitoring
- Occupational Health and Safety

Contractors are also required to adhere to project Labor Management Procedures (LMP)[64] as part of the CESMP, which is to include a code of conduct (See Annex A this CESMP outline) for site workers induction, GBV/SEA and SH awareness training, rules regarding alcohol use and interaction with the local community.

8.5 Implementation of ESMP and CESMP

Implementation of the relevant sections of the ESMP during feasibility, design, project prioritization, land owner negotiations and other activities will be the responsibility of the design and supervision consultants reporting to the PIU, with support from the CIU Safeguards Team.

Design and supervision consultants will also be responsible for ensuring the Contractor Implements the ESMP and CESMP. PIU will maintain oversight of these activities with support, training, oversight and auditing by CIU Safeguards Team.

9. STAKEHOLDER ENGAGEMENT, CONSULTATION AND PARTICIPATION

Stakeholder engagement is critical in the rollout of resilient infrastructure and access to improved services but also critical in the development and implementation of the institutional and democratic frameworks for resilience planning.

Key stakeholders include those who may be affected by construction works, but also wider interested parties and beneficiaries including those who will benefit from improved planning and land use development across the country. The preliminary ESA in this ESMF informs the stakeholder engagement plan (SEP) , which has been prepared in compliance with ESS10 and which defines the direct and indirect stakeholders and proposes how communication will be managed during the preparation and implementation of the project. This includes a Grievance Mechanism (GM). The SEP and GM will support all activities under the project, including land acquisition, construction and TA activities.

Distinct vulnerable or disadvantaged groups and their specific needs as identified in Section 5.2.6 are incorporated into the SEP. The SEP also assesses and provide strategies for the engagement of various stakeholders during project implementation, including the environmental and social instruments and the strategic planning tools and prior to and during the construction works period. Consultations will be carried out in Marshallese and in culturally appropriate formats. Environmental and social instruments will be publicly disclosed by the Borrower and the World Bank.

Consultations during the project preparation phase have been undertaken in the context of a tight timeframe for instrument preparation and the limitations associated with COVID 19. Direct consultation was held with the Ministry of Works Infrastructure and Utilities, the RMI Environmental Protection Agency and the Marshall Islands Conservation Society. In addition through 2021 consultations were undertaken as part of the Majuro CVA study undertaken by Deltares covering the exact subject matter of the Project. Appendix H sets out details of this consultation where email, phone and video conferencing was used to discuss the project with key stakeholders. To cover the event that travel restrictions continue into project implementation the SEP will detail similar methods to be used to avoid face-to-face meetings during project implementation.

The Grievance Mechanism will be managed similar to other projects across the World Bank portfolio in RMI. It will be administered centrally by the CIU safeguards team who will record, monitor and report on grievances and outcomes. For construction works , the CIU will support the contractors and the PMU to resolve issues and otherwise elevate the grievances to the project Steering Committee.

[64] To be completed prior to the engagement of project workers.

The GM process and contact details will also be published online and communicated during consultation activities..

SEA/SH related grievances will be referred to WUTMI. The person responsible for receiving SEA/SH related grievances receive training on handling and referring such grievances.

The stakeholder engagement process for the broader Project is described in detail in the SEP[65] including stakeholder engagement undertaken to date a part of project preparation and those required throughout the Project.

Set out below is a summary of key considerations regarding stakeholder engagement relevant to the ESMF.

A wide range of direct and indirect stakeholders have been identified for consideration throughout the project, which are further outlined in the SEP.

Works for each of Components 2 and 3 will have a discrete list of stakeholders identified and engaged with:

- Landowners and Occupiers – called project Affects Persons (PAPs) under ESS5.
- Local Communities (including nearby or indirectly affected villages, community interest groups, road users etc.).
- Relevant Local and National Government departments and agencies.
- Traditional / community leaders.
- Others (including NGOs, CBOs, businesses, utility providers etc.).

A variety of mechanisms will be utilized to consult with the identified stakeholders during implementation of the ESMF including:

1. Community meetings involving women, men and youth;
2. Separate meetings with specific interest groups and their representatives as required (including women, youth, senior, religious, vulnerable households, conservation groups, NGO/CBOs);
3. Key informant interviews with relevant government staff (e.g. RMIEPA) and community/traditional leaders;
4. Environmental NGOs and community groups interested in environmental and matters; and
5. Informal conversations with other interested parties near the works sites.

To ensure broader participation consultations are to be undertaken at venues, times and in a language that does not disadvantage any particular groups (e.g. women, or vulnerable households). Consultations will be carried out in local languages and in culturally appropriate formats. Environmental and social instruments will be publicly disclosed by the World Bank and MWIU.

Consultations will also take into consideration COVID-19 restrictions and precautions and will use non face-to-face methods where appropriate such as email, radio, social media and other online tools to provide information on the project, to seek feedback and to disclose environmental and social management instruments. Email, phone and video conferencing to conduct stakeholder consultations.

Vulnerable groups are to be targeted through representative organizations including women, disability and youth associations. Remote communities which are often low income will be included through their traditional and formal representatives.

Other considerations to be taken into account through the stakeholder engagement process for the project are outlined in detail in the SEP.

Should grievances arise from technical advisory, design, institutional strengthening, construction or operation impacts from activities associated with the Project, a Grievance Redress Mechanism (GRM) has been developed through which affected parties can resolve such issues in an efficient, unbiased, transparent, confidential timely and cost-effective manner. This GRM is outlined in the Project RF and SEP.

[65] MURP Stakeholder Engagement Plan'

Consultations with stakeholders were undertaken during the preparation of the project ESMF.

The final draft of the ESMF, was made available by MWIU to key stakeholders to review and provide comment prior to the documents being finalized. The 'final' ESMF as well as respective ESIA and ESMPs will be publicly disclosed on the WB website (www.worldbank.org) as well as relevant RMI government websites (www. https://rmi-mof.com/).

In addition, Stakeholders are to be regularly informed and updated on the Project throughout by way of consultation meetings and public notices (e.g. radio, newspaper etc., as appropriate), and signs and/or notice boards are to also be erected at the works site. Details of disclosure activities and requirements are set out in the SEP.

10. INSTITUTIONAL ARRANGEMENTS, CAPACITY BUILDING AND IMPLEMENTATION

10.1 Institutional Responsibilities and Structures

ESMF implementation will require the full participation of personnel from Implementing Agencies in collaboration with other GoRMI Officials. Implementation responsibilities for the ESMF along with any works specific ESIAs/ESMPs will be distributed between these stakeholders.

The relevant institutional structures to be either utilized (for existing institutions) or established for the Project including roles and responsibilities are shown in **Figure 17** and described below.

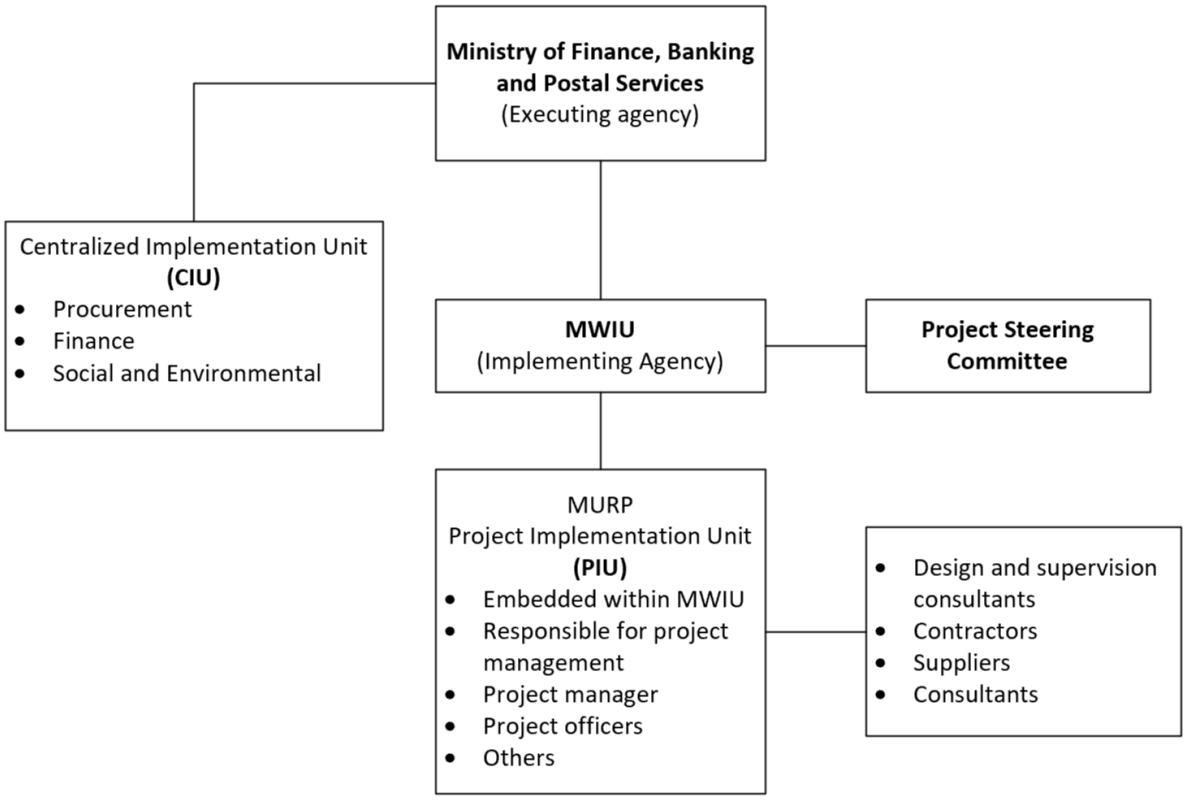

Figure 17: Implementation arrangements for the Project .

10.1.1 Coordination among GoRMI Departments

The Project is designed to be implemented over a five-year period following project effectiveness. The Ministry of Finance Banking and Postal Services (MOF) will be the Executing Agency (EA) while the Ministry of Works, Infrastructure and Utilities (MWIU) will be the Implementing Agency (IA).

A Project PIU will be established within MWIU. All contracts with consultants, contractors and suppliers will be signed off by the MWIU Secretary with the administration and contract management tasks of the contract being implemented by the PIU as their day to day responsibility. The MWIU Secretary will sign off on all invoices from consultants and contractors and authorize PIU to make payments.

During project implementation, the CIU Safeguards Team will assist MWIU with E&S aspects.

Both the CIU and MWIU are familiar with WB ESF and project-specific E&S management instruments from their experiences with other WB-funded projects.

10.1.2 PIU Implementation Support

The PIU will coordinate the implementation of the Project in collaboration with MWIU management, with support from CIU.

The PIU team involves a Project Manager, Project Engineer and Project Officer(s). These team members will be selected (among other things) on the basis of experience with WB or other donor projects, and appropriate expertise to support the TA aspects of the Project.

The PIU will have overall supervision of ESMF implementation. Environmental and social risk management will be the responsibility of the PIU, supported by the CIU Safeguards Team. The PIU will ensure the availability of an appropriate budget for ESMF implementation.

10.1.3 CIU Implementation Support

The CIU provides support to core implementation functions needed for all WB portfolio projects in RMI including, but not limited to, procurement, financial management and E&S risk management. The CIU E&S Safeguards Team currently comprises an International Environmental Specialist, International Social Development Specialist, a Majuro-based Safeguards Officer (Environment) and a Safeguards Office (Social[66]). CIU E&S risk management support for Ebeye is also provided by the Ebeye CIU Program Officer.

The CIU team members responsible for these functions report to the CIU Program Manager and will provide services and hands-on support to the MWIU as the Implementing Agency for preparation, implementation and capacity building activities. The CIU will be supported during project implementation by E&S consultants engaged under the Project for due diligence, community engagement and instrument preparation as needed. Project implementation responsibilities however will remain with MWIU.

10.1.4 Role and Composition of the PSC

A Project Steering Committee (PSC) will be established and chaired by MWIU. Recent experience from the existing PREP II project suggests that ensuring the appropriate representation of all parties in the Project Steering Committee (PSC) will be critical for success. The PREP II PSC structure could be considered.

The PSC will provide general oversight and policy direction to Project stakeholders during project implementation, convene key stakeholders in the event of disagreement and periodically review project progress.

10.2 Implementation Roles and Responsibilities

The management, coordination and implementation of the ESMF and its integral tasks will be the responsibility of the PIU with support from the CIU Safeguards Team.

[66] Currently under recruitment

The proposed organizational structure and management functions for implementing the ESMF is described below. While the MWIU may decide to adapt this structure according to its needs and funding, the various components listed and described below should be represented in the organizational structure in order to successfully implement the ESMF.

10.2.1 PIU Project Manager

The PIU will be initially staffed with a PIU Project Manager, Project Engineer, and Project Officer, all based in Majuro (at MWIU offices in Delap) with additional PIU support (such as administrative support) to be recruited as required.

The PIU Project Manager will be responsible for working collaboratively with all stakeholders.

The PIU Project Manager will also be responsible for the following tasks in relation to implementation of the ESMF with support from the CIU Safeguards Team as required:

- Approve the content of any future revisions to the ESMF, based on technical review and recommendations by CIU Safeguards Team;
- Initiate the commencement of, and review the content of, the E&S screening forms and report to be undertaken by the CIU Safeguards Team;
- Approve content of any ESIA/ESMPs prepared for specific works;
- Implement and monitor all stakeholder engagement strategies/plans for the project;
- Coordinate, facilitate, and where appropriate participate, in face-to-face stakeholder meetings with on-the-ground support from the PIU and CIU Safeguards Team;
- Oversee implementation of any recommended environmental and social mitigation measures set out in the ESMPs for the specific works including CESMP; and
- Prepare monthly and quarterly monitoring reports.
- In addition, the PIU Project Manager will be responsible for the tasks set out in the RF.

Efforts will be made to keep stakeholders informed on Project progress including establishing a direct line of communication between to the PIU Project Manager as the key stakeholder contact points. The PIU Project Manager can then direct stakeholder contact to any other appropriate project implementation groups (e.g. CIU Safeguards Team, design consultants, E&S consultant and contractor) as appropriate. This direct line of contact to the PIU Project Manager will allow for on-going updates and discussions outside of formal consultation activities and allow for stakeholder concerns and suggestions to be taken into account as they arise.

10.2.2 PIU Project Engineer

The PIU will recruit a Project Engineer/Civil Engineering Advisor to provide advice on implementation aspects of activities and in particular prepare TOR for the larger-scale works such as coastal protection works and the construction of the RGF.

10.2.3 PIU Project Officer

The PIU will recruit a Project Officer to support the project by ensuring all administrative requirements are managed effectively. Main responsibilities are to include:

- Document management, including capture and filing (physical and electronic) of stakeholder documents and records.
- Database management, including:
- Continuously update stakeholder information (contact details, organizational details, designation, engagement activities); and
- Continuously update grievance information (grievance records, grievance database, agreements, meeting registers).
- Logistics management;
- Support with arranging accommodation and traveling where required; and
- Assist with printing of materials to be used during stakeholder meetings (posters, pamphlets, project summary documents, letters, attendance registers, maps, newsletters etc.).

10.2.4 CIU Safeguards Team

The CIU provides support for all WB portfolio projects in RMI including, but not limited to, procurement, financial management and environmental and social risk management.

The CIU Safeguards Team currently undertakes a range of stakeholder engagement activities as part of its portfolio of WB funded projects and has existing relationships with a many of stakeholders which will be important to utilize for the Project. The CIU will be supported by E&S consultants throughout project implementation as needed.

In relation to implementation of the RF, the PIU will require support from the CIU Safeguards Team in particular for capacity building and E&S technical support throughout the project and to ensure the RF is implemented appropriately and is consistent with the requirements of ESS5.

