MINISTRY OF WORKS, INFRASTRUCTURE AND UTILITIES (MWIU)
GOVERNMENT OF MARSHALL ISLANDS

CONSULTING SERVICES FOR DESIGN OF NEW NDMO WAREHOUSE AND OFFICE ACCOMMODATION

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) REPORT FOR THE NEW NDMO BUILDING

FINAL REPORT

SUBMITTED BY:

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EXECUTIVE SUMMARY

This Environmental and Social Impact Assessment (ESIA) for the new National Disaster Management Office (NDMO) warehouse and office accommodation Building (the Project) has been prepared in accordance with the requirements of the Republic of Marshall Islands (RMI) relevant laws and regulations as well as the Environmental and Social Framework of the World Bank (WB). The ESIA is a necessary instrument for the **Component 3: Resilient Public Facilities** of the Marshall Islands Urban Resilience Project (MURP) and the RMI Pacific Resilience Project (PREP) Phase 2.

The new NDMO Building shall serve as an office and warehousing space for the GoRMI, including the Ministry of Finance (MoF), the National Disaster Management Office (NDMO), and the Division of International Development Assistance (DIDA).

Originally a potential location was identified near RMI Ports Authority office in Delap. However, the location was found to be unsuitable and it was decided to find an alternative site for the new NDMO building near the NTA office.

The proposed site is leased by the National Telecommunications Authority (NTA), Republic of Marshall Islands, with a sub-lease to the GoRMI for the project (see agreement appended to this ESIA as Annexure-7). There are no resettlement and rehabilitation (R&R) issues envisaged.

The building design is based on best practices for the resilient, inclusive, and sustainable design of public buildings in RMI. Specifically, there is a need for:

- Office personnel, meeting room and warehousing capacity for NDMO.
- Larger office space and meeting room capacity for various Ministry of Finance functions
- Office and Warehouse space for the Supply section of Ministry of Finance Banking and Postal Services (MoFBPS).
- The building is not intended for general public access.

The building is proposed to be of Ground floor, plus 2 floors for office accommodation plus a possible mezzanine floor. The expected number of occupants is 70 people excluding visitors. The proposed car parking numbers are 9 nos. including 1 no. of disabled parking. The total plot area and the total built-up area of the building are 1393.80 sq.metres and 1245.83 sq.metres respectively. The green belt is proposed in the vicinity of the building i.e. nearby main road within the plot boundary and the area is 177.16 sq. metres.

The building has been designed in accordance with the International Building Code Risk Category II with regard to structure and services

The overall objective of this ESIA study is to ensure that environmental and social considerations of the Project are considered during decision making for environmental sustainability. The specific objectives of the ESIA are:

- Identification and assessment of the potential environmental and social impacts of the project activities, (including the different stages i.e. design, construction, operation and routine maintenance).
- Identification of the potential impacts due to the proposed project on the adjacent area such as infrastructure changes, urban planning opportunities, traffic assessments of this impacts, etc.
- Identification of all potential environmental and social impacts as well as actions to mitigate negative impacts on Gender related issues
- Preparation of an Environmental and Social Management Plan (ESMP) in line with the World Bank Environmental and Social Framework (ESF), and the National Environmental Protection Authority (RMIEPA) requirements, and to ensure that project affected persons are meaningfully consulted and given opportunities to participate in project decision making process to maintain credibility of the Project developers and funders.

Legal Framework and WB Environmental and Social Framework

The recommendations included in this ESIA Report are designed to ensure compliance with the National Environmental Protection Act, 1984; Environmental Impact Assessment Regulations, 1994 and the World Bank Environmental and Social Framework.

Anticipated Environment and Social Impacts and Mitigation Measures

The ESIA Study Report identifies various positive and negative impacts associated with the proposed NDMO Building project and suggests suitable mitigation measures for reducing the negative impacts and building climate resilience along with the cost estimates for management of environmental and social mitigation measures.

The ESIA study has identified and addressed all significant impacts of the project; both positive and negative.

The key climate risks to the building are flooding due to extreme sea level events, extreme temperatures and extreme precipitation. These have been considered in the design of the building.

Regarding impacts of the project on the environment, all identified negative impacts appear to be of small-scale. Dust (air pollution), noise, and waste impacts are considered to able to be mitigated and to be of no more than minor significance. Impacts are temporary in nature considering the mitigation measures that have been

proposed. No impacts are anticipated in relation to land use or land acquisitions are not anticipated. The land is occupied by NTA under a headlease, with occupation rights for the building agreed to be sub-leased to GoRMI for as noted in the signed agreement appended to end of this ESIA).