In overseeing implementation of the ESMF, the CIU Safeguards Team will be responsible for:

- Preparing operational procedures for E&S in the Project Operations Manual and any updates;
- Contributing E&S work plans and budgets to the PIU for integration into the Project Annual Work Plans and Budgets;
- Ensuring the E&S risk screening is undertaken for each Component 2 and Component 3 works (with local support from PIU) and that appropriate mitigations are provided;
- Applying the ESMF and other instruments to all Components, including review of Technical Advisory TOR, preparing E&S-related TOR, and draft and final outputs from TA;
- Ensuring commitments and action as provided under the ESCP are carried out in the timeframes and to the required standard
- Ensuring coordination with the PIU in order to complete required E&S activities
- Preparing, or overseeing the preparation of, works specific ESIA/ESMPs for the works (if required), for the works, including the preparation of E&S aspects of TOR, selection of consultants, and review of draft and final outputs;
- Preparing or overseeing preparation of other instruments as required per the ESCP including LMP
- Supporting external consultants to prepare any works specific ESIA/ESMPs and any other relevant safeguards documents, and review and provide recommendation to PIU Project Manager for approval prior to the completion of detailed designs;
- Ensuring environmental and social clauses and relevant E&S instruments are included in Contractor bid documents, including environmental and social protection and mitigation measures are included;
- Reviewing content of Contractors CESMP;
- Supervising physical works, carrying out audits etc., to ensure environmental and social protection and mitigation measures are implemented by Contractors (to assist PIU in its supervision role);
- Overseeing the implementation of specific mitigation measures outlined in the ESMPs and CESMP;
- Ensuring that relevant land due diligence reports, land access procedures are completed and any other measures to address risks or impacts to land
- Ensure that stakeholder consultations are undertaken throughout the lifecycle of the project in line with the SEP
- Managing grievances and EHS incidents as required, providing technical support to resolving issues and incidents;
- Storing data (including grievance records), collating and interpreting stakeholder feedback and providing details to the PIU, MWIU, design team and others as necessary;
- Providing E&S reporting on a quarterly basis as part of WB reporting;
- Assisting to obtain all relevant permits from RMIEPA; and
- Providing technical and capacity building support to the PIU and other project implementing agencies on the implementation of instruments, as the PIU does not contain E&S expertise.

The CIU Safeguards Team will maintain routine and regular contact with the PIU via the Project Manager on an ad hoc basis. In any event, the PIU will arrange weekly meetings with the CIU Safeguards Team; and the CIU Safeguards Team will participate in any regular (for example monthly) PIU coordination meetings with WB and any regular procurement update meetings; all with the objective of ensuring that the CIU Safeguards Team maintains awareness of upcoming Project initiatives which might warrant screening pe the ESMF.

Given the wide range of CIU E&S risk management activities associated with the Project in the context of other responsibilities for the growing WB portfolio in RMI, the CIU Safeguards Team will need additional social and environmental risk management support.

An additional CIU Safeguards Officer will be needed to complement existing CIU Safeguards Team capability. This new Safeguards Officer will be embedded in the PIU. The new Safeguards Officer will be available to work on other WB portfolio projects, subject to Project workload.

10.2.5 Design and Supervision Consultants

Technical Advisory for all three Components will involve engagement of Design and Supervision consultants. In addition specialist consultants may also be required by the CIU on an *ad hoc* basis to prepare environmental and social assessments, E&S instruments and/or to conduct specialist supervision or monitoring services.

Design and Supervision consultant E&S-related functions will include:

- Planning, ESA, ESIA, land access due diligence and documentation, contract management and supervision of activities with associated E&S risk management requirements.
- Ensuring implementation of the relevant sections of the ESMP during feasibility, design, project prioritization, land owner negotiations and other activities (reporting to the PIU, with support from the CIU Safeguards Team).
- Ensuring the Contractor Implements the ESMP and CESMP (PIU will maintain oversight of these activities with support training, oversight and auditing by CIU Safeguards Team).

The consultants will be familiar with this ESMF and will accommodate relevant E&S risk management findings in their TA works.

10.2.6 Civil Works Contractors

Contractors engaged to undertake works construction will be responsible for implementing any environmental and social protection and mitigation measures as outlined in their TOR and accompanying instruments (e.g. CESMP). Specifically the Contractor is required to:

- Support the PIU/CIU in engaging with stakeholders relating to communicating the scope and timing of works (e.g. by attendance at meetings, installation of notice boards, door knocks/letter drops, etc.);
- Support the PIU/CIU in negotiations with landowners/users in relation to temporary use of land required for construction relation activities (e.g. laydown and storage/stockpile areas) and assessment of temporarily used land after reinstatement/restoration to a condition acceptable to the landowner;
- Receive complaints and grievances by stakeholders and forwarding to the PIU during works construction, and resolution of grievances if they are related to the Contractor (in coordination with the PIU);
- Implement specific mitigation measures outlined in the CESMP; and
- Prepare and implement additional E&S management protocols relevant for the scope of the works, under the CESMP.

10.3 RMIEPA Capacity Building

Section 3.5 of this ESMF identifies gaps between the GoRMI and WB E&S risk management frameworks. A particular gap identified is that the RMIEPA's Environmental

Impact Assessment procedures don't include reference to assessment and mitigation of social risks.

Consultation with RMIEPA identified this gap as a matter which the Authority would seek to remedy, particularly given the authorization role of the RMIEPA in upcoming resilient works both under this project and arising from initiatives such as the NAP.

Mitigation measures have been included in this ESMF (refer Table 10) to build resilience by providing for the RMIEPA approval process to incorporate social impact mitigation in a more a more robust approval process and in consequential construction environmental and social management protocols. These measures would help mitigate potential social impacts and would assist RMIEPA achieve an important objective set out in the National Environmental Protection Act, all consistent with attaining the specified objective of Component 1 of the Project.

A TA consultant will be engaged to identify options to strengthen social impact risk management protocols in the RMEPA approval process, and work closely with the RMIEPA and other RMI government agencies to help develop effective implementation mechanisms.

10.4 Implementation Process

All activities for implementing the ESMF, including any works specific ESIA/ESMP will be completed prior to the commencement of any construction activities for the works.

Table 14 sets out implementation arrangements.

Activities	Agency Responsible
Disclosure and public consultation for Project preparation.	PIU, with support from CIU Safeguards Team
Coordinate and/or undertake Stakeholder engagement and consultation throughout the Project.	PIU, with support from CIU Safeguards Team
Implement and monitor all stakeholder engagement strategies/plans and activities required for the project.	PIU, with support from CIU Safeguards Team
E&S risk screening for works, including initial screening after concept determination, and detailed screening during preliminary design.	CIU Safeguards Team (or E&S consultant)
Technical advisory into design process based on E&S screening.	PIU, with support from CIU Safeguards Team
Preparation of works specific ESIA/ESMP.	Design and supervision consultants; PIU engagement of consultants with oversight from CIU Safeguard Team); Submit to World Bank for clearance
Obtain all relevant permits from RMIEPA or other agencies.	PIU, with support from CIU Safeguards Team
ESCP, ESMF, SEP, RF, LMP and CEMP monitoring and reporting including monthly and quarterly reports, including internal audits.	PIU, with support from CIU Safeguards Team
Preparation of tender bid documents and TORs, including requirement for Contractor ESMP.	PIU, with support from CIU Safeguards Team
Tendering and award of civil works.	PIU, with support from CIU Safeguards Team
Confirm 'No Objection' for the award of civil works.	WB
Preparation of Contractor CESMP	Contractor (to be reviewed and approved by PIU and CIU Safeguards Team)
Clearance of Contractor CESMP prior to works starting.	PIU, with support from CIU Safeguards Team, to submit to World Bank for clearance
Supervision, including monitoring / auditing of Contractors implementation of the CESMP.	Design and supervision consultants with overview from PIU (with support from CIU Safeguards Team)

Activities	Agency Responsible
Establishment of project level grievance mechanism, including receiving, screening, resolving and/or forwarding grievances, as appropriate.	PIU, with support from CIU Safeguards Team, Contractor, Council of Chiefs
E&S advice throughout project, including *ad hoc* capacity building of PIU, Contractor etc., as required.	CIU Safeguards Team

Table 14: ESMF Implementation Responsibilities

11. BUDGET AND FINANCIAL ARRANGEMENTS

PIU and CIU shall ensure that the total cost of ESMF implementation (including time inputs, material and reimbursements) are budgeted for within the Project Budget, and shall cover the following:

i) Engagement of external E&S consultants to support the CIU with E&S Screening and/or preparation of works specific ESIAs/ESMPs;
ii) Technical analysis or assessment required as part of works specific ESIA;
iii) Implementation of any environment or social mitigation measures recommended in the ESMPs, including any environmental monitoring requirements;
iv) Supervising the Contractor's CESMP implementation and follow up of incidents, non-compliances and other matters;
v) Consultation and stakeholder engagement; and
vi) Internal monitoring and implementation of the ESMF and other instruments (ESCP, LMP etc.).

While the broad types of activities and investments to be carried out under the Project are known (refer Section 2.3), the extent of the works that can be completed will depend on the results of Component 1.

Budget allocation for environmental and social risk management is to be assessed separately for each works based on the scope of works under Component 2, and refined in the works ESMP.

An indicative budget of US$1,265,300 has been estimated for the GoRMI to implement the E&S risk management requirements of the ESMF over five years as outlined in Table 15.

Item	Description	Amount (US$)
Preparation of ESIA and ESMPs	Preparation of works specific ESAs, ESIAs and ESMPs under Components 2 and 3 – these will be part of total contract budgets for design and supervision consultants.	$300,000
Ad hoc consultancy E&S support for CIU Safeguards Team.	Consultancy to prepare E&S instruments and/or to conduct specialist supervision or monitoring services	$120,000
Monitoring of works activities	Includes works monitoring across all activities on Majuro ; provides or one hand-held noise monitor	$5,000
Obtaining permits from RMIEPA and other regulatory authorities	Includes RMIEPA permit fees for works etc.	$25,000
TA for RMIEPA Capacity Building	Consultant to strengthen RMIEPA social impact risk management protocols and develop effective implementation mechanisms.	$80,000

Item	Description	Amount (US$)
Miscellaneous stakeholder consultation meetings and workshops, including travel.	Includes venue, refreshments, printing etc. for numerous meetings across Majuro through the Project. Includes travel for key PIU and CIU staff (including car hire, fuel etc.).	$20,000
Land acquisition and asset relocation costs.	**Indicative lump sum amount** to cover likely and acquisition and asset relocation costs. This is likely upper limit of costs given intention to avoid non-government land. The exact amount required will be determined once scope of works, area of land required, and process for securing are known.[67]. Covered under RP if required.	$50,000
Development of standard compensation rates for Project	Engaging a local land valuation consultant, to update or develop (where they do not exist) standard compensation rates.	$10,000
Resolution of grievances through GM	Indicative lump sum amount to cover the resolution of any grievances raised during the Project.	$20,000
Additional Safeguards Officer embedded in PIU	Additional CIU Safeguards Officer dedicated the Project during early stages of Project implementation (allow 3 years inputs) to cover early stage inputs. (Funding via CIU funding source – other WB project).	$95,000
TA support to integrate E&S elements into RMI Building Code	Consultancy services to assist MWIU with development of RMI Building Code to include particular focus on integrating E&S risk awareness and mitigation protocols.	$50,000
Implementation of RMI Building code	Support for MWIU implementation of RMI Building Code: • Completion of online version of Building Code ($112,926) • Municity Software Program ($246,384) (subject to negotiation and final scope) • Full Concept Report- including travel to RMI for final full concept report (optional)- ($153.990)	$513,300
	PROVISIONAL SUM	**$1,265,300**

Table 15: Indicative budget for implementing the ESMF

Any environmental and social mitigation measures required for works construction (such as sediment controls measures, replanting of riparian vegetation, costs for disposal of waste material) is to be included in the Contractors budget.

[67] Assumed surveying of land required for IOL included under design and supervision consultant budget.

12. MONITORING AND EVALUATION

12.1 Internal Monitoring and Reporting

Monitoring and evaluation is essential to ensure successful implementation of the ESMF.

The PIU, with support from the CIU Safeguards Team, will be responsible for establishing a monitoring program that will monitor, measure and assess the implementation and overall success of the ESMF and recommended mitigation measures, including identifying issues and facilitating timely responses.

The PIU will ensure that all bid documents include:

(i) Reference to this ESMF;

(ii) Standard E&S Contract Clauses appropriate to the contract;

(iii) Roles and responsibilities are clearly explained; and

(iv) Suitable budgets are allocated.

In addition, For Construction Contractors, the PIU will ensure that bid documents include requirements for a works specific CESMP to be prepared in accordance with Section 8.4.2 of this ESMF.

Internal monitoring is to be reported quarterly by PIU (with support from CIU Safeguards Team) for the overarching Project, and monthly for the separate Component 2 works.

12.1.1 TA Monitoring and Reporting

During the design phases for works, the following key progress indicators are to be measured internally by the PIU on a monthly basis:

(i) Compliance with ESMF requirements for TAs;

(ii) The status of implementation of any recommended environmental and social mitigation measures; and

(iii) The findings of any review of TA outputs against ESMF recommendations.

A brief monthly internal monitoring report will be prepared by the PIU with the assistance of the CIU Safeguards Team.

12.1.2 Construction Monitoring and Reporting

12.1.2.1 Monthly Monitoring

During the site preparation and construction phases for works, the following key progress indicators are to be measured internally by the PIU on a monthly basis:

(i) Compliance with ESMP and CESMPs (and other Contractor Plans required);

(ii) The status of implementation of any recommended environmental and social mitigation measures; and

(iii) The findings of monitoring programs.

Monitoring of environmental effects will be undertaken daily by the Contractor during construction, in accordance with Environment Monitoring procedures to be prepared by the Contractor and approved by the PIU and CIU Safeguards Team prior to commencement of construction works.

Monitoring by the PIU will be based on frequent visual observations of works construction activities, preparation of necessary plans and reports, engagement and consultation with stakeholders (as directed by the SEP), and reviewing and reporting on any project-related complaints and/or grievances.

Visual monitoring of a works site for adherence to environmental controls should include:

- Correct storage of diesel and other potential contaminants;
- Site tidiness;

- Waste disposal; and
- The effectiveness of sediment controls (where appropriate).

Noise monitoring may be required as part of the weekly monitoring for works sites in close proximity to sensitive receptors. If excessive noise from machinery is suspected, noise monitoring is to be undertaken using a handheld noise meter at i) the works site, and ii) any sensitive receptors identified in close proximity to the works site (such as residential houses, schools, businesses, churches etc.), during the operation of machinery and construction activities.

Prior to the commencement of works the PIU is to undertake baseline noise monitoring of the works site, with the results to be used as a baseline to which construction monitoring is to be compared.

The CIU Safeguard Team, and RMIEPA may also visit the site at any time to ensure adherence to the ESMP.

A brief monthly internal monitoring report will be prepared by the PIU, including the results of any other environmental monitoring specified in the works specific ESMPs and CESMP. The monitoring requirements set out in the RF should also be detailed in this monitoring report.

The results and findings from the monthly reports should be consolidated and summarized annually until project construction works are complete.

12.1.2.2 Incident Reporting

Should an environmental incident, such as a spill of hazardous substances, occur during the course of site works, the Contractor Site Manager is to immediately notify the PIU Project Manager, who is then to forward notification of the incident to the CIU and RMIEPA. The Site Manager is to take prompt and immediate action to minimize any impact and where necessary, liaise with all relevant authorities. The Site Manager is to, in liaison with the PIU and CIU, direct an appropriate course of action and shall record the date, time and nature of the incident, full details of the causes and effects, further investigations to be undertaken, person responsible for such investigations, outcomes of the investigation, actions and resolution of the incident (including preventative measures implemented to prevent recurrence). Preventative measures are to be subject to monitoring and review. Incidents will be included in any audit reports during site works.

12.1.2.3 Works Completion Report

At the completion of works activities a completion audit is to be undertaken to establish whether the commitments set out in the ESMF and CESMP have been fully complied with during implementation. This report should detail any issues and resolution encountered during works implementation and any residual issues or management measures required. The report should also include photographs of site reinstatement

The completion report will be carried out by the PIU, with support from the CIU Safeguards Team, and summarize whether the objectives set out in the ESMP and CESMP have been achieved. The monitoring requirements set out in the RF should also be detailed in this works completion report.

12.1.2.4 Schedule of Construction Reporting

Reporting requirements during works construction are outlined in Table 16 below.

Report Type	Frequency of Submission	Responsibility	Submit to:
CESMP	Prior to commencement of works	Contractor	PIU Project Manager and CIU Safeguards Team
CESMP updates	As required	Contractor	PIU Project Manager and CIU Safeguards Team

Other Contractor Management Plans (refer Section 6.3.2)	Prior to commencement of works	Contractor	PIU Project Manager and CIU Safeguards Team
Updates to any Contractor Management Plans	As required	Contractor	PIU Project Manager and CIU Safeguards Team
Monthly Construction Report	First week of month (for month prior)	PIU	PIU Project Manager and CIU Safeguards Team
Incident reporting	Within 24 hrs of incident	Contractor (Site Manager)	PIU Project Manager and CIU Safeguards Team, then to EPA/KIRMA
Complaints and Grievances Reporting	Within 24 hrs of grievance	Contractor (Site Manager)	PIU Project Manager and CIU Safeguards Team
Works Completion Report	After completion of works and reinstatement of site	PIU	PIU Project Manager and CIU Safeguards Team

Table 16: Schedule of construction reporting

12.1.3 Six-monthly Project Monitoring and Reporting

Six monthly monitoring reports are to be prepared by the PIU including the following information:

(i) Status of each activity and the related environmental and social risks, including a summary of the findings from monthly reports on physical works;
(ii) Achievement of targeted indicators, including objectives attained and not attained during the period;
(iii) Issues or problems encountered, complaints/grievances received and progress with resolving the grievances;
(iv) EHS incidents, and progress with resolution and close out;
(v) Schedule for the next period.

12.2 Submission and Distribution of Monitoring Reports

The six monthly Monitoring Reports and Works Completion Report are to be circulated to project Stakeholders including MWIU, CIU and the WB for review and feedback, so they are made aware of:

(i) The ESMF implementation progress; and
(ii) Any issues that may arise so as to take timely and appropriate action.

WB will provide implementation support for the Project on an on-going basis and visit RMI to monitor and evaluate progress. In country mission support or virtual support will be provided every six months to be timed after submission of a six monthly monitoring report.

The Project will undergo a mid-term review by the WB no later than three years after the effective date of the Finance Agreement.

Appendix A Code of Conduct.

All Contractors, Consultants and Workers are required to sign this Code of Conduct as a condition of employment. This Code of Conduct is also enclosed with Appendix B of this ESMF which addresses Contractor E&S management.

The [**INSERT NAME OF PROJECT**] (the Project) has a duty to implement measures to address environmental and social risks related to the Works including the risks of sexual exploitation and abuse (SEA) and sexual harassment (SH).

This Code of Conduct is part of measures required under the Project to deal with potential environmental and social risks related to construction works and other activities undertaken under the Project. It applies to all [**INSERT NAME OF IMPLEMENTING AGENCY**] and Project Implementation Unit (PIU) staff and individual consultants engaged on the Project; consultant firms providing technical advisory services; and contractors engaged on civil works for the Project. It also applies to the personnel of each subcontractor and any other personnel assisting the contractor in the execution of the Works. All such persons are referred to as "Contractor/Employer's Personnel" and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that the Project requires from all Contractor/Employer's Personnel.

The workplace is an environment where unsafe, offensive, abusive, or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

I, _____, acknowledge that adhering to environmental, social, health and safety (ESHS) standards and the Project's occupational health and safety (OHS), and sexual exploitation and abuse (SEA) and sexual harassment (SH) requirements are important.

I agree that while working on the Project I will:

a. Comply with this Code of Conduct and all laws of the Republic of Marshall Islands, regulations, and other requirements, including protecting the health, safety and well-being of other Contractor/Employer's Personnel and any other persons.
b. Consent to a background check in any place I have worked for more than six months.
c. Attend training courses related to ESHS, OHS, and SEA and SH as requested by my employer.
d. Carry out my duties competently and diligently.
e. Avoid and declare any conflicts of interest (such as benefits, contracts, or employment, or any preferential treatment or favors are not provided to any person with whom there is a financial, family, or personal connection).
f. Ensure the proper use of all worksites including not engaging in theft, carelessness, or waste.
g. Use specified sanitary facilities provided by the employer and not open areas.
h. Maintain a safe working environment including by:

- Ensuring that workplaces, machinery, equipment, and processes are safe.
- Wearing personal protective equipment when required at Project Site.
- Using appropriate protective measures relating to chemical, physical, and biological substances and agents.
- Following applicable emergency operating procedures.
- Reporting work situations that are not safe or healthy.

- Removing myself from a work situation which is an imminent and serious danger to my life or health.

i. Not consume alcohol or use of narcotics, drugs or other substances which can impair faculties during work activities, including attending work under the influence of these substances.
j. Not discriminate against any person based on family status, ethnicity, race, gender, sexual orientation and identity, age, language, religion, marital status, political or other opinion, national origin, disability, health, or other status.
k. Treat all members of the community(ies) and any affected person(s) with respect, including to respecting their religion, culture, beliefs, and traditions.
l. Not use language or behavior toward any person that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
m. Comply with all laws of the Republic of the Marshall Islands, including but not limited to, not perpetrating any form of physical or sexual violence.

Not exploit or sexually exploit or abuse (SEA) any person.[68]

n. Not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature toward Contractor/Employer's Personnel other Contractors, visitors to Project Sites or any other persons at or around the Project Sites.
o. Not engage in sexual favors with any Contractor/Employer's Personnel or members of the community.
p. Not use prostitution in any form at any time.
q. Not engage in Rape.[69]
r. Not engage in Sexual Assault.[70]
s. Not engage in human trafficking of any person or exploit a trafficked person.
t. Not participate in sexual contact or activity with children under the age of 18, except in the case of a pre-existing marriage. Mistaken belief regarding the age of a child or "consent" from the child are not a defense or excuse.
u. Unless there is the full consent[71] by all parties involved, not have sexual interactions with any person.
v. Ensure the protection and safety of children under the age of 18 by:

- Informing my manager of the presence of any children on the Project Site or who are engaged in hazardous activities as part of the Project.
- Wherever possible, ensuring that another adult is present when working close to children.
- Not inviting unaccompanied children, who are not my family, into my home.
- Not accessing child pornography.
- Refraining from physical punishment or discipline of children.
- Taking appropriate caution when photographing or filming children for work-related purposes.[72]

w. Report through the GRM or to my manager any breaches of this Code of Conduct.
x. Not retaliate against any person who reports violations of this Code of Conduct.

I understand that:

1. failures to comply with this Code of Conduct constitute acts of gross misconduct and are therefore grounds for sanctions, penalties, and/or potential termination of employment. Prosecution by the police of those who break the law of the Republic of Marshall Islands may be pursued if appropriate.

[68] **SEA** means any actual or attempted abuse of position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially, or politically from the sexual exploitation of another. In Bank financed projects/operations, sexual exploitation occurs when access to or benefit from Bank financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain

[69] **Rape** means physically forced or otherwise coerced penetration—even if slight—of the vagina, anus or mouth with a penis or other body part. It also includes penetration of the vagina or anus with an object. Rape includes marital rape and anal rape/sodomy. The attempt to do so is known as attempted rape. Rape of a person by two or more perpetrators is known as gang rape.

[70] **Sexual assault** means any form of non-consensual sexual contact that does not result in or include penetration. Examples include attempted rape, as well as unwanted kissing, fondling, or touching of genitalia and buttocks.

[71] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance, or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. Consent cannot be given by a child under the age of 18, even where legislation in the RMI has a lower age.

[72] Including: complying with local traditions or restrictions for reproducing personal images, obtaining informed consent from the child and a parent or guardian of the child, and presenting children in a dignified and respectful manner.

2. if I breach this Code of Conduct, my employer will take disciplinary action which could include:

- Informal or formal warning.
- Additional training.
- Loss of up to a salary for a period of time.
- Suspension of employment (without payment of salary), for a period of time.
- Termination of employment.
- Report to the police or other relevant authorities.

I do hereby acknowledge that I have received and read this Code of Conduct in a language that I comprehend, I agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, and SEA and SH.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

I understand that any action inconsistent with this Code of Conduct or failure to act mandated by this Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Name: _____

Position: _____ Date: _____

Appendix B Contractor Management Plans - Outlines

Appendix B

Contractor Environmental and Social Risk Management

Each construction contractor will be required to prepare a Contractor Environmental and Social Management Plan (CESMP), prior to the commencement of construction to give attention to the range of E&S management areas applying to relevant construction works.

For large projects this might involve preparation of dedicated management plans; for smaller projects it will be sufficient for the CESMP to set out management procedures. The CIU Safeguards Team will provide guidance on which particular approach is required in each case, based on the nature and scale of risks identified in the scope of works.

Areas for particular E&S management attention in the CESMP include:

- Sediment Control
- Waste Minimization and Management
- Spill Management
- Traffic Management includes road safety
- Emergency Management and Response
- Community Health and Safety
- Environmental Monitoring
- Occupational Health and Safety

Contractors shall also adhere to project Labor Management Procedures (LMP)[1] as part of the CESMP, which is to include a code of conduct (See Annex A this CESMP outline) for site workers induction, GBV/SEA and SH awareness training, rules regarding alcohol use and interaction with the local community.

This Appendix sets out guidance for inclusion in the CESMP of each of the above E&S risk management matters.

When preparing and implementing CESMP, Contractors must comply with the bid documents, this ESMF, MURP Labor Management Procedures (including occupational health and safety procedures), MURP Resettlement Framework, World Bank Environmental and Social Standards, World Bank Group Environmental, Health and Safety Guidelines, RMI laws and policies, and associated guidance documents. The information set out below is provided as a guide only.

[1] To be completed prior to the engagement of project workers.

1. Sediment Control

1.1 Objectives

Management of sediment at the Project site is based on the following objectives:

- Minimize loss of sediment from areas disturbed by Project activities;
- Reduce the requirement for passive or active treatment of site runoff containing elevated sediment levels; and
- Minimize impacts on downstream water uses and environmental values due to increased stream sediment loads.

1.2 Strategy

The Contractor shall ensure that sediment controls are implemented effectively. The strategy for managing erosion and sedimentation is to incorporate the following components:

- Minimization of disturbed land areas and rehabilitation
- Avoiding impacts on biodiversity/reef protection measures
- Stabilization of disturbed areas
- Drainage control
- Managing stockpiles and
- Maintenance, monitoring and reporting.

Specific measures to include:

(i) Effective stormwater management engineered to divert clean water away from construction areas and stockpiles and divert contaminated runoff to sediment treatment and control devices (e.g. sediment traps) prior to discharge (if required);

(ii) Where possible, clean, or treated stormwater to be discharged to ground rather than direct to water bodies;

(iii) Adjacent properties shall not be used to receive sediment laden stormwater from the works site;

(iv) Excavations that expose soil, including vegetation stripping, shall be minimized during periods of wet weather (i.e. wet season);

(v) Stockpiles are to be located and appropriately contained (i.e. bunded) to prevent discharge of sediment;

(vi) In areas of soil disturbance, the Contractor shall upon completion of the works ensure the uncontrolled discharge of sediment-laden stormwater is minimized – if necessary compact, reseed, revegetate and/or stabilize (with coconut matting, geotextile or similar) the area;

(vii) Stormwater flows must not be allowed to run onto or over exposed slopes or saturate ground as to erode the near surface soils;

(viii) Silt curtains shall be installed during works for coastal structures where sediment may be released from project areas; and

(ix) Support PIU (under supervision of CIU safeguards Team) weekly visual assessments of watercourses in the vicinity of the works during construction, for any observable changes in suspended solids or oil/grease downstream of works).

1.3 Monitoring

The inspection of sediment control measures and monitoring of discharge points are required on a regular basis and either side of rainfall events to ensure they continue to work and that performance standards are not breached. Frequency of inspections and monitoring are outlined in Table 1-1 below.

Table 1-1: Erosion and Sediment Control check sheet.

Work Phase	Frequency	Monitoring Actions
Surface is exposed and site is changing frequently.	• Daily • Before expected rainfall event • After rainfall event greater than 20 mm/24 hr	• Inspect all control/mitigation structures (sediment curtain and sump protection are secured in place). • Check discharge points meet performance standards. • Once a week – fill in inspection sheet.
Surface is exposed but not changing.	• Daily • Before expected rainfall event • After rainfall event greater than 20 mm/24 hr •	• Inspect all structures and fill in inspection sheet. (culverts clear of debris, structural integrity of control measures is sound, all- weather access to measures is maintained). • Check discharge points meet performance standards.
After stabilisation if vegetation has been used.	• Weekly • After rainfall event greater than 20 mm • After vegetation has been established, 3 monthly	• Inspect whether surface remains stabilized (80% coverage is maintained if vegetated).

A check sheet covering what to look for during inspections, maintenance actions and monitoring of discharge points are provided in Section 7.2.2 below. This should be adapted to each site.

Once a week the inspection sheet must be completed and provided to the CIU safeguards representative. Once a month the Contractor will accompany the CIU safeguards representative during the site inspection. The purpose of the inspection is to demonstrate compliance with the CEMP and identify areas where improvements can be made or repairs and maintenance are needed. It is also to follow up on previous actions/ improvements.

A regular meeting will be held on site by the Contractor to discuss the results of the weekly inspection and monthly audit.

Where inspections identify areas of non-compliance or improvement the contractor will be advised either verbally or in writing by either the CIU safeguards representative or if applicable, via a Notice to Contractor prepared by the Project Engineer.

1.4 Priority Actions

Priority actions responsibilities and timing are outlined in Table 1-2-1.

Table 1-2: Priority Actions, responsibilities and timing

Target	Responsible	Timing
Ensure drains and sediment control structures are operational prior to the wet season, and prior to any significant rain events during other times of the year.	Contractor	During construction prior to the wet season
Develop routine maintenance and repair program for sediment control structures and implement throughout construction phase.	Contractor	Prior to land clearance and throughout construction
Develop Standard Operating Procedures (SOPs) for sediment control and implement throughout construction phase to avoid impacts on biodiversity/reef protection measures..	Contractor	Prior to land clearance
Provide monthly reports to PIU on status of sediment control measures	Contractor	Monthly

2. Waste Minimization and Management

2.1 Objectives

The objectives for management of solid and liquid waste material at the Project site are to:

- Reduce potential health and environmental risks associated with any waste generation and disposal;
- Maximize recycling of solid and liquid waste materials generated on site.

2.2 Strategy

2.2.1 Introduction

Waste management procedures will be based on the following hierarchy (in decreasing order of preference):

i. Minimize the production of waste.
ii. Maximize waste recycling and reuse.
iii. Treatment of waste.
iv. Ensure safe waste disposal.

The Contractor will be responsible for developing and implementing Waste Management and Minimization Procedures.

A waste inventory will be developed by the Contractor that includes the sources and quantities of all major waste types (including non-hazardous / hazardous solid and liquid wastes) and the relative proportions of each waste type that are recycled, reused, disposed of or temporarily stored on site.

The management of waste based on the hierarchy of waste management outlined above are required to be undertaken to ensure objectives are achieved.

2.2.2 Waste Reduction

The first priority for the management of Project wastes will be to reduce the volume of waste generated. This will be achieved by:

- Procuring supplies that produce less waste by virtue of the way they are produced, packaged or consumed;
- Procuring supplies that have been produced from recycled materials, if possible; and
- Maximizing the efficiency of all on site production processes.

In addition, non-hazardous materials will be used in preference to hazardous materials wherever possible.

2.2.3 Recycling and Reuse

Waste will be segregated into different types at the location where they are generated to:

- Maximize the recovery of recyclables;
- Minimize the contamination of recyclable materials; and
- Minimize the requirement for sorting mixed waste streams.

Solid waste will be segregated into four categories as follows:

- Biodegradable materials – vegetation and food scraps;

- Recyclable materials such as plastic; glass; metal; paper and cardboard, where available;
- Non-hazardous residual waste/cleanfill/concrete etc.; and
- Hazardous waste.

2.2.4 Segregation, Collection and Handling of Recyclable Materials

Clearly labelled, color-coded bins will be placed at designated locations (i.e. at points of waste generation) for temporary storage of segregated material, including recyclable materials. Separate containment bins, or areas, shall be provided for glass, recyclable plastics, metals, paper, processed timber, demolition waste and cleanfill waste.

To maintain sanitary conditions, materials to be temporarily stored for reuse or recycling will be covered, emptied and cleaned of residue waste.

Bin placement and collection schedule will be reviewed during for the duration of works and, if necessary, altered to reflect emerging waste generation patterns.

2.2.5 Waste Disposal

Any non-hazardous residue waste that cannot be reused or recycled will be deposited in clearly marked, general litter bins. Waste will need to be disposed of offshore, given limitations applicable to the Majuro landfill. The requirement to cater for hazardous waste is not anticipated.

The Contractor will implement an education campaign for staff to minimize the generation of litter and actively encourage the clean-up of litter within the Project Area and nearby receiving environment.