Overall the environmental and social impacts are expected to be no more than minor, in most cases site specific and with measures available to ensure their effective mitigation and or reversal.

Stakeholder Engagement

The consultations generated valuable contributions to the proposed development. All stakeholders support the idea of the project to be developed in the proposed area taking into consideration the potential for improving government efficiencies for the benefit of Majuro and the country at large.

The Grievance Redress Mechanism (GRM) developed in the ESMF for URP project will be applied to the Project to deal with grievances arising from technical advisory, design, institutional strengthening, construction or operation impacts from activities associated with the Project in an efficient, unbiased, transparent, confidential timely and cost-effective manner.

ESMP

The Contractor will be required to prepare a Contractor ESMP incorporating the mitigation measures set out in this ESIA.

The following were identified as the key ESMP measures for implementation as part of the project:

- Physical barriers for the reduction of the construction related noise
- Waste and Dust control, use of minimum disturbance techniques during construction for ensuring minimal changes to the environment.
- Create a clear system for identifying and responding to GBV and SEA / SH incidents.

ESMP Budget

An estimated budget for ESMP Implementation is US$20,000. The RMI URP PIU is responsible for construction works and will ensure this budget is approved and available to support safeguards implementation.

This budget covers the cost of consultants, stakeholder engagement, and preparation of required safeguards instruments, short term training and workshops, disclosure, monitoring and reporting costs.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

ABBREVIATIONS

AOI	Area of Influence
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
DEM	Digital Elevation Model
EEZ	Exclusive Economic Zone
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
WBESF	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
GDP	Gross Domestic Product
GESI	Gender Equality and Social Inclusion
GIS	Geographic Information Systems
GoRMI	Government of Marshall Islands
GNI	Gross National Income
GRM	Grievance Redress Mechanism
HPO	Historic Preservation Office
HT	Human Trafficking
IA	Implementing Agency
IBAs	Important Bird Areas
IDA	International Development Association
IOL	Inventory of Loss
IOM	International Organization for Migration
LGRM	Labor Grievance Management Mechanism
LMP	Labour Management Procedures
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
MPWIU	Ministry of Public Works, Infrastructure, and Utilities
MWSC	Majuro Water and Sewerage Company
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
NTA	National Telecom Authority
OCS	Office of the Chief Secretary
OHS	Occupational Health and Safety
PAP	Project Affected Person
PIU	MURP Implementation Unit
PMU	MPWIU project Management Unit
PREP II	World Bank funded Pacific Resilience Project, Phase II (WB)
PROPER	Pacific Islands Regional Oceanspace Program for Economic Recovery and Resilience (PROPER) Project
PSC	Project Steering Committee
PSS	Public School System
PWD	People with Disabilities
MURP	Marshall Islands Urban Resilience Project
RCC	Reinforced Cement Concrete
RF	Resettlement Framework
RMI	Republic of the Marshall Islands
R&R	Resettlement and Rehabilitation
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
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

CHAPTER 1
INTRODUCTION

1.1 GENERAL

The Republic of Marshall Islands (RMI) is one of the world's smallest, most isolated and vulnerable nations. The country consists of 29 atolls and five isolated islands (of which, 24 are inhabited). RMI has a total land mass of just 181 km^2, which is set in an area of over 1.9 million km^2. RMI's population is estimated at about 53,000, of which over half are residents of the capital city of Majuro.

The RMI is vulnerable to a variety of disaster risks, including recurrent droughts, coastal hazard, tropical storms, and to a lesser extent, typhoons. The average annual loss related to typhoon and tsunami is about 1.7% of GDP. The population of RMI is concentrated on small, low-lying atolls, which is home to 99% of the population, and renders it particularly susceptible to extreme waves and high tides and this makes RMI vulnerable to natural disasters and climate change.

Climate change is also projected to result in progressive changes such as sea level rise which accelerates coastal erosion, increases coastal inundation, and increase salinization of fresh water resources. Coral reefs which offer natural protection of the shorelines, will be affected by ocean acidification and higher temperatures. Experience in RMI shows that coral reefs are already being damaged by human waste; garbage, and debris is being washed onto the reefs during ebb tides.