2.2.6 Hazardous Waste

Any disposal of hazardous waste will be undertaken in a manner that ensures that any long-term risk to employees, contractors, the local community and environment, is minimized.

The following hazardous materials management procedures and systems should be followed:

- A Waste Inventory should be implemented by the contractor. The inventory includes the sources and quantities of all major waste types (including non- hazardous / hazardous solid and liquid wastes) and the relative proportions of each waste type that will be recycled, reused, disposed, or temporarily stored on site.
- All hazardous materials requiring offsite disposal or special handing should be dealt with on a case-by-case basis and detailed in the waste inventory.
- Any hazardous wastes from the project shall be disposed of to an authorized overseas facility.
- Provision of protective equipment (i.e. gloves, plastic coveralls, safety glasses and self-contained respirators).
- Clearly labelled and displayed ‘Material Safety Data Sheets’ for all hazardous materials.
- Comprehensive training regarding emergency response and the handling, storage and use of hazardous materials.
- Development of emergency response procedures

Note: The classification, packaging, labelling and safe transport of hazardous goods will be the responsibility of manufacturers, suppliers and transport contractors.

2.2.7 Wastewater Management and Treatment

Transportable toilet facilities will be provided for use by Workers removing the need for treating and discharging waste from Project sites.

2.3 Priority Actions

Priority actions responsibilities and timing are outlined in Table 2-1.

Table 2-1: Priority Actions, responsibilities and timing

Target	Responsible	Timing
General Waste Management		
Identify options for disposing of recyclable waste of a commercial value.	Contractor	Prior to commissioning
Install colour-coded bins and appropriate signage at designated locations around the Project Area for segregation of waste.	Contractor	Prior to construction
Conduct an education campaign amongst the Project workforce to assist in the proper disposal of waste.	Contractor	Prior to Construction
Develop Standard Operating Procedures (SOPs) for waste management.	Contractor	During construction
Transport and dispose of waste in accordance with the WMMP..	Contractor	During construction
Hazardous Waste		
Develop an inventory of hazardous materials	Contractor	Prior to Construction
Develop contracts for hazardous material suppliers.	Contractor	Prior to Construction
Verify that potential hazardous material suppliers meet requirements.	Contractor	Prior to Construction
Develop Standard Operating Procedures (SOPs) for management, including appropriate storage, of all hazardous materials used on site.	Contractor	Prior to Construction
Ensure proper hazardous material signage at all storage facilities.	Contractor	Prior to Construction
Ensure suitable protective equipment is on-site for all employees who will be handling hazardous materials.	Contractor	Prior to Construction
Provide training on hazardous materials handling.	Contractor	Prior to Construction
Monitoring and Reporting		
Weekly visual assessments of waste management procedures at each construction site	PIU with support from CIU Safeguards Team	Weekly
Provide monthly reports on status of waste management measures	Contractor	Monthly

3. Spill Management

3.1 Objectives

The objectives of Spill Management Procedures (SMP) are:

- Minimize the impact of spills on the local community and the environment (including biodiversity/reef protection measures) by managing the response to any spill; and
- To prevent or mitigate[2] spills from entering the freshwater or coastal marine environment.

3.2 Strategy

Spill management may pose environmental risk depending on the nature size and location of the spill. Spill management broadly covers a range of liquids including fuel, oil, wastewater and chemicals. Spill ratings definitions fall within the following categories:

- **Contained within initial protection area** (i.e. all spills contained by bund or drainage control);
- **Contained within Project works area** (i.e. all spills that occur away from fixed spill containment structures such as bunds but within the works area);
- **Offsite spill** (i.e. all spills that originate from activities within the Project footprint and
- **Non-compliance discharge** (i.e. all spills that originate from within the Project area and escape this area. Examples include all spills that affect the river environment or flow down creeks beyond Project areas, spillage from a truck during transport etc).

Spill Response Procedure are to be prepared for the works site (refer Table 3-1).

Table 3-1: Spill procedures

Procedure	Performance Indicator	Responsibility
Specific procedures to be developed and implemented for leaks and spills involving: • Oils and Hydrocarbons; • Other materials such as cement.	Clear response define for categories of spill	Contractor Management
All Contractor staff involved in the handling of fuel must be trained in spill and emergency procedures. Management must organize suitable training. Evidence of training should be held on site for inspection / auditing purposes. Site personnel to familiarize themselves with the procedure and necessary actions shall be included in staff training undertaken by the Contractor.	All staff trained. Clear and ready access reference to training records of all Contractor staff	Contractor Management
Spill response to be sub-divided into two response categories: • Simple spills of that can be managed immediately by the person present on site (these do not constitute an environmental emergency); and	Clear delineation of spill response categories for action and escalation as necessary	Contractor Management

[2] Mitigation for activities with a higher than low risk rating

• More complicated spills that may require additional resources or specialist skills for containment and rehabilitation.		
Spill kits available and designed for fuel spills. Spill kits stored adjacent to fuel storage areas and high risk spill areas. Staff trained in use of spill kits.	Spill kits available and located where necessary.	Contractor Management
Immediately contain any spill to prevent contamination of soils and waterways. Immediately inform Management and PIU of any spill.	Incident reporting has occurred. Spill has been contained as far as practicable to minimise environmental risk.	Contractor Site Manager
Remove contaminated material and dispose off-site in accordance with advice from CIU E&S Safeguards Team or RMIEPA..	No contaminated material remains on site.	Contractor Management

Spill kits should consist of at least the following items:

- Oil absorbent pads;
- Loose absorbent material such as sand;
- Sand, sandbags to create a temporary bund;
- Oil spill boom and additional oil removal equipment.
- Appropriate personal protective equipment;
- A laminated copy of the Accidental Spill Response Procedure.
- Shovels and other general site equipment may also be used in case of an emergency.

3.3 Priority Actions

Priority actions, responsibilities and timing are outlined in Table 3-2.

Table 3-2: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Develop SMP	Contractor	Prior to construction
Ensure all staff and contractors are aware of procedures outlined in SMP.	Contractor	Prior to construction
Immediately inform PIU of any spill.	Contractor	During construction

4. Traffic Management

4.1 Objectives

The objectives of the Traffic Management Procedures (TMP) are:

- Minimize the impact of Project traffic and construction on the health and safety of workers and the local community, and the environment; and
- Minimize adverse impacts of increased or decreased accessibility associated with project development on local communities and the environment.

4.2 Strategy

4.2.1 Traffic Management and Road Accidents

Prior to mobilizing to site, the contractor will prepare a *Traffic Management Plan* in consultation with PIU/MWIU/CIU Safeguard Team to ensure community safety and environmental risks associated with Project works, project traffic, transportation and pedestrians are minimized.

General management and mitigation measures to minimize community safety risks associated with road works should be implemented. While there will always be a risk of accidents; strong management will ensure that such risks are minimized.

Key measures to be undertaken to ensure that traffic issues are well managed and risks are minimized include:

- Consultation with PIU/MWIU/CIU Safeguard Team in preparing TMP:
- Deploy general road safety measures where appropriate such as having trained workers directing traffic, managed traffic diversions, deployment of physical barriers and cones as necessary, lighting at intersections and signage such as advisory speed signs;
- Incorporation of speed reduction zones near project areas;
- Impose speed limits of no more than 20 miles per hour for vehicles travelling through the construction site;
- Management of controlled crossing points for pedestrians and vehicles;
- Construction activities to be restricted to relevant working hour requirements (0700 to 19:00) on Monday through Saturday with no construction activities taking place on Sunday or public holidays, without prior approval of PIU and with the agreement of stakeholders;
- Regular consultation with roadside residents during operational phases to advise of any upcoming restrictions/delays or advise of mitigation measures and any necessary improvements;
- Implementation of strict speed limits by project vehicles;
- Project vehicles to be equipped with warning lights to ensure high visibility to other road users;
- Strong enforcement of Project requirements regarding drug and alcohol use and levels of fatigue while driving Project vehicles; and
- Implementation of grievance mechanism during the Project to ensure that issues or concerns of local communities can be identified and addressed.

4.2.2 Health and Livelihood Impacts on Communities

Key measures to minimize health and livelihood impacts include:

- Lower speed limits to be maintained by Project vehicles in settlements and other densely populated areas; and
- Clear signage around work areas including use of cones, barriers around sites, etc.

4.2.3 Dust and Noise

Potential air quality impacts can largely be mitigated with careful management of equipment operators (contractors) and maintenance of equipment. Key measures to minimize potential air quality impacts during Construction include:

- Spraying of water on exposed surfaces to minimize dust generation where necessary. If ongoing nuisance dust issues occur for local communities, laying gravel or sealing the road in the vicinity of settlement areas should also be considered; and
- Key measures to minimize potential noise impacts associated with access roads during Construction include ensuring Project vehicles are fitted with secure dust covers and are regularly maintained to reduce roadside engine emissions.

4.3 Priority Actions

Priority actions responsibilities and timing are outlined in Table 4-1.

Table 4-1: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Develop and implement a Traffic Management Plan – prior approval by PIU with support from CIU Safeguards Team	Contractor	Pre Design
Develop and present Traffic Safety Awareness Program to local communities.	Contractor	Construction
Provide safety training for drivers.	Contractor	Construction
Develop a road accident log and report protocol.	Contractor	Construction
Immediately inform PIU of any traffic incident	Contractor	Construction

5. Emergency Management and Response

5.1 Scope

Spill management is addressed separately to this procedure.

The identified emergency matters addressed here are:

- Fire
- Flooding
- Unexplode Ordinance (UXO)
- Communicable diseases

5.2 Objectives

The objectives of emergency response management for the Project are to ensure that Environmental Emergency Response procedures are established that can be rapidly implemented in the event of an environmental, health, social, security or natural hazard emergency.

5.3 Strategy

5.3.1 Introduction

5.3.2 Assessment of Risk

Regular environmental risk assessment will be undertaken to review potential environmental emergency situations that may arise. Determination of whether an incident is classified as an Emergency is based on the environmental risk assessment.

For an incident classified as an emergency, the following procedures will be followed. Any unforeseen environmental incident overlooked during the environmental risk assessment will be treated as an emergency situation until the Contractor management and/or PIU advises otherwise.

5.3.3 Prioritization of Response

Emergency response to an environmental incident prioritizes the actions undertaken according to the following sequence:

- Protection and rescue of human life;
- Minimization of the area impacted by the incident;
- Protection of the environment, plant and property;
- Rendering the area safe in which the emergency has occurred;
- Restoration of all disrupted services; and
- Decontamination and rehabilitation of the incident scene and surrounding area.

Depending upon the severity of an environmental incident, emergency response may also involve using the services of, or notifying, the following groups:

- Police;
- Ambulance;
- RMIEPA;
- Local Government;
- Community leaders; and
- Others likely to be affected (e.g. local communities, downstream water users etc).

5.3.4 Fire

The fire risk from the works is considered minimal, however fire may originate from other sources (including both natural and human sources), but threaten the works site. Potential environmental impacts may include breakout of fire into surrounding vegetation, as well as release of significant quantities of air pollutants and contaminated runoff from burnt areas.

Management and mitigation measures to minimize the risks associated with fire will generally include:

- All fuel shall be stored in a bunded container away from machinery and other sources of ignition and fire extinguishers and/or a water pump to be kept on site;
- Development of detailed firefighting procedures, fire fighter training, emergency drills, first aid/evacuation, and systems for warning Local Government;
- Provision of induction sessions to Project employees on fire hazard to provide a basic understanding of fire awareness, measures to prevent accidental fires and the importance of reducing the risk of accidental fire for both safety and the protection of adjacent lands;
- Fire equipment adequate for the level of risk identified for the various facilities, which are regularly maintained and tested to ensure good working order;
- Adequate water supplies for use in the case of fire will be established in critical areas;
- Earthing and lightning protection will be installed to structures vulnerable to lightning strike; and
- Storage and handling of all substances under conditions which minimize the risk of fire or toxic emissions.

5.3.5 Flooding and Storm/Typhoon Damage

Flooding and storm events (including Typhoons) have the potential to impact the Project works area (e.g. worker safety, traffic accident, power interruption).

Rainfall intensities can also be relatively high in RMI. High rainfall intensities have the potential to create a flood risk, particularly in low-lying areas where transport routes and other infrastructure may be located. Even minor flooding within these low-lying areas may have significant impacts on Project infrastructure.

Based on the works area landform and local flood risks, the Contractor shall give consideration to flow diversion options during project planning and construction phases.

5.3.6 Unexploded Ordinance (UXO)

Unexploded Ordinance (UXO) are known to exist in RMI as a result of military actions throughout the Pacific during World War II from 1942-1945. While many of the UXO's have been cleared there is a chance some may still remained undiscovered.

Given the works to be implemented under MURP are largely within areas that had been constructed and maintained since that time (typically 1970s onwards), the chance of workers encountering UXO's as part of this Project is extremely low.

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The following UXO Chance Find Procedure from Appendix E of the ESMF is to be followed:

When a person working on the project discovers any item of unexploded ordinance (UXO) the following procedures should be followed.

1. Stop the activities in the area of the chance find;
2. Delineate the discovered site or area (e.g. fencing);
3. Secure the site to prevent any further disturbance, damage or loss.;
4. Prohibit the collection of objects by any person;
5. Notify the local government, National Police Force and MWIU as soon as possible;
6. Follow instructions from National Police Force relating to disposal of UXO.
7. Project works can resume only after instruction is provided from National Police Force and MWIU.

5.3.7 Cultural Heritage – Chance Finds

Screening will be undertaken prior to selection of Project work areas, but there remains the possibility of chance finds of culttual heritage items or areas with associated potential for loss or modification of cultural heritage features and artifacts, graves, particularly those located close to the foreshore areas of Majuro

Contractors shall implement Chance Find Procedures as provided in Appendix E.

The following Cultural Heritage Chance Find Procedure from Appendix E of the ESMF is to be followed:

1. When a person working on the project discovers a cultural heritage site or item, or any item of unexploded ordinance (UXO) the following procedures should be followed.
2. Stop the activities in the area of the chance find;
3. Delineate the discovered site or area (e.g. fencing);
4. Secure the site to prevent any further disturbance, damage or loss.;
5. Prohibit the collection of objects by any person;
6. In cases of human remains, arrange for a guard to watch the site until the police, local government and / or person with delegated authority takes over
7. Notify the local government and RMI Historic Preservation Office within 24 hours (and police if it is human remains);
8. Any objects that are found must be handed over to the Historic Preservation Office.
9. Project works can resume only after instruction is provided from the Historic Preservation Office.

5.3.8 Communicable Diseases, including Covid-19

The Contractor OHSP shall include the requirement to educate all site staff on the prevention and treatment of communicable diseases including filariasis, dengue, zika, hepatitis, HIV/AIDS and COVID-19 (refer Project OHS procedures in Appendix B of the LMP).

The Contractor and all workers (including imported labor) associated with the Project are to comply to RMI National and State Covid-19 health and safety management plans, and international WHO standards, and include Covid-19 provision in the OHSP (including travel restrictions for staff/workers returning home).

5.4 Priority Actions

Priority actions, responsibilities and timing are outlined in Table 5-1.

Table 5-1: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Develop and implement Emergency Management and Response Procedures (EMRP) based on this Section, including reference to Chance Find Procedures.	Contractor	Prior to construction
Ensure all staff and contractors are aware of procedures outlined in EMRP procedures, and are briefed on contents of EMRP during induction and during weekly toolbox meetings.	Contractor	Prior to construction

6. Community Health and Safety

6.1 Objectives

Management of Project Community Health and Safety will be based on the following objective:

- To prevent and / or minimize any negative health or safety impacts on the community arising from the Project.

6.2 Strategy

Management and mitigation of health impacts in accordance with GoRMI policies and regulations and include the following components outlined below.

6.2.1 Community Health and Safety

Various measures will be implemented during pre-construction, construction and operation phases to minimize Project impacts on community health and safety. These include:

- Using key standards and OHS and safety procedures;
- Implement traffic safety, noise and dust mitigation measures; and
- Access to the laydown areas / active work areas will be restricted by the presence of security.

6.2.2 Traffic Management

One objective of the Traffic Management Procedures (TMP) is minimizing the impact of use of construction vehicles and project-related pedestrian traffic on local communities and the environment.

6.2.3 Air Quality

Various measures will be implemented during the construction phase to minimize Project impacts relating to a potential deterioration in air quality. These include:

(i) Trained manager on site during working hours (0700 to 19:00 Monday to Saturday) to manage dust generating activities and mitigate risk of adverse impacts.