The Government of the Republic of the Marshall Islands (GoRMI) has been allocated grant funds from Pacific Resilience Project II under Pacific Resilience Program of World Bank for Design of New National Disaster Management Office (NDMO) Warehouse and Office Accommodation and Structural Analysis of the Existing NDMO Building. Such grant funds are administered by International Development Association (IDA) and executed by the Republic of Marshall Islands Ministry of Works, Infrastructure and Utilities.

As part of project financing, the Project will be required to comply with the requirements outlined in WB's Environmental and Social Framework (ESF) and, as such, this Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) has been prepared.

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

- The WB ESF, including the ten Environmental and Social Standards (ESSs).
- Relevant national regulations, of Republic of Marshal Islands (RMI).

All E&S instruments will be disclosed in the Centralized Implementation Unit (CIU), Division of International Development Assistance (DIDA) website.

1.2 RATIONALE AND NEED FOR THE PROJECT

The new NDMO Building shall serve as an office and warehousing space for the GoRMI, including the Ministry of Finance (MoF), the National Disaster Management Office (NDMO), and the Division of International Development Assistance (DIDA). It will also include rehabilitation of the immediate environs, on land situated between the existing Supply Office of the Ministry of Finance, Banking and Postal Services (MoFBPS) and the main road in Majuro. The building design is based on best practices for the resilient, inclusive, and sustainable design of public buildings in RMI. Specifically, provision is made for:

- Office personnel, meeting room and warehousing capacity for NDMO.
- Larger office space and meeting room capacity for various Ministry of Finance functions
- Office and Warehouse space for the Supply section of Ministry of Finance Banking and Postal Services (MoFBPS), DIDA and NDMO.
- The building is not intended for general public access.

It is anticipated the new NDMO warehouse and office accommodation Building would provide:

- A long-term base of operations for DIDA.
- Additional warehousing and office space for NDMO
- Additional warehousing space and office space for the Supply section of the MoF.

1.3 OBJECTIVES OF THE ESIA STUDY

The overall objective of this ESIA study is to ensure that environmental and social considerations of the Project are considered during decision making for environmental sustainability. The specific objectives of the ESIA are:

- Identification and assessment of the potential environmental and social impacts of the project activities, (including the different stages i.e. design, construction, operation and routine maintenance).
- Identification of the potential impacts due to the proposed project on the adjacent area such as infrastructure changes, urban planning opportunities, traffic assessments of these impacts etc.
- Identification and mitigation of all potential environmental and social impacts.
- Preparation of an Environmental and Social Management Plan (ESMP) in line with the World Bank Environmental and Social Framework (ESF), and the National Environmental Protection Authority (RMIEPA) requirements, and to ensure that project affected persons are meaningfully consulted and given opportunities to participate in project decision making process to maintain credibility of the Project developers and funders.

1.4 METHODOLOGY ADOPTED FOR THE ESIA STUDY

The ESIA Report has been prepared using an integrated approach, where data and information evaluation, field investigations, consultations among the team of experts, interviews and discussions with relevant stakeholders and affected peoples were undertaken the methodology adopted for the ESIA study is briefly described in the following paragraphs:

Literature Review

The study was initiated with intensive document and literature review on the proposed developments to be undertaken for the new NDMO Building. This consisted of the review of relevant national polices and legislation, World Bank Operational Policies, relevant international conventions and treaties to which the Marshall Islands is a Party, among others.

The legislation and policies reviewed have guided the ESIA study to identify the legal scope of the process and ensure that issues highlighted are given due consideration during the study. For example, policies have described areas to protect such as historical sites. Therefore, special attention was given during the study to watch out for such sites and assess the necessary issues.

The reviewed legislation also highlighted areas to consider during the study, such as the need for community consultation, the need to ensure that women are included. The identified Banks' Policies to be triggered by the proposed project also have assisted in identifying specific issues to consider during the study. In addition to the above, an extensive review was carried out of data from a variety of sources, which is given in list of relevant documents reviewed in the References section.

Site Investigation

As part of field investigations, WAPCOS team of experts undertook site inspections and aerial photography for site analysis and ground truth of the proposed project site. Besides PIU staff undertook a survey of traffic use on the NTA driveway for the ESIA.