(ii) Construction vehicles shall be regularly serviced and maintained to industry standard to prevent the emission of visible particulates;

(iii) The number and size of stockpiles shall be minimized, and have appropriate containment to prevent dust and sediment laden stormwater discharges;

(iv) Dust suppression (i.e. a water cart, or similar) shall be used to dampen active work areas and stockpiles in dry conditions;

(v) Washing vehicle tyres and sweeping the road (as required) to prevent the spread of soil and dust outside of the works area;

(vi) No fires on site;

(vii) Reinstatement of exposed areas within one (1) month of completion of works; and

(viii) Monitoring as set out below; and

6.2.4 Noise

Various measures will be implemented during the construction phase to minimize Project impacts relating to a potential deterioration in noise quality. These include:

(i) The Contractor shall ensure noise attenuation is in accordance with the provisions of WHO/WB EHS noise level guidelines[3].

(ii) The local community will be informed of upcoming works (including maps, dates and times of operation) through meetings with the local community and the installation of signage, one month prior to commencement;

(iii) Construction activities shall be restricted to 0700 to 19:00 Monday to Saturday with no construction activities taking place on Sunday or public holidays, without prior approval of PIU and with the agreement of stakeholders;

(iv) Construction equipment and vehicles will be regularly maintained shall be provided with muffler silencers;

(v) Monitoring as set out below; and

(vi) Track, monitor and investigate complaints through the Project GM.

6.2.5 Monitoring

6.2.5.1 Dust Monitoring

A dust monitoring program is outlined in Table 6-1.

Table 6-1: Dust Monitoring program

Monitoring Action	Frequency
Check weather forecasts for strong winds and rainfall to plan appropriate activities and dust management response in advance.	Daily
Observe weather conditions, wind via observations and data outputs from weather stations, and presence of rain.	Daily, and as conditions change.
Visual inspections shall be made of all active construction areas, whenever there are construction activities.	Daily, and increase to three times daily during dry months.
Inspect land adjacent to the site (including vegetation, residential properties and cars), construction exits and adjoining roads for the presence of dust deposition.	Daily, and as conditions change.
Inspect all exposed soils and unsealed surfaces for dampness and to ensure that surface exposure is minimised.	Daily, and as conditions change.
Inspect stockpiles to ensure enclosure, covering, stabilisation or dampness. Ensure stockpile height is less than 3 m or appropriately stabilised.	Daily, and as conditions change.
Inspect dusty activities to ensure dust emissions are effectively controlled.	Daily, and as new activities commence.
Monitor dust generating activities and controls, including water application rates.	In winds over 5.5 m/s (20 km/h or 11 knots).
Ensure site windbreak fences are intact.	Daily
inspect wheel wash equipment to ensure effective operation.	Weekly
inspect watering systems (sprays and water carts) to ensure equipment is maintained and functioning to effectively dampen exposed areas.	Weekly

6.2.5.2 Noise Monitoring

Noise testing must be performed to verify the source noise levels used in the design. Sampling to be undertaken by the CIU safeguards representative in accordance with "NZS 6801:2008 acoustics – Measurement of environmental sound by appropriately trained staff" or equivalent.

[3] WHO 1999. Guidelines values are for noise levels measured out of doors. Source: Guidelines for Community Noise, World Health Organization

If monitoring shows that the noise levels used in design are wrong, go through the assessment again, and update the ESMF Screening to reflect any changes in risk. If the project moves into a high risk classification as a result of monitoring a site specific ESMP will be required.

Whenever a new piece of equipment is used or a new type of activity is started the testing has to be repeated.

If complaints are received, noise monitoring may be required and additional mitigation required. The CIU safeguards representative will discuss this with the Contractor if this is the case.

6.3 Priority Actions

Priority actions, responsibilities and timing are outlined in Table 6-2.

Table 6-2: Priority Actions, responsibilities and timing

Target	Responsible	Timing
Prepare detailed procedures for keeping community informed and safe within the CHSP.	Contractor	Prior to construction
Monitoring in accordance with monitoring procedures set out in this Appendix	Contractor	During Construction
Immediately notify PIU in the event of a community incident relating to the Project	Contractor	During Construction

7. Environmental Monitoring

7.1 Objectives

Monitoring by the Contractor under the Project has the objective of verifying that project environmental impact mitigation measures are being deployed and are working effectively to mitigate environmental risks.

7.2 Strategy

7.2.1 General

- The inspection of control measures and monitoring of environmental impacts are required on a regular basis to ensure they continue to work and that performance standards are not breached.
- Suggested frequency of inspections are outlined below, as are check sheets covering what to look for during inspections, maintenance actions and monitoring of environmental impacts.
- If inspections identify areas of non-compliance or improvement you will be advised either verbally or in writing by either the CIU safeguards representative, or if applicable, via a notice to Contractor prepared by the Project Engineer.
- The minimum inspection requirements are outlined in Table 7-1 below.

Table 7-1: Minimum Inspection Requirements.

Action	Frequency	Purpose
Inspection sheets must be completed by the Contractor and provided to the CIU safeguards representative.	At least once a week.	Keep PIU up to date with environmental management onsite.
The Contractor will support the CIU safeguards representative during site inspections.	At least once a month.	Demonstrate compliance with the CEMP and identify areas where improvements can be made or repairs and maintenance are needed. To follow up on previous actions/improvements.
Meetings on site to discuss the results of the weekly inspection and monthly audit with staff and sub-contractors.	At least once a week.	Keep staff and sub-contractors up to date with environmental management onsite and provide opportunity for them to raise issues/ areas for improvement.

7.2.2 Check sheet

The following monitoring checklist shall be used to address environmental monitoring under this Plan.

ENVIRONMENTAL MONITORING CHECKLIST [Adapt as necessary for each site]

Monitoring date:		
Monitoring undertaken by:		
Weather conditions:		
Photograph taken showing condition of monitoring location (Y / N) Attach relevant photos		
Monitoring standard	**Standard met (Y/N)**	**Comments**
All control structures secured and intact		
Any conspicuous change in the color or visual clarity of any water discharge from the site		
Any apparent impacts on biodiversity/reef protection measures		
All culverts clear of debris		
Any noise complaints in previous week?		
Any dust complaints in previous week		
Dust control measures in place and intact?		
Dust watering systems and wheel washes in place and intact?		

7.3 Priority Actions

Priority actions, responsibilities and timing are outlined in Table 7-2.

Table 7-2: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Develop Environmental Monitoring Procedures.	Contractor	Prior to construction
Ensure all staff and contractors are aware of the Environmental Monitoring Procedures, and are briefed on contents of Plan during induction and during weekly toolbox meetings.	Contractor	Prior to construction

8. Project OHS Management

8.1 Introduction

This section sets out details of OHS management relating to Project activities in terms of roles of the CIU and the various categories of project workers - Direct workers, Direct workers (Government), Contracted workers and Primary Supply workers.

8.2 Roles

8.2.1 Centralized Implementation Unit

The CIU Safeguards Team will be responsible for:

- Oversight of the health and safety and other related activities of Project workers as set out in the LMP;
- Review of draft bid documents;
- Review of contractor and primary supplier's tender responses;
- Review and clearance of contractor CESMP;
- Conducting periodic on-site visits to monitor and supervise progress.

All CIU Project activities will be undertaken in conjunction and cooperation with the PIU.

8.2.2 Direct Workers

Direct workers are MWIU / PIU staff and individual consultants engaged by MWIU PIU for the purposes of the Project.

Direct workers will be subject to Project-specific OHS requirements set out in Section 10.4.2.

8.2.3 Direct Workers (Government)

Direct workers (Government) are RMI civil servants working either full-time or part-time on Project development and implementation. This category includes Government civil servants in the PIU, DIDA, CIU or MWIU PMU working part-time or full-time on the Project).

Direct workers (Government) will be subject to OHS requirements set out in Section 10.4.3.

8.2.4 Contracted Workers

Contracted workers fall into two categories:

(i) Consultant firms providing technical advisory services. Consultants engaged by a firm, contracted to provide technical advisory services – Section 10.4.4.1.

(ii) Civil works and large equipment Contractors engaged for construction activities – Section 10.4.4.2.

8.3 Occupational Health and Safety Management Framework

8.3.1 Scope and Objective

This Occupational Health and Safety (OHS) framework applies to ALL categories of Project worker.

The objective of Project OHS management is to ensure that the health and safety of workers and the community is protected and that appropriate OHS measures will be incorporated into the design and implementation of the project to prevent and protect workers from occupational injuries and illness.

This Framework takes into account the provisions of the World Bank Group's *Environmental, Health, and Safety (EHS) Guidelines* (April 2007) together with the relevant Industry Sector EHS Guidelines available at www.ifc.org/ehsguidelines. For this project, the particular scope of OHS provisions in each case will depend on the nature and severity of the hazards, risks, and impacts; and the types of workers involved.

Clauses will be incorporated in all Contracts as set out in Appendix B of this Contractor Management Outline.

8.3.2 Components of Project OHS Framework

The following **general principles** are relevant to maintaining worker health and safety.

Implementation responsibilities in respect of the project are set out in Section 8.4 - in general the tasks are the Principal Contractor and/or the employer of workers, with CIU providing support for Direct Workers and Direct Workers (Government).

8.3.2.1 Identification and Assessment of Hazards

Establish and maintain effective methods for:

- Systematically identifying existing and potential hazards to employees and the community, including communicable diseases such as COVID;
- Systematically identifying, at the earliest practicable time, new hazards to employees and the community; and
- Regularly assessing the extent to which a hazard poses a risk to employees and the community.

8.3.2.2 Management of Identified Hazards

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

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

One option available for the application of prevention and control measures to occupational hazards is to adopt comprehensive job safety analyses (JSA) or similar formal screening process.

Job safety analysis (JSA) is a process involving the identification of potential health and safety hazards from a particular work activity and designing risk control measures to eliminate the hazards or reduce the risk to an acceptable level. JSA's or equivalent systematic process must be undertaken for all discrete project activities, particularly site visits or field-work (including where there may be no designated worksite),such that the risks can be readily identified and appropriate risk management measures designed. This Framework includes a template for a JSA (Section 8.5 below).

The results of such analyses should be reviewed by a trained person in the PIU/CIU and outcomes prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

8.3.2.3 Training, awareness and supervision

All reasonably practicable steps must be taken to provide to workers (in appropriate languages) the necessary information, instruction; training and supervision to protect each worker's health and to manage emergencies that might reasonably be expected to arise in the course of work. Training and supervision extends to the correct use of PPE (if appropriate to worker activities) and providing workers with appropriate incentives to use PPE.

Workers will receive OHS induction training when they commence work, and thereafter on a regular (at least annual) basis and when changes are made in the workplace. Training must cover the relevant aspects of OHS associated with daily work, including the ability to stop work without retaliation in situations of imminent danger.

Induction training will be directed at ensuring all new workers are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees. Training should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. A typical induction checklist is set out as follows.

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

Records of the training will be kept on file.

On the following page is a typical induction checklist.

Workplace Induction Checklist

Organization name:			
Employee name:		Position/job title:	
Employment start date:		Supervisor/manager:	

This workplace
I have been shown/introduced to:
☐ My supervisor/manager
☐ Other employees
☐ Key jobs, tasks and responsibilities
☐ Work area, toilets, eating and drinking facilities
☐ Where to make phone calls and collect messages

Employment conditions
I know about:
☐ Work times and meal breaks
☐ Rates of pay and how payment is made
☐ Leave entitlement
☐ Sick leave and who to call if I'm sick

Health and safety
I have been shown:
☐ How to do my job safely, including the use of guards and other safety equipment
☐ The safety signs and what they mean
☐ How to safely use, store and maintain safety equipment
☐ How to safely use, store and maintain equipment, machinery, tools and hazardous substances

I know:
☐ My responsibilities as an employee
☐ Who my health and safety representatives are
☐ Where health and safety information is kept

Hazards
I know:
☐ The hazards in my workplace
☐ The controls for these hazards
☐ How to report hazards
☐ Where records of hazards are kept
☐ The procedures for working safely
☐ I will receive the results of personal health monitoring

Emergencies
I am familiar with:
☐ The location of the emergency exits
☐ The location of the fire extinguishers
☐ The evacuation procedure
☐ The first-aid kit and its location
☐ Who can provide first-aid (if applicable)

My assembly area is:
My emergency wardens are:

Incidents and injuries
I know:
☐ To report injuries, near hits and misses and early signs of discomfort and how to report them
☐ Where incident/injury forms are kept
☐ Who I report to
☐ Reports will be investigated and I will be informed of the results

Signed by worker:

Signed by Manager:

8.3.2.4 Reporting Protections

Workplace processes will be provided by the Principal Contractor or employer for all Project workers to report work situations that they believe are not safe or healthy. Project workers can remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health. Project workers who remove themselves from such situations will not be required to return to work until necessary remedial action to correct the situation has been taken. Project workers will not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal.

8.3.2.5 General duty of workers

Each worker shall:

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

Supervisors to ensure immediate response to injury and ensure *injury is medically treated as necessary.*

8.3.2.6 Personal Protective Equipment

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

PPE is considered to be a last resort that is above and beyond the other facility controls and provides the worker with an extra level of personal protection. Table B.3-1 below presents general examples of occupational hazards and types of PPE available for different purposes.

Table B.3-1: Priority Actions, responsibilities and timing

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

Recommended measures for use of PPE in the workplace include:

- Active use of PPE if alternative technologies, work plans or procedures cannot eliminate, or sufficiently reduce, a hazard or exposure;
- Identification and provision of appropriate PPE that offers adequate protection to the worker, co-workers, and occasional visitors, without incurring unnecessary inconvenience to the individual;
- Proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for Employees; and
- Selection of PPE should be based on the hazard and risk ranking described earlier in this section and selected according to criteria on performance and testing established.

Those persons responsible for site activities (employers, contractors) shall:

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

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

8.3.2.7 Monitoring

Occupational health and safety monitoring should be part of the OHS management and verify the effectiveness of prevention and control strategies. The selected indicators should be selected on the basis of screened OHS risks for each site, and should be representative of the most significant occupational, health, and safety hazards, and the implementation of prevention and control strategies.

Subject to the outcome of OHS screening, the OHS monitoring program should include:

Safety inspection, testing and calibration: This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools used. The inspection should verify that issued PPE continues to provide adequate protection and is being worn as required.

Surveillance of the working environment: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments. Monitoring and analyses should be conducted according to internationally recognized methods and standards.

Surveillance of workers health: When extraordinary protective measures are required (for example, against hazardous compounds), workers should be provided appropriate and relevant health surveillance prior to first exposure, and at regular intervals thereafter.

Training: Training activities for employees and visitors should be adequately monitored and documented (curriculum, duration, and participants). Specific training, and/or certification (including evidence of certification) should be provided for certain tasks and activities (e.g. working at height, enclosed spaces etc) as required. Emergency exercises, including fire drills, should be documented adequately.

Accidents and Diseases monitoring: The employer should establish procedures and systems for reporting and recording:

- Occupational accidents and diseases.
- Dangerous occurrences and incidents.

These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health (Section 8.3.2.4).

All reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses should be investigated with the assistance of a person knowledgeable and competent in occupational safety. The investigation should:

- Establish what happened.
- Determine the cause of what happened.
- Identify measures necessary to prevent a recurrence.

8.3.3 Priority Actions

Priority actions, responsibilities and timing are outlined in Table 10.3-2.

Table 10.3-2: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Initial screening of Project workplaces to indicate likely level of OHS Risk	CIU	Prior to works commencing
Develop OHS management procedures appropriate to scale of OHS risk at each workplace (and cleared by CIU pre-start); to include: ➢ identification, assessment and management of hazards (including JSA); ➢ training and supervision; ➢ reporting protections; ➢ general duties of employees; ➢ documentation; ➢ training and awareness; ➢ PPE; ➢ monitoring.	Contractor (for Civil construction workplaces) OR Employer/PIU/CIU for other Project-related workplaces	Civil work places - Prior to construction OR (For other categories of workplaces) Prior to workers commencing work
Ensure all staff and contractors are aware of OHS Management procedures and are briefed on those procedures during induction.		
Primary Suppliers (quarries) assessed as significant OHS risk to develop Quarry OHS procedures as set out in Section **Error! Reference source not found.** of this LMP	PIU based on information obtained by contractor	Prior to procurement of supplies from quarry

8.4 Worker-specific OHS Management

8.4.1 OHS Activity Classification

The management of OHS risk needs to be appropriate/proportionate for the scale of the risk. This means risks with potentially significant consequences (e.g. chronic ill-health, serious injury, death) may require more effort and resources to determine the most effective way to eliminate/minimise the risk.