Key stakeholder interviews

Consultations and interviews with relevant Government agencies were also conducted, which included the Ministry of Works, Public Infrastructure and Utilities (MWPIU), Ministry of Finance (MoF), National Telecommunications Authority (NTA), the National Environmental Protection Authority (EPA), Majuro Water and Sewage Company (MWSC), Project Implementation Unit (PIU), Central Implementation Unit (CIU), Division of International Development Assistance (DIDA).

1.5 OUTLINE OF THE REPORT

The ESIA Report is structured with the following main chapters:

Chapter-1 gives a background of the assignment along with the objectives and methodology for ESIA study.
Chapter-2 outlines a brief description of the proposed project.
Chapter-3 presents the legal and regulatory framework related to the project
Chapter-4 outlines the baseline status of the project site.
Chapter-5 presents an assessment of environmental and social risks, impacts likely to accrue due to the proposed project and mitigation measures
Chapter-6 presents the Stakeholder engagement plan and Grievance Redressal Mechanism as part of the project.
Chapter-7 delineates a set of measures and activities proposed in Environmental Management Plan. Environmental Monitoring Programme for implementation of critical parameters during project construction, and operation phases has been delineated in this Chapter
Chapter-8 Summarizes the conclusion of the project.

CHAPTER 2
PROJECT DESCRIPTION

2.1 COUNTRY CONTEXT

The Republic of the Marshall Islands (RMI) is one of the world's smallest, most isolated, and vulnerable nations. 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 2 m above sea level) and susceptible to typhoons, storm surges, extreme high tides, flooding and droughts. GoRMI declared a national climate crisis in 2019.

2.2 PROJECT OVERVIEW

The proposed construction of New National Disaster Management Office (NDMO) and office accommodation falls under **Component-3** of the RMI Urban Resilience Project as follows:

- ✓ Detailed engineering designs, construction supervision services, and operations and maintenance plans for a multi-functional resilient building in Majuro that meet(s) the project's agreed design standards and enhance(s) Marshallese cultural identity and
- ✓ 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.

➢ Site Description and Land Tenure

The proposed site is to be leased by the National Telecommunications Authority (NTA), RMI with a sublease to GoRMI for the Project, which is under discussion agreed between NTA and GoRMI (see agreement appended to end of this ESIA as Annexure-7). There are no resettlement and rehabilitation (R&R) issues envisaged. The land is bounded by and adjacent to the main road and the NTA driveway. The site description is shown in Figures 1 to 5.

Figure 1: Aerial view of the site for proposed new NDMO Building

(Source: WAPCOS, 2023)

Figure 2: View from NTA Road

(Source: WAPCOS, 2023)

Figure 3: Coconut Trees (04 nos.) present at site

(Source: WAPCOS, 2023)

Figure 4: Temporary structures (05 nos.) observed at site

(Source: WAPCOS, 2023)

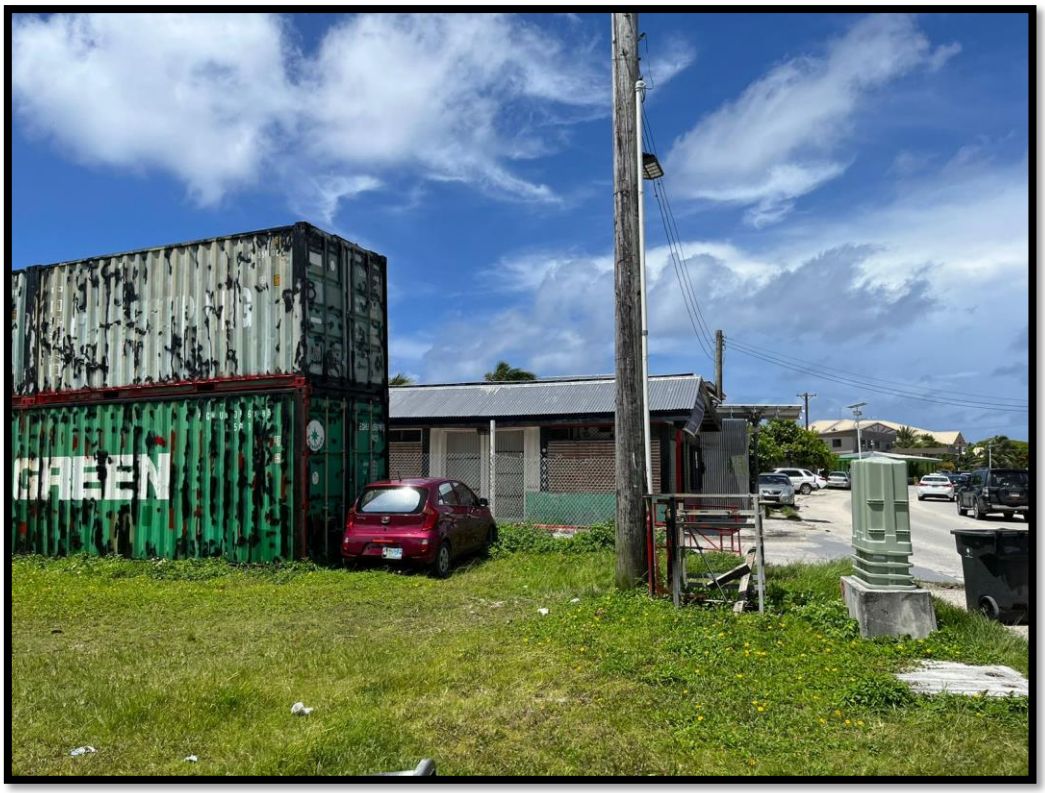


Figure 5: Electric Pole at Site

(Source: WAPCOS, 2023)

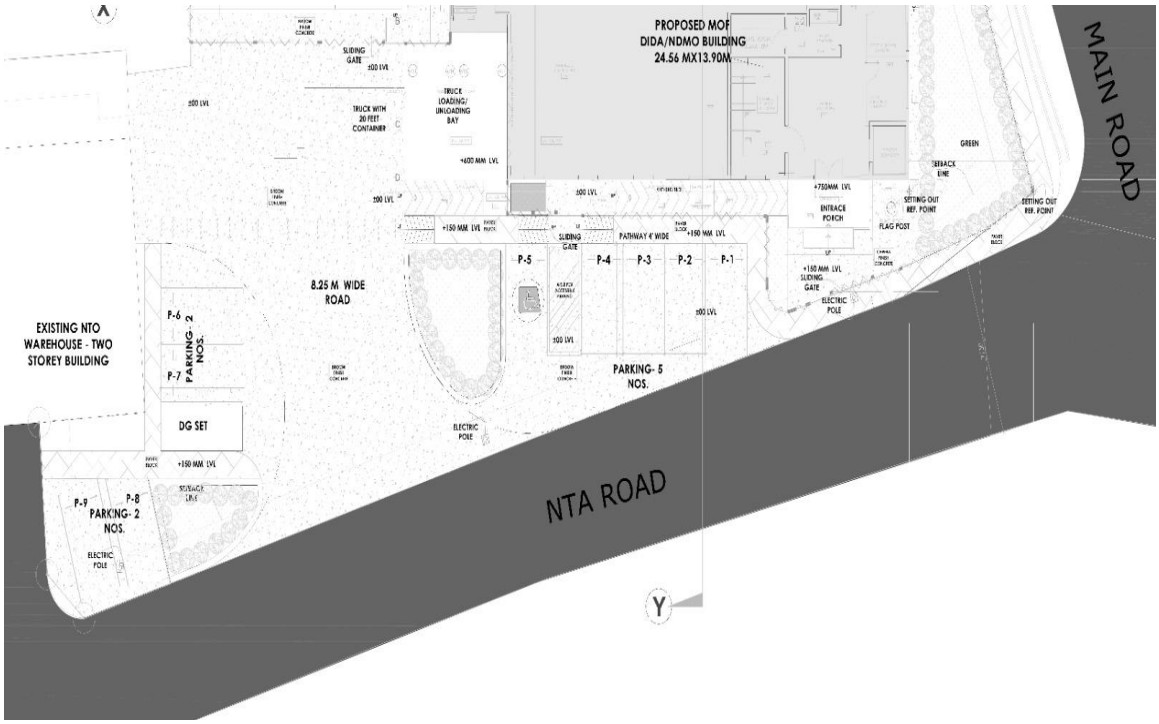
- **Proposed NDMO Building**

The building is proposed to be of Ground plus 2 floors with a service floor at top and the expected number of occupants are 70 people excluding visitors. The proposed car parking numbers are 9 nos. including 1 no. of disabled parking.

The total plot area and the total built-up area of the building are 1393.80 sq.metres and 1245.83 sq. metres respectively. The area chart is presented below. The approved conceptual layout of the building is presented below.