The indicative risk associated with particular project workers will inform the level of detail required in particular OHS Management Plans.

Project workers fall into two broad categories – whether they are largely office-based or whether they are construction-based which includes use of machinery and plant.

8.4.2 Direct Workers

Direct workers comprise MWIU / PIU staff and individual consultants engaged by MWIU PIU, and will largely be office-based, but will undertake site visits or field trips from time to time. MWIU and PIU (with the support of CIU) will be required to develop OHS-related worker induction (see Section 8.3.2.3), hazard identification and risk management procedures around workplace hazards such as

a. Tripping
b. Falls
c. Ergonomics
d. Workplace bullying[4]
e. "Out of office" hazards such as

   i. Driving
   ii. Field work
   iii. Meetings
   iv. Travel in boats
   v. Working with aircraft

For office-based workplaces, a hazard checklist should be used, such as the checklist set out as follows:

All identified hazards are to be recorded on a hazard register which also sets out the significance of hazards and the practicable steps (elimination, isolation or minimisation) taken to control them. An example Hazard Register is set out below.

Controls are to be monitored as required, and the CIU is to review the hazard register annually.

[4] Verbal, physical, social or psychological abuse by another person or group of people at work

EXAMPLE OF OFFICE HAZARD CHECKLIST

Division:	Checked By:
Business Unit:	Date:
Location:	
Consider all the tasks required to produce an outcome from each office-based section of the organization.	

Job Design ➢ Has each job been designed to provide a variety of tasks throughout the day in terms of physical and mental workload? ➢ Are highly repetitive tasks (such as keying) performed for more than 2 hours at any one time? ➢ Are tasks that require a high level of concentration performed for more than 2 hours at any one time? ➢ Are employees trained to vary tasks and postures throughout the day? ➢ How are individuals given feedback regarding their work performance?	❑ ❑ ❑ ❑ ❑	Comments
Lighting ➢ Is there sufficient lighting for the performance of tasks? ➢ Are employees able to control incoming natural light? E.g. close blinds ➢ Is artificial lighting causing reflections from work surfaces? ➢ Do employees have tired, sore or irritated eyes at the end of a day?	❑ ❑ ❑ ❑	Comments
Noise ➢ Is noise a problem in the workplace? ➢ Is it difficult to hear a normal voice within 1 meter distance? ➢ Are there distracting or disruptive noises in the area? ➢ How well do screens or partitions control noise?	❑ ❑ ❑ ❑	Comments
Manual Handling ➢ Are there objects that require pushing, pulling, lifting, lowering, carrying, holding or moving and do these actions require considerable physical effort or force to complete? ➢ Are there large, awkward or heavy objects to be handled? ➢ Are these objects handled more than once every 5 minutes? ➢ Is handling required more than 5 times per hour over a day? ➢ Is handling performed below mid-thigh height or above shoulder height?	❑ ❑ ❑ ❑ ❑	Comments
Office Layout ➢ Is there sufficient space for tasks to be carried out? ➢ Is there sufficient space for the equipment and the operator? ➢ Is there sufficient space for light, intermediate and busy foot traffic? ➢ Is there sufficient circulation space around each workstation? ➢ Are there separate areas for tasks that require dedicated space? ➢ Is there a separate area for photocopying?	Check ❑ ❑ ❑ ❑ ❑ ❑	Comments

Workstations	Check	Comments
➢ Is there sufficient space at the workstation for documents to be spread out within easy reach?	❑	
➢ Is there easy access to equipment such as telephone and keyboard?	❑	
➢ Is there adequate and safe height adjustability of work surfaces?	❑	
➢ Are workstations and equipment set up to reduce awkward postures?	❑	
➢ Are standing workstations suitable for a range of users?	❑	
➢ Is there sufficient desk width and depth for the tasks carried out?	❑	
➢ Are there provisions for sitting at this workstation where short period of continuous work are required?	❑	
➢ Are the chairs stable when sitting down and standing up?	❑	
➢ Are the chairs adjustable for different users? Are the visitors' chairs adequate for the number and type of visitors?	❑	
➢ Are the receptionist's chairs adjustable from the seated position?	❑	
➢ Are the reception chairs used by multiple operators?	❑	
➢ Do the keyboard operator chairs provide support and comfort to all individual operators?	❑	
➢ Are these chairs adjustable in height and backrest angle from seated? What degree of adjustability -- is it suitable?	❑	
➢ Is there a need for foot rests?	❑	
➢ Are document holders provided?	❑	
➢ Are staff trained to adjust their workstation furniture ?	❑	
Storage		Comments
➢ Is there sufficient general storage space for the office?	❑	
➢ Is there sufficient storage space at each workstation?	❑	
➢ Is storage space suitably designed to be within easy reach (that is, between shoulder and mid- thigh height)?	❑	
➢ Are steps available for reaching higher shelves? Is there sufficient space around storage areas to enable easy and safe access?	❑	
Visual Display Units	Check	Comments
➢ Is the computer screen size adequate for the task being performed?	❑	
➢ Is the force required to press the keys too high or too light?	❑	
➢ Is there adjustability for the screen brightness?	❑	
➢ Is there adjustability of the screen height?	❑	
➢ Is there a keyboard rest that frees up desk space for other tasks?	❑	
Copying Equipment	Check	Comments
➢ Is there adequate copying equipment, in good working order, for the work required?	❑	
➢ Are copier lids intact and functioning to reduce exposure to intense light?	❑	
➢ Are self-contained toner cartridges supplied in a sealed state?	❑	
➢ Are procedures for the use and maintenance of copying equipment adequate, in place and in use?	❑	

How frequently are safety procedures reviewed?		
Hazardous Substances ➢ Is there concern regarding hazardous substances such as paint, glues and cleaning chemicals? ➢ Are there noticeable fumes in the air? ➢ Do any work processes use or generate dust, smoke, fumes or gases? ➢ Are there any hazards in the office known to be toxic, corrosive, flammable or explosive?	❑ ❑ ❑ ❑	Comments
Housekeeping ➢ Are the floors of all offices and passageways, corridors, storerooms or stairways:- • kept free from obstruction • properly maintained • covered with non-slip material • adequately illuminated? ➢ Does management ensure that all equipment is regularly serviced and maintained to manufacturers specifications? ➢ Has management developed a system for immediately fixing faulty equipment? ➢ Are all filing cabinets, cupboards, stable – for example, attached to the wall or floor to prevent them falling over? ➢ Are filing cabinets and cupboards located clear of doors, corridors and frequently used passages? ➢ Are sharp corners of furniture and other fittings situated so as to avoid a hazard to people passing them?	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑	Comments
Electrical Connections ➢ Is the use of power boards or extension cords minimized? ➢ Are electrical cords and connections inspected regularly? ➢ Are all electrical cords in as-new condition? ➢ Are all appliances in use suitable and in good condition	❑ ❑ ❑ ❑	Comments
Workplace bullying ➢ Are there any records of workplace bullying? ➢ Have measures been established to prevent or respond to workplace bullying?	❑ ❑	Comments
Out of office" hazards ➢ Are any workers engaged in the following activities as part of project-related work? ▪ Driving ▪ Field work ▪ Meetings ▪ Travel in boats ▪ Working with aircraft ➢ If the answer to the above question is yes then have risk management plans for each sub-activity been prepared?	❑ ❑	Comments

Example Hazard Register

Hazard	Significant		Practicable to eliminate		Practicable to isolate		All practicable steps to minimise		Controls required (including existing)	Person responsible	Date to be completed by	Completed (date and initials)
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				
	Y	N	Y	N	Y	N	Y	N				

8.4.3 Direct Workers (Government)

Direct workers (Government) are RMI civil servants working either full-time or part-time on Project development and implementation. This category includes Government civil servants in the PIU, CIU, DIDA, MWIU, working part-time or full-time on the project)

Direct workers (Government) are generally will be subject to the same OHS procedures set out in Section 8.4.2 of this LMP in regard to project-related activities including site visits.

8.4.4 Contracted Workers

Contracted Workers fall into two categories:

- Consultant firms providing technical advisory services; and
- Contractors engaged on civil works involving large equipment and plant

8.4.4.1 Consultant Firms

Consultants engaged to provide technical advisory services are generally office based and will be subject to the OHS procedures set out in Section 8.3.2 of this LMP **OR** Consultant may provide and be subject to their own internal OHS plans if, and subject to approval by CIU, the internal plans cover those matters set out in Section 8.3.2.

8.4.4.2 Civil Works Contractors

Contractor Bid Documentation

OHS clauses are to be incorporated in MWIU bid documents for all contracted works.

Principal Contractor OHS Management

The Principal Contractor will be subject to the OHS procedures set out in Section 8.3.2 of this LMP **OR** the Principal Contractor may provide and apply their own internal OHS plans if, subject to approval by CIU, the internal plans cover those matters set out in Section 8.3.2.

Subcontractor OHS Management

Subcontractor OHS oversight will be the responsibility of the Principal Contractor.

The objectives of Sub-Contractor OHS Management are:

1. To outline the relationship between the Contractors in MURP; and
2. To outline the methods by which the Principal Contractor, will assure the production of quality deliverables from each of its subcontractors and primary suppliers and assure environmental, social and health and safety risk mitigation measures are implemented by all parties.

The approach to Subcontractor OHS management is based on the following guiding principles which shall be included in contract documentation between the Principal Contractor and the Subcontractor:

a. Effective channels of communications clearly defined and established;
b. A Statement of Work relating to OHS management responsibilities will be developed jointly by the Principal Contractor with each Subcontractor;
c. OHS responsibilities will be consistent with Section Section 8.3.2 of this LMP;
d. Each Subcontractor will have its OHS responsibilities clearly identified and described in the Statement of Work;
e. All OHS constraints imposed on the Subcontractor will be clearly identified in the Statement of Work;
f. Each subcontract will contain appropriate terms and conditions relating to OHS management;
g. Subcontractors will clearly identify persons responsible for OHS management in their organization;
h. Each sub-contractor organization will have a single point of contact with the Principal Contractor for OHS matters. Subcontractors are expected to identify their own single point of contact for OHS matters;

i. Each Subcontractor organization will have a single point of contact with the Principal Contractor for OHS matters. The Subcontractors are expected to identify their own single point of contact for OHS matters;

j. Where a significant risk of child labor or forced labor is identified in relation to Subcontractor's operations, the Subcontractor will be required to identify those risks, and shall set out steps to remedy those risks; and

k. The Principal Contractor must be kept aware of any OHS child labor or forced labor issues arising.

Training and awareness of all staff and contractors on the Project GM, Labor GM and relevant OHS Subcontractor management is to be undertaken by the Principal Contractor during induction and through the Project (e.g. weekly toolbox meetings) as necessary.

8.5 Job Safety Analysis (JSA)

Add Organisation Name:

Ref: Version:

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

JSA – Action steps

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

Review number: Version: Review number: Version:

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

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

Appendix A Code of Conduct

CODE OF CONDUCT[5]

The [**INSERT NAME OF PROJECT**] (the Project) has a duty to implement measures to address environmental and social risks related to the Works including the risks of sexual exploitation and abuse (SEA) and sexual harassment (SH).

This Code of Conduct is part of measures required under the Project to deal with potential environmental and social risks related to construction works and other activities undertaken under the Project. It applies to all [**INSERT NAME OF IMPLEMENTING AGENCY**] and Project Implementation Unit (PIU) staff and individual consultants engaged on the Project; consultant firms providing technical advisory services; and contractors engaged on civil works for the Project. It also applies to the personnel of each subcontractor and any other personnel assisting the contractor in the execution of the Works. All such persons are referred to as "Contractor/Employer's Personnel" and are subject to this Code of Conduct.

This Code of Conduct identifies the behaviour that the Project requires from all Contractor/Employer's Personnel.

The workplace is an environment where unsafe, offensive, abusive, or violent behaviour will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

I, _____, acknowledge that adhering to environmental, social, health and safety (ESHS) standards and the Project's occupational health and safety (OHS), and sexual exploitation and abuse (SEA) and sexual harassment (SH) requirements are important.

I agree that while working on the Project I will:

a. Comply with this Code of Conduct and all laws of the Republic of Marshall Islands, regulations, and other requirements, including protecting the health, safety and well-being of other Contractor/Employer's Personnel and any other persons.
b. Consent to a background check in any place I have worked for more than six months.
c. Attend training courses related to ESHS, OHS, and SEA and SH as requested by my employer.
d. Carry out my duties competently and diligently.
e. Avoid and declare any conflicts of interest (such as benefits, contracts, or employment, or any preferential treatment or favors are not provided to any person with whom there is a financial, family, or personal connection).
f. Ensure the proper use of all worksites including not engaging in theft, carelessness, or waste.
g. Use specified sanitary facilities provided by the employer and not open areas.
h. Maintain a safe working environment including by:

- Ensuring that workplaces, machinery, equipment, and processes are safe.
- Wearing personal protective equipment when required at Project Site.
- Using appropriate protective measures relating to chemical, physical, and biological substances and

[5] All Contractors, Consultants and Workers are required to sign this Code of Conduct as a condition of employment. This one is for WB MIMIP workers.

agents.
- Following applicable emergency operating procedures.
- Reporting work situations that are not safe or healthy.
- Removing myself from a work situation which is an imminent and serious danger to my life or health.

i. Not consume alcohol or use of narcotics, drugs or other substances which can impair faculties during work activities, including attending work under the influence of these substances.
j. Not discriminate against any person based on family status, ethnicity, race, gender, sexual orientation and identity, age, language, religion, marital status, political or other opinion, national origin, disability, health, or other status.
k. Treat all members of the community(ies) and any affected person(s) with respect, including to respecting their religion, culture, beliefs, and traditions.
l. Not use language or behavior toward any person that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
m. Comply with all laws of the Republic of the Marshall Islands, including but not limited to, not perpetrating any form of physical or sexual violence.

Not exploit or sexually exploit or abuse (SEA) any person.[6]

n. Not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature toward Contractor/Employer's Personnel other Contractors, visitors to Project Sites or any other persons at or around the Project Sites.
o. Not engage in sexual favors with any Contractor/Employer's Personnel or members of the community.
p. Not use prostitution in any form at any time.
q. Not engage in Rape.[7]
r. Not engage in Sexual Assault.[8]
s. Not engage in human trafficking of any person or exploit a trafficked person.
t. Not participate in sexual contact or activity with children under the age of 18, except in the case of a pre-existing marriage. Mistaken belief regarding the age of a child or "consent" from the child are not a defense or excuse.
u. Unless there is the full consent[9] by all parties involved, not have sexual interactions with any person.
v. Ensure the protection and safety of children under the age of 18 by:

- Informing my manager of the presence of any children on the Project Site or who are engaged in hazardous activities as part of the Project.
- Wherever possible, ensuring that another adult is present when working close to children.
- Not inviting unaccompanied children, who are not my family, into my home.
- Not accessing child pornography.
- Refraining from physical punishment or discipline of children.
- Taking appropriate caution when photographing or filming children for work-related purposes.[10]

w. Report through the GRM or to my manager any breaches of this Code of Conduct.
x. Not retaliate against any person who reports violations of this Code of Conduct.

[6] **SEA** means any actual or attempted abuse of position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially, or politically from the sexual exploitation of another. In Bank financed projects/operations, sexual exploitation occurs when access to or benefit from Bank financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain

[7] **Rape** means physically forced or otherwise coerced penetration—even if slight—of the vagina, anus or mouth with a penis or other body part. It also includes penetration of the vagina or anus with an object. Rape includes marital rape and anal rape/sodomy. The attempt to do so is known as attempted rape. Rape of a person by two or more perpetrators is known as gang rape.

[8] **Sexual assault** means any form of non-consensual sexual contact that does not result in or include penetration. Examples include attempted rape, as well as unwanted kissing, fondling, or touching of genitalia and buttocks.

[9] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance, or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. Consent cannot be given by a child under the age of 18, even where legislation in the RMI has a lower age.

[10] Including: complying with local traditions or restrictions for reproducing personal images, obtaining informed consent from the child and a parent or guardian of the child, and presenting children in a dignified and respectful manner.