MoF DIDA/NDMO BUILDING - AREA CHART						
PLOT AREA	**0.344**	**acres**	**1393.8**	**sq mt**	**15002.78**	**sqft**
BUILT-UP AREA						
	BUILDING BLOCK	**SERVICE BLOCK (WATER TANK & ESS)**	**TOTAL**			
GROUND FLOOR	367.39	95.00	462.39	sq mt	4977.166	sqft
FIRST FLOOR	388.49		388.49	sq mt	4181.706	sqft
SECOND FLOOR	388.49		388.49	sq mt	4181.706	sqft
LIFT ROOM	6.46		6.46	sq mt	69.53	sqft
TOTAL BUILT-UP			1245.83	sq mt	13410.11	sqft
NOTE:RAMP / LOADING/UNLOADING BAY NOT INCLUDED						

ESS: Electrical Sub-Station



Site Plan

The building has been designed in accordance with the International Building Code Risk Category II with regard to structure and services

The demand load calculation for electricity of the building is 160 KVA. Accordingly, it is proposed Diesel Generator (DG) set for the new NDMO Building shall be of capacity of 225 KVA. The electricity shall be provided by the Marshall Energy Company (MEC) as well the DG sets proposed in the project. The DG set will be used to supply power to the New NDMO buildings during blackouts or insufficient grid supply and is located near the entrance and parking slot no-7.

The Majuro Water and Sewerage Company (MWSC) shall provide the water. Groundwater abstraction is not proposed. During the construction phase, water will be provided by the MWSC before use such as curing of the concrete. The wastewater generated by the occupants of the building will be connected to the sewerage network of the MWSC.

Segregation of solid wastes is proposed in the building for plastic waste, metal wastes and general wastes.

Natural ventilation is proposed in the NDMO building. Glazed glass are proposed in the windows. Energy efficient rated lighting has been proposed in the building. Fire Safety Alarm System i.e. Sprinkler based system is proposed in the building.

Rooftop solar and rain water harvesting options have not been included due to operational and maintenance issues associated with operating such initiatives in RMI. However, provision has been kept for future solar installation if suitable options become available. The Roofing is proposed to be of Aluminium.

The green belt is proposed in the vicinity of the building i.e. nearby main road within the plot boundary and the area is.177.16 sq. metres Small shrubs are proposed to be planted.

The storm water drainage plan is proposed in the building design of the project.

The traffic count was carried out on the NTA road on 16.11.2023 (01 Day) between 16.15 hrs -17.15 hrs and the results as summarized as below:-

Number of cars: 84
Number of light trucks: 2
Number of Heavy Goods Vehicle (HGV): 0
Number of pedestrians: 0
On an average the NTA road services approximately 3000 customers every month visiting the NTA office.

2.3 PROJECT LOCATION

The proposed building is located 12.40 kms away from the Amata Kabua International Airport, Majuro, RMI and 2.30 kms away from the Ports Authority Office, Majuro.

The proposed site for new NDMO building is located adjacent to the main road and approximately 50 metres from the ocean. There are no water bodies present in the project location. The co-ordinates of the plot are 7.092340, 171.380713. The aerial view of the drone survey carried out by WAPCOS is shown in Figure 6.

Figure-6: Aerial view of the Proposed Site

(Source: WAPCOS, 2023)

2.4 PROJECT AREA OF INFLUENCE

As described above the proposed project area of new NDMO building is located within NTA site boundary located adjacent to the main road. In general, the Project "Area of Influence" (AOI) of physical works includes the following:

- Contractors yards, lay down areas, accommodation facilities and any other works related facilities within NTA site boundary.
- Adjacent roads where there is movement of construction vehicle/material trucks
- A radius of 100 m is considered as the AOI for potential noise impact.

Based on the site inspection, it is observed that there is no residential area or any other sensitive area within 100 m of the project boundary. Hence, it is concluded that there are no sensitive area within the project AOI.

The project vicinity map is enclosed as Figure-7.

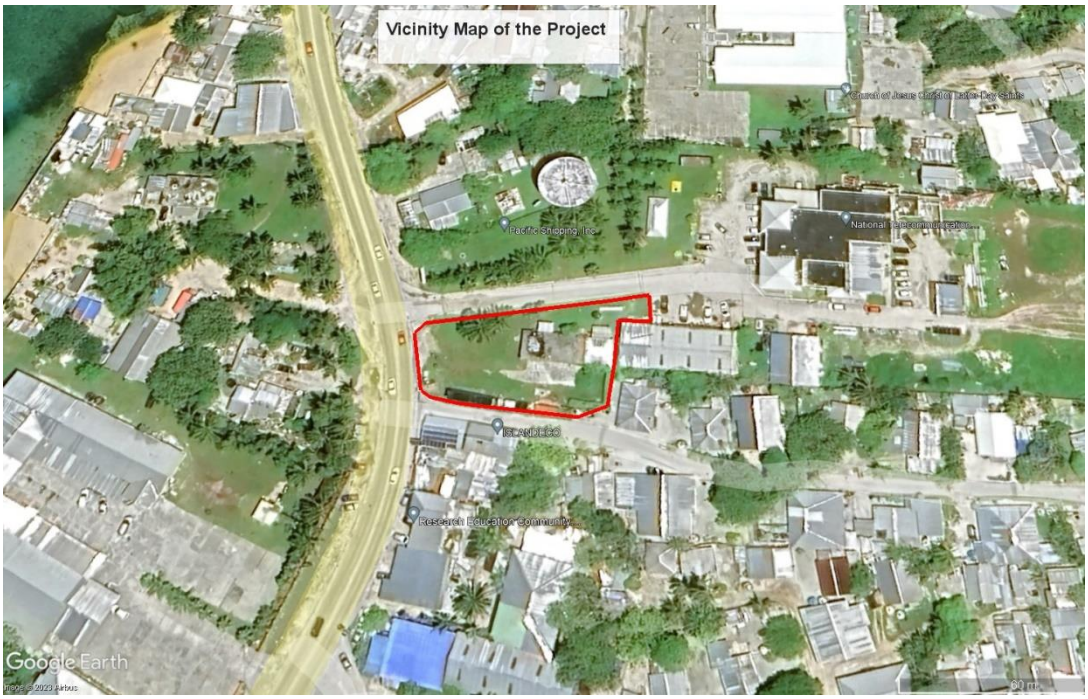


Figure-7: Vicinity Map of the Proposed Site

(Source: Google Earth)

2.5 PROJECT COMPONENTS

As per the TOR, the new NDMO building has been designed keeping in functional requirement of the building for MoF, DIDA and NDMO i.e. for both office space and warehouse in the same building.

The proposed building is located near the NTA road driveway and is proposed to have Ground plus Two Floors with an additional service floor at the top. The building site plan includes car parking space for 9 cars including 1 disabled parking. The design features for universal accessibility, i.e., ramps/ stairs near the main entrance of the building, provision for elevator, accessible doors/ bathrooms on every floor, counter heights, and emergency evacuation routes. It is expected to accommodate nearly 70 occupants from MOF, DIDA and NDMO excluding the visitors.

2.5.1 Implementation Arrangements

Construction will be undertaken under the RMI URP Project which is implemented by the MPWIU through a Project Implementation Unit (PIU), established within the MPWIU and include a Project Manager, Project Engineer, Project Officer, and relevant technical consultants including a dedicated RMI URP environmental and Social Officer whose role will relate to environmental and social supervision of project construction works. Support for Fiduciary and E&S Risk Management is provided by the Centralized Implementation Unit (CIU). Figure 8 illustrates implementation arrangements.