I understand that:

1. failures to comply with this Code of Conduct constitute acts of gross misconduct and are therefore grounds for sanctions, penalties, and/or potential termination of employment. Prosecution by the police of those who break the law of the Republic of Marshall Islands may be pursued if appropriate.
2. if I breach this Code of Conduct, my employer will take disciplinary action which could include:
    - Informal or formal warning.
    - Additional training.
    - Loss of up to a salary for a period of time.
    - Suspension of employment (without payment of salary), for a period of time.
    - Termination of employment.
    - Report to the police or other relevant authorities.

I do hereby acknowledge that I have received and read this Code of Conduct in a language that I comprehend, I agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, and SEA and SH.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

I understand that any action inconsistent with this Code of Conduct or failure to act mandated by this Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Name: _____

Position: _____ Date: _____

Appendix B Civil Works Contractor – Occupational Health And Safety Clauses

B.1 General – Preparation of Contractor's OHS Procedures

The Contractor must prepare OHS procedures, to be cleared by the client prior to works starting, which includes the following:

- Occupational Health and Safety Management procedures (refer to Appendix B of the LMP for details).
- Identification of staff responsible for, health and safety management, complaints management and reporting to the client.
- Risk register documenting the site-specific and project specific risks.
- Training plan and training records relating to OHS.

B.2 Community and Worker Health and Safety

Site-specific mitigation to be inserted in the bid documents:

- The Contractor shall at all times implement all reasonable precautions to prevent and reduce accidents and injuries to staff and workers and protect the health and safety of the community.
- The Contractor shall prepare and implement a OHS management procedures commensurate with the identified health and safety hazards at the construction site/s and it shall include activities related to construction (such as the transportation of materials and working in road easements).
- The Contractor shall at all times provide and maintain construction plant, equipment and systems of work that are safe and without risks to health. This shall include maintaining equipment, engines, and related electrical installations in good working order; maintaining a clean and tidy workspace; providing safe and exclusion barriers (e.g. guards and rails), signage, and lighting; providing work site rules, safe working procedures and allocating appropriate places to carry out the work.
- The Contractor shall provide, at his/her own expense, the protective clothing and safety equipment (Personal Protective Equipment - PPE) to all staff and labor engaged on the Works to the satisfaction of the PIU. Such clothing and equipment shall include, as a minimum:
    - High visibility vests for workers directing traffic;
    - Protective boots, gloves and hard hat for the workforce undertaking excavation works; and
    - Sun protection (e.g. hat, long sleeved shirt/pants etc).

  If the Contractor fails to provide such clothing and equipment, the PIU has the right to issue a stop work notice until the Contractor has provided the suitable equipment.
- The Contractor shall, before commencing work, conduct an induction course with all relevant workers on environmental management and safety and health at the site. The information and training shall be on the site and have duration of at least two hours.
- The Contractor shall prepare and implement a Traffic Management Plan (TMP) to ensure that any traffic and/or pedestrian hazards caused by the works are adequately managed. Special emphasis needs to be placed on the management of pedestrian movements and access through all work sites, including considerations for the elderly and youth (i.e. children).
- The Contractor shall adopt the following for workers working at height, in addition to RMI and state regulations:
    - The area around which elevated work is taking place should be barricaded to prevent unauthorized access. Working under other personnel should be avoided;

- Hoisting and lifting equipment should be rated and maintained and operators trained in their use. Elevating platforms should be maintained and operated according to established safety procedures that include such aspects as equipment and use of fall protection measures (e.g. railings), movement of location only when the lift is in a retracted position, repair by qualified individuals, and the use of effective locks to avoid unauthorized use by untrained individuals;
- Ladders should be used according to pre-established safety procedures including proper placement, climbing, standing, and the use of extensions, as outlined in the Contractors OHS procedures.
- Implementation of a fall protection program that includes training in climbing techniques and use of fall protection measures; inspection, maintenance, and replacement of fall protection equipment; and rescue of fall-arrested workers, among others; and
- Establishment of criteria for use of 100 percent fall protection (typically when working over 2 meters (m) above the working surface, but sometimes extended to 7 m, depending on the activity).

- The Contractor shall implement confined space entry management procedures where workers will be entering confined spaces (if required), which are to be outlined in the Contractors OHS procedures.

B.3 Worker Code of Conduct

- All workers shall be required to sign and adhere to a Code of Conduct CoC) prepared by the Contractor (refer Appendix A of this Contractor Management Plan Outline), relating to worker behavior to avoid harm to community members, including reference to Gender Based Violence (GBV), Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH).
- Training will be provided to outline appropriate behavior and implications for nonconformance and general awareness of SEA/SH, along with general awareness of the Grievance Mechanism (GM) for SEA/SH.

Appendix C Civil Works Contractor – Occupational Health And Safety Clauses

C.1 General – Preparation of Contractor's OHS Procedures

The Contractor must prepare OHS procedures, to be cleared by the client prior to works starting, which includes the following:

- Occupational Health and Safety Management procedures (refer to Appendix B of the LMP for details).
- Identification of staff responsible for, health and safety management, complaints management and reporting to the client.
- Risk register documenting the site-specific and project specific risks.
- Training plan and training records relating to OHS.

C.2 Community and Worker Health and Safety

Site-specific mitigation to be inserted in the bid documents:

- The Contractor shall at all times implement all reasonable precautions to prevent and reduce accidents and injuries to staff and workers and protect the health and safety of the community.
- The Contractor shall prepare and implement a OHS management procedures commensurate with the identified health and safety hazards at the construction site/s and it shall include activities related to construction (such as the transportation of materials and working in road easements).
- The Contractor shall at all times provide and maintain construction plant, equipment and systems of work that are safe and without risks to health. This shall include maintaining equipment, engines, and related electrical installations in good working order; maintaining a clean and tidy workspace; providing safe and exclusion barriers (e.g. guards and rails), signage, and lighting; providing work site rules, safe working procedures and allocating appropriate places to carry out the work.
- The Contractor shall provide, at his/her own expense, the protective clothing and safety equipment (Personal Protective Equipment - PPE) to all staff and labor engaged on the Works to the satisfaction of the PIU. Such clothing and equipment shall include, as a minimum:
    - High visibility vests for workers directing traffic;
    - Protective boots, gloves and hard hat for the workforce undertaking excavation works; and
    - Sun protection (e.g. hat, long sleeved shirt/pants etc).

  If the Contractor fails to provide such clothing and equipment, the PIU has the right to issue a stop work notice until the Contractor has provided the suitable equipment.
- The Contractor shall, before commencing work, conduct an induction course with all relevant workers on environmental management and safety and health at the site. The information and training shall be on the site and have duration of at least two hours.
- The Contractor shall prepare and implement a Traffic Management Plan (TMP) to ensure that any traffic and/or pedestrian hazards caused by the works are adequately managed. Special emphasis needs to be placed on the management of pedestrian movements and access through all work sites, including considerations for the elderly and youth (i.e. children).

- The Contractor shall adopt the following for workers working at height, in addition to RMI and state regulations:
    - The area around which elevated work is taking place should be barricaded to prevent unauthorized access. Working under other personnel should be avoided;
    - Hoisting and lifting equipment should be rated and maintained and operators trained in their use. Elevating platforms should be maintained and operated according to established safety procedures that include such aspects as equipment and use of fall protection measures (e.g. railings), movement of location only when the lift is in a retracted position, repair by qualified individuals, and the use of effective locks to avoid unauthorized use by untrained individuals;
    - Ladders should be used according to pre-established safety procedures including proper placement, climbing, standing, and the use of extensions, as outlined in the Contractors OHS procedures.
    - Implementation of a fall protection program that includes training in climbing techniques and use of fall protection measures; inspection, maintenance, and replacement of fall protection equipment; and rescue of fall-arrested workers, among others; and
    - Establishment of criteria for use of 100 percent fall protection (typically when working over 2 meters (m) above the working surface, but sometimes extended to 7 m, depending on the activity).
- The Contractor shall implement confined space entry management procedures where workers will be entering confined spaces (if required), which are to be outlined in the Contractors OHS procedures.

C.3 Worker Code of Conduct

- All workers shall be required to sign and adhere to a Code of Conduct CoC) prepared by the Contractor (refer **Error! Reference source not found.** of this Contractor Management Plan Outline), relating to worker behavior to avoid harm to community members, including reference to Gender Based Violence (GBV), Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH).
- Training will be provided to outline appropriate behavior and implications for nonconformance and general awareness of SEA/SH, along with general awareness of the Grievance Mechanism (GM) for SEA/SH.

Appendix D Environmental and Social Screening Forms

FORM 1 – Environmental and Social Screening

(To be completed by the CIU Safeguards Team, with on-ground support from the PIU where appropriate)

Timing: *To be completed after concept or preliminary design*

Purpose: *1) To scope potential environmental risks from proposed works that could be minimized through participatory design; 2) To Inform E&S Assessment and Management Plan Requirements (Form 3)*

3) To inform scope of Terms of Reference for and E&S Consultants to be engaged.

Name of Works:	
Location of Works:	
Date of Form Completion:	
Name of Person Completing Form:	
Date of Site Visit:	
Agencies or People consulted to date (to inform completion of form):	
Attached concept description (circle one)	Yes / No

Form 1a – Environmental Risk Screening (See Section 8 of ESMF)

Potential Impact		Potential Impact (without mitigation)[73] (✓)				Describe
		Low	Moderate	Substantial	High	
1.0	**Physical**					
	Dust / noise / vibration impacts on sensitive receptors (e.g. residential communities, businesses, essential services etc).					
	Generation and discharge of solid and liquid waste (e.g. spoil, refuse, domestic waste/ wastewater, hazardous substances etc).					
	Erosion and sedimentation risk as a result of works (e.g. stream bank, slope, coastal margin, channel modification and hydrology etc).					
	Works within an identified hazard zone (e.g., erosion, flooding, coastal inundation zones).					
	Is construction material required for the design (e.g., rock/ aggregate/ cement) able to be sourced locally74.					☐ Yes ☐ No
						Describe:
	Could an alternative design be explored to decrease / avoid physical environmental impacts?75					☐ Yes ☐ No
						Describe:
2.0	**Ecological**					

[74] Refer to ESMF to determine acceptability

[75] Discuss with design engineer, if required

Potential Impact		Potential Impact (without mitigation)[73] (✓)				Describe
		Low	Moderate	Substantial	High	
	Removal of terrestrial vegetation and/or habitat (incl. riparian vegetation).					
	(a) Native / natural vegetation.					
	(b) Invasive / exotic vegetation (e.g. weeds).					
	(c) Privately owned trees / crops / gardens (refer Form 2b).					
	Potential impacts on freshwater ecosystem, including:					
	(a) Direct disturbance of freshwater habitat (e.g. works footprint within watercourse).					
	(b) Indirect disturbance of freshwater habitat (e.g. from sedimentation, water quality pollution).					
	(c) Risk of barriers to fish passage.					
	Works within or potential disturbance of coastal marine area (CMA)					
	Will works create significant habitat for feral cats and rats?					
	Could an alternative design be explored to decrease / avoid ecological impacts or improve ecological outcomes.					☐ Yes ☐ No *Describe:*

Form 1b – Social & Resettlement Risk Screening (See Section 8 of ESMF)

Potential Impact		Describe
3.0	**Land**	
	Impacts on land outside of the works footprint.	☐ No ☐ Yes (Temporary Use) ☐ Yes (Permanent Loss)
	Estimated extent of land loss outside of the works footprint.	*Estimated area:*
	Estimated number of private landowners are affected?	*Estimated No. of landowners:*
	Is the ownership status and current usage of land to be acquired known?	☐ Yes ☐ No
		Describe:
	Footprint ownership paperwork available and obtained?	☐ Yes ☐ Available, not yet obtained ☐ No ownership paperwork available ☐ Not yet sure if ownership paperwork available (to be confirmed)
	How is this land to be provided?	☐ Voluntary Land Donation (VLD) ☐ Lease / Rental ☐ Willing-seller-willing-buyer ☐ Available Government land ☐ Involuntary acquisition ☐ To be confirmed
		Describe:
		☐ Yes

	Potential Impact	Describe
	Could an alternative design be explored to decrease / avoid land loss[76]?	☐ No
		Describe:
4.0	**Assets**	
	Are there likely to be loss of physical assets and/or crops/productive trees due to works footprint or associated facilities?	☐ Yes ☐ No
	Estimated number of asset owners affected?	*Estimated No. of landowners:*
	What type of assets are affected:	☐ Residential house ☐ Business/commercial structure ☐ Secondary structure (e.g. fence, wall, driveway, pavement, shed or similar) ☐ Crops (including type) ☐ Productive Trees ☐ Perennial Trees ☐ Cultural sites (e.g. grave sites, historic buildings etc)
		Describe:
	Could the assets be relocated or repaired?	☐ Yes ☐ No
		Describe:
	Could an alternative design be explored to decrease/avoid asset loss?	☐ Yes ☐ No
		Describe:

[76] Discuss with design engineer, if required

	Potential Impact	Describe
5. 0	**Livelihoods**	
	Will construction works have any impact on people's livelihood (e.g., economic displacement)?	☐ Yes ☐ No
		Describe:
	Will works have any impact post-construction on people's livelihood (e.g., economic displacement)?	☐ Yes ☐ No
		Describe:
	Estimated number of people/households with livelihoods affected?	*Estimated No. of people/households:*
	What kind of livelihoods are likely to be impacted?	☐ Business/commercial – Owner ☐ Business/commercial – Employee ☐ Agricultural / Farming ☐ Fishing ☐ Other: _____
		Describe:
	Could an alternative design be explored to decrease/ avoid livelihood impacts?5	☐ Yes ☐ No
		Describe:
6.0	**Land Access and Use Restrictions**	

	Potential Impact	Describe
	Are there likely to be access restrictions?	☐ Yes ☐ No
		Describe:
	What kind of access restriction are expected?	☐ Pedestrians (including closure of road verges) ☐ Driveways – Residential Agricultural / Farming ☐ Driveways – Business/commercial ☐ Transport Network ☐ Access to essential services ☐ Coastal margin ☐ Other (e.g., natural resources, communal land/facilities, services etc)
	Is an alternative means of access required (e.g. temporary diversion or water crossing etc)?	☐ Yes ☐ No
		Describe:
	Could an alternative design be explored to decrease/avoid access restriction impacts?	☐ Yes ☐ No
		Describe:
7.0	**Other Social Impacts**	
	Impacts on "sensitive receptors" near the works (e.g., residential communities, businesses, essential services etc).	
	Disproportionate impacts on vulnerable groups, including women, children and people with disabilities, including any potential disruption to services.	

Potential Impact		Describe
	Risks to community health & safety from proposed works (i.e., communities near work site).	
	Risks posed to the community from the construction workforce (e.g., imported/migrant labour related risks), including SEA/SH and VAC	
	Potential negative impacts on community relations (i.e., conflict) due to project works or outcomes?	
	Risk of UXOs in works footprint, and resultant risk to worker health and safety.	

FORM 2 – E&S Assessment and Management Plan Requirements

(To be completed by the CIU Safeguards Team, with on-ground support from the PIU where appropriate)

Timing: *To be completed after concept or preliminary design together with Form 3*

Purpose: *1) To confirm whether Code of Environmental Practice will be followed for minor net impacts*

2)To confirm whether work specific ESIA/ESMPs are required;

3) To determine which Land Access Procedure Plans are required

Name of Works:	
Location of Works:	
Date of Form Completion:	
Name of Person Completing Form:	

Potential Impact		Assessment (✓)		Documents Required
		Yes	No	
1.1	Is the site in an area, or could potentially impact an area, identified as a protected or conservation area?			(Note: If 'Yes', then works specific ESIA & ESMP required)
1.2	Do the works involve land loss, asset loss, or loss of income sources or impacts livelihoods?			(Note: If 'Yes', then Land Access Due Diligence Report required).
1.3	Will the land and/or assets be acquired via Voluntary Land Donation (VLD)?			(Note: If 'Yes', then Voluntary Land Donation Report (VLDR) required)
1.4	Will the land and/or asset loss, or livelihood impacts require financial compensation, as per the entitlement matrix in the RF?			(Note: If 'Yes', then Resettlement Plan (RP) required)

FORM 3 – Agreed Environmental and Social Documents Required

(To be completed by CIU Safeguards Team, with the support of PIU where appropriate)

Timing: *To be completed after concept or preliminary design together with Form 2 and 3*

Purpose: *1) To confirm which ESMPs or land access plans are to be prepared and/or implemented for the works;*

2) To confirm which additional management plans are to be prepared by the Contractor (as informed by the ESMF).

Name of Works:	
Location of Works:	
Date of Form Completion:	
Name of Person Completing Form:	
Name of Person Approving:	

As per the MURP E&S Management Framework (ESMF) the following safeguard documents are to be prepared/implemented for the above works:

☐ Works specific Code of Environmental Practice (COEP) for minor works.

☐ Works specific ESMP

☐ Works specific ESIA

☐ Works specific SEP and GRM

As per the MURP Resettlement Framework (RF) the following safeguard documents will be prepared for the above works:

☐ Land Access Due Diligence Report

☐ Voluntary Land Donation Report

☐ Resettlement Plan

Signature:

Signed by:
(Completed Form)

Date:

Signature:

Signed by:
(Approver)

Date:

Appendix E Chance Find Procedures – Cultural Heritage and UXO

When a person working on the project discovers a cultural heritage site or item, or any item of unexploded ordinance (UXO) the following procedures should be followed.

1. Stop the activities in the area of the chance find;
2. Delineate the discovered site or area (e.g. fencing);
3. Secure the site to prevent any further disturbance, damage or loss.;
4. Prohibit the collection of objects by any person;
5. For chance find of cultural heritage items:
    a. In cases of human remains, arrange for a guard to watch the site until the police, local government and / or person with delegated authority takes over
    b. Notify the local government and RMI Historic Preservation Office within 24 hours (and police if it is human remains);
    c. Any objects that are found must be handed over to the Historic Preservation Office.
    d. Project works can resume only after instruction is provided from the Historic Preservation Office.
6. For chance find of UXO:
    a. Notify the local government, National Police Force and MWIU as soon as possible;
    b. Follow instructions from National Police Force relating to disposal of UXO.
    c. Project works can resume only after instruction is provided from National Police Force and MWIU.

Appendix F MWIU OHS Checklist for Bidders

Republic of the Marshall Islands

Compact Infrastructure Program

Contractor Health and Safety Audit

Project Name:	[Project Name]		
Project Code:	[Project Code]		
Audit/Inspection Completed By:		**Person(s) Seen:**	
Contractor/Area Audited:		**Date:**	

Key:

OK	Meets requirements	**CAR**	Corrective Action Required
N/A	Not Applicable	**NC**	Not Checked

Item No	Element, Checks and Records		Comments and Rating
1	**Site Specific Health & Safety Plan**	HSE Plan Reviewed	
2		Significant hazards identified with controls in place	
3	**Inductions**	Site inductions of staff completed	
4	**Toolbox Talks**	Regular toolbox talks taking place	
5	**Training**	Competence of Plant Operators adequate	
6		Competence of General Staff adequate	
7	**PPE**	Minimum PPE requirements observed	
8		Additional PPE worn where required	
9	**Access / Egress**	Site signing in/out procedure available and in use	
10		Access routes clearly defined	
11		Access routes clear from obstructions	
12		Housekeeping	
13		Work area adequately fenced or taped off	
14		Lighting - adequate for operations in place	
15	**Mobile Plant**	Daily maintenance checks being undertaken	
16		Guarding, seat belts, ropes etc. in place and used	
17	**Work at Height**	Are measures in place to prevent falls from height and/or falling materials and are they adequate (e.g. work platforms with suitable edge protection / safety harnesses etc.)	
18		Scaffolding - weekly inspections completed	

Item No	Element, Checks and Records		Comments and Rating
19		Rescue procedure available and communicated to those involved	
20	**Excavations**	Adequately supported or battered back and fenced	
21		Access / egress into excavation	
22		Records of daily / weekly inspections	
23	**Tools and Equipment**	Electrical equipment tagged and tested in last 3 months	
24		General condition of tools and equipment e.g. cables, splinters etc.	
25		Lifeguards or similar in use	
26	**Manual Handling**	If staff lifting heavy items, has this been considered in work planning and briefing	
27	**Noise**	If noisy operations in progress, is hearing protection being worn and assessments prepared	
28	**Hazardous Substances**	Storage of materials - safe, prevent loss, damage or contamination	
29		Hazard Data Sheet available for each product and precautions being complied with	
30	**Environmental Issues**	If the activity is adjacent to water, are silt, concrete and fuel pollution prevention effective	
31		Dust suppression - if dust is a problem is it being adequately controlled	
32		Drip trays in place for static plant	
33		Availability and location of Spill kit	
34		Refueling operations controlled	
35	**Waste**	Waste disposal - transfer notes in place (traceability)	
36		Specified waste being recycled	
37		Copy of Tip / Transfer Station license available	
38	**Welfare**	Minimum facilities in place	
39	**Emergency**	Fire Extinguishers available and tested	
40		Procedures visible for all to see	
41		Emergency procedures tested including alarms	

Action/Comment Sheet

Date Issued: [Date]

To be completed by Auditor:			To be completed by Person Responsible for Action:	
Item №	**Problem Observed/Comments** (Note any specific Document Reference where relevant)	**Person Responsible for Action**	**Corrective Action Taken/ Comments (If applicable)**	**Action Complete (Initials)**

Good Working Practises

Signed:_____ Date:_____

Appendix G Code of Environmental Practice (CoEP) for minor works.

Mitigation measures are required to avoid and minimize environmental and social risks and impacts related to minor works following screening in accordance with this ESMF.

Table A-1 Draft Codes of Environmental Practice for Minor works

	Environmental and Social Issues	Action Code	Mitigation actions to prevent negative impacts	Applicable? (Y/N)	Completed at Audit? (Y/N)
01.	Site clearance and land disturbance	0101	Minimize the removal of trees and plants.		
		0102	Community consensus on site selection		
		0103	Site is away from habitats such as bird roosting and nesting grounds		
		0104	Use of heavy machinery conducted by trained persons only		
		0105	No disturbance of land until confirmation that land is able to be used		
		0106	Stop any activity if ecologically sensitive areas are disturbed		
		0107	Replant any plants, fruits trees or medical herbs that were cut duringsite clearance.		
		0108	Stop any activity if cultural heritage sites are uncovered, follow Chance Find Procedures and contact relevant authorities		
02.	Noise disturbance	0201	Consult community regarding appropriate timing of noisy activities and avoid noisy activities at night		
		0202	Use noise-control methods (barriers/ shelter/ muffling devices) and maintain a buffer zone if possible		
		0203	Minimize project transportation, particularly heavy vehicles, through residential areas		
03.	Air quality	0301	Do not burn debris or waste materials in proximity to village or site		
		0302	Reduce dust generation through application of water where practical		
		0303	Cover stockpiled materials and secure debris with tarpaulins		
		0304	Limit heavy vehicle movements and idling		
		0305	Identify hazardous materials to be handle only byqualified or appropriately trained persons		
04.	Soil erosion and contamination	0401	Limit ground disturbance to and minimize removal of treesand plants.		
		0402	Complete construction works during dry season and avoid wet season		
		0403	Construct temporary structures / barriers to controlerosion		
		0404	Stabilize cleared area before construction as appropriate		
		0405	Construct retaining walls to stabilize exposed area		
		0406	Avoid construction on unstable soils, steep slopes and near riverbanks		
		0407	Minimize length and steepness of slopes for bridges		
		0408	Re-vegetate cleared areas immediately postconstruction		

	Environmental and Social Issues	Action Code	Mitigation actions to prevent negative impacts	Applicable? (Y/N)	Completed at Audit? (Y/N)
		0409	Confine construction site with trench or bund (mound) to avoid surface runoff from entering surrounding environments.		
		0410	Do not discharge water in areas that are steep and unstable.		
		0411	Construct proper drainage systems to divert water away from activity site and other sensitive environments.		
		0412	Stop any activity that is causing excessive erosion and turbidity		
05.	Water (surface waterrun-off, turbidity, contamination)	0501	Natural water flows should not be altered or changed		
		0502	Construct proper drainage systems		
		0503	Keep waste and hazardous materials away from water bodies		
		0504	Manage site safety to avoid contamination of drinking water fromwaste materials and pollutants		
		0505			
		0506	Do not discharge solid or liquid wastes in waterways or on coastal environment		
		0507	Avoid sedimentation of waterways and coastal areas through erosion control methods (see section 4 on erosion)		
		0508	Manage construction waste to avoid impacts		
06.	Waste (solid and hazardous)	0601	Hazardous materials handled with protective equipment by trained persons only, and securely stored		
		0602	Proper disposal of contaminated waste materials per waste management plan		
		0603	Protocol for accidental spillage is in place		
		0604	Indicate hazards through signs, pictures and labels		
		0605	Do not use or store chemicals, pesticides or fertilizers		
07.	Visual	0701	Revegetation areas as soon as possible		
08.	Extraction of materials	0801	Source sand, rocks and gravel from approved location		
09.	Natural Hazards	0901	Consider long-term climatic affects and seasonal extremes on location and materials		
		0902	Limit use of heavy machinery by trained persons only		
10.	Community and worker safety	1001	Proper management of hazardous materials and waste		
		1002	Awareness of dangers on site and OHS requirements		
		1003	Locked storage of fuels, paints and chemicals (cool, dry shed)		
		1004	Contain mixing area for cement to avoid spillage andcontamination of		

	Environmental and Social Issues	Action Code	Mitigation actions to prevent negative impacts	Applicable? (Y/N)	Completed at Audit? (Y/N)
			surrounding environment.		
		1005	Encourage skilled villagers to participate in and supervise construction works		
		1006	Keep extra materials stockpiled in a safe place undercover, away from walkways		
11.	Land Access	1101	Confirm that land acquisition if necessary involves only Government land, lease documents have been sighted, proposed land use is compatible with lease documentation and land owner approval obtained.		
12.	Social Impact	1201	Ensure outside workers respect the code of conduct of construction activities in the community through briefing session		
		1202	Subproject activity does not conflict with any person's livelihood		
		1203	Identify community members with key responsibilities for project implementation		
		1204	Grievances resolved using the grievance redress mechanism		
		1205	Discontinuation of project if conflict arises and exit strategy followed		

Appendix H MURP Stakeholder Engagement.

(a) Ministry of Works Infrastructure and Utilities (MWIU)

Date: November 3, 2021

Attendees: CIU Safeguards Team, Mr. Melvin Dacillo (PMU Manager) and Mr. Jefferson Barton (Secretary of MWIU)

Matters arising:

- Building Code – Phase 1 complete - draft has been prepared; contains reference to OHS; intended focus on minimum design standards to achieve resilience and avoid impacts of flooding; Phase 2 involves reformatting to recognize both international building codes and RMI requirements and subsequent rollout, with online options
- PMU includes OHS provisions in bid documents (see Appendix F of ESMF)
- PMU is keen to avoid duplication of consultants under this project – for example avoiding consultant overlaps with projects such as PREP II.
- MWIU supports a dedicated PIU housed in PMU offices – especially including a dedicated Project Manager, Project Officer(s) and Civil Engineering Advisor.
- PMU encourages use of a range of design concepts.
- Primary risk area from PMU point of view is protection of public infrastructure.
- Particular focus is needed on lagoon-side adjacent to the western part of the airport runway for Component 2 works (Seawall construction)
- Aggregate sourcing is a challenge – particularly in respect of backfill materials - PMU is constantly looking for new sources for inhouse RMI seawalls – current focus is on Rita lagoon side for fill material.

(b) Marshall Islands Conservation Society (MICS)

Date: November 4, 2021

Attendees: CIU Safeguards Team, Dolores deBrum Kattil (Director MICS), Dua Rudolph (Deputy Director, MICS)

Matters arising:

- MICS has active role in Reimaanlok Process including on Majuro – described approach.
- Provided background material on Majuro for ESMF
- MICS also involved in coordinating stakeholder engagement on Ebeye for PREP II – see this a valuable capacity building project for RMI generally – developing real skills with stakeholder engagement.
- MURP is a significant project for Majuro – and should also incorporate capacity building.

(c) RMI Environmental Protection Authority (EPA)

Date: November 19,2021

Attendees: CIU Safeguards Team, Moriana Phillip (General Manager, RMIEPA)

Matters arising:

- Discussed RMIEPA involvement in projects during the Earthmoving Permit application process under the RMIEPA. .
- Recognized that over time there will be increasing pressure on RMIEPA for approvals for coastal resilient works relating to climate change-induced sea level elevations.

This will arise through initiatives such as the National Adaption Plan (NAP) – ecosystems in RMI are becoming less resilient.

- RMIEPA recognizes the importance of the NAP but notes that the NAP should give due recognitions to E&S risk mitigation. Rolling out NAP initiatives should occur in a way that incorporates E&S protections so that solutions are livable – no-one wants a slab of concrete in the middle of nowhere.
- RMIEPA concerned that the agency doesn't want to be seen as delaying any approval process – need for a fresh look at "roadblocks" in the processing pathways, including how RMIEPA can access technical expertise to assist with technical evaluation of applications, partly capacity building part, and partly technical assistance support. Perhaps consideration could be given to how a "roster of expertise" could be developed. This equally applies to MWIU in respect of E&S awareness as resilient projects are developed.
- Support would ideally be developed in-country – building on expertise from overseas.
- RMI EPA focus is presently on environmental impacts (physical and biological) with a lesser focus on social impacts, although consideration is given to consultation with landowners. Social aspects reflect the connection to the land (and ecosystem services).
- The gap in social impact assessment is recognized by RMIEPA which has a desire to incorporate risk management of social matters in its consideration process. RMI is not presently at a level where it can engage with donors and communities in respect of different social values.
- RMIEPA suggested that there would be merit in both MWIU and RMIEPA addressing social impact risk mitigation in the design and approval process respectively.
- Inclusion of environmental and social risk management in the design and approval (and follow-up) stages would help provide a broader "social license to operate". Early and effective involvement of the RMIEPA is key to streamlining the approval process.
- The RMIEPA approval process needs to be seen as more than just a literal rubber-stamping exercise.
- RMIEPA and MWIU need to work closely on integrating E&S risk management in resilient development initiatives.

(d) Deltares Coastal Vulnerability Assessment

Throughout 2021, stakeholder engagements were undertaken with respect to coastal resilience and response activities on Majuro under the auspices of the Deltares Coastal Vulnerability Assessment, including several events in April 2021. Participating organizations and key issues raised are outlined below:

<u>Agencies Consulted:</u>

- Ministry of Works, Infrastructure and Utilities
- RMI EPA
- GoRMI Climate Change Directorate
- Marshall Islands Marine Resources Authority - Coastal Division
  (i) Marshall Islands Conservation Society
- RMI Ports Authority
- Majuro Water and Sewer Company (MWSC)
- Marshall Islands Energy Company (MEC)
- EPPSO
- Ministry of Natural Resources and Commerce - Division of Agriculture
- Natural Resources and Commerce (NRC)
- HPO/Ministry of Culture and Internal Affairs
- PREP II
- Ministry Transportation Communication and IT
- NDMO

- National Telecommunications Authority
- Majuro Atoll Local Government

Issues Raised:

- Highest coastal risk is at Uliga and Djarrit.
- GoRMI is currently addressing gaps in existing seawalls to minimize the impact of erosion, in response to typhoon Nangka. Mainly in Djarrit and Uliga, working towards Delap.
- Available funding is not sufficient to protect all areas at risk.
- MWIU priority areas in Majuro include:
  - Critical infrastructure, population, and coastal vulnerability are important.
  - Djarrit and Uliga - schools, government buildings, and population are important to consider.
  - Delap - critical infrastructure on the ocean side is the hospital and the capital building.
  - Other critical infrastructure: landfill.
- Ongoing coastal reinforcement, executed by Ministry of Natural Resources and Commerce - Agricultural Section - They are planting traditional trees along the coastline that are salt and drought tolerant. Mainly in Ajeltake
- There are existing marine protected areas (MPAs) for which rules and regulations apply, which should be considered in the design and location of adaptation measures.
- Currently the government is developing protection for the Majuro hospital - critical infrastructure - current seawall is not adequate.
- New dump sites are being allocated, not yet final. This is executed under the ADB solid waste management plan.
- Delap Uliga project for upgrading the current seawall.
- Majuro water and sewer 20-year development plan by the ADB Majuro urban improvement project.
- New wall at Delap dock.
- Contract awarded for a seawall on the ocean side of MEC (Marshalls Energy Company) 100 or 200 m long. MEC can provide additional information.