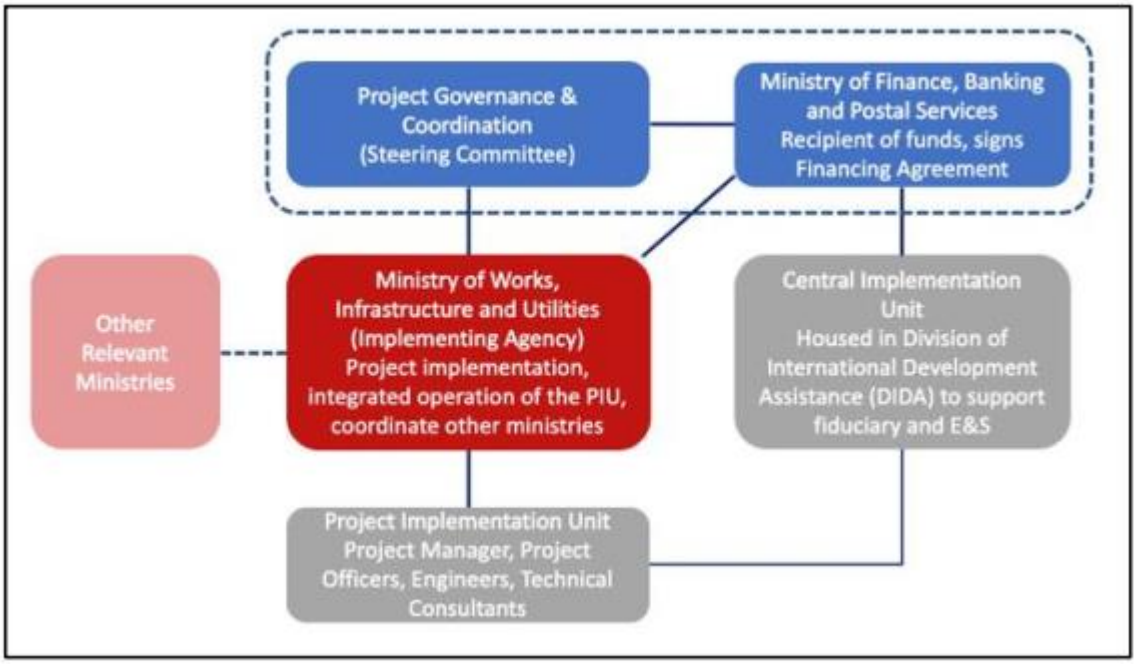


Figure-8: Implementation Arrangements for the Project

(Source: MURP ESMF, 2022)

2.6 SOURCES OF MATERIALS

The building is proposed to be Reinforced Cement Concrete (RCC) Building with CMU blocks. For the project, it is proposed to import suitable aggregates for construction of the new NDMO Building.

CHAPTER 3
LEGISLATIVE AND REGULATORY FRAMEWORK

3.1 LEGISLATIVE AND REGULATORY FRAMEWORK

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

3.1.1 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.

3.1.2 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.

3.1.3 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 National Environmental Protection Act (NEPA), 1984

The National Environmental Protection Act (NEPA), 1984 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 to:

- ✓ Study the impact of human activity including redistribution, cultural change,
- ✓ Exploitation of resources and technological advances on the environment
- ✓ Restore and maintain the quality of the environment
- ✓ 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
- ✓ 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
- ✓ Regulate individual and collective human activity in such manner as will ensure to the people safe, healthful, productive, and aesthetically and culturally pleasing surroundings 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 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 has a set of 8 regulations for protection of surface & 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 regulations are:

- ✓ Earthmoving Regulation 1988 (with amendments in 1994 and 1998)
- ✓ Solid Waste Regulations 1989
- ✓ Toilet Facilities and Sewage Disposal Regulation 1990
- ✓ Marine Water Quality Regulation1992

- ✓ Public Water Supply Regulation 1994
- ✓ Environmental Impact Assessment Regulation 1994
- ✓ Ozone Layer Protection Regulation 2004
- ✓ Pesticides and Persistent Organic Pollutants Regulation 2004.

The two regulations of specific relevance to the Project are the EIA Regulation, 1994 and the Earthmoving Regulation, 1984. The Key considerations of each regulation are summarized in the following paragraphs:

3.1.5 Environmental Impact Assessment Regulation, 1994

Two step Assessment to determine level of assessment required
Step 1: Initial Evaluation -Does the activity have the potential for significant effect on environment Preliminary proposal is initial evaluation.
Step 2: EIA for proposals with potential significant impacts, EIA reviews and forms the basis to an approved or reject a project proposal. It includes extensive and inclusive consultations with all stakeholders.

The EIA Report to follow the format and content, as detailed in Part IV of the regulation, unless otherwise directed by the Authority. The proponent shall remain subject to regulatory and permitting requirements pursuant to NEPA, Coast Conservation Act, and the Historic Preservation Act. Earthmoving Regulation, 1988, 1994, 1998

All earthmoving activities require earthmoving permit

- ✓ Provide permits to persons engaged in earthmoving activities to shell design, implement and maintain erosion sedimentation control measures which prevent accelerated erosion and sedimentation.
- ✓ Earthmoving activities subject to permit requirements pursuant to NEPA , Coast
- ✓ Conservation Act and the Historic Preservation Act and Tourism Act, 1991.
- ✓ Earthmoving Application includes initial environmental assessment report reviewed by NEPA

Applications for approval to undertake development works are to be made to the RMIEPA, and are reviewed through a Preliminary Environmental Assessment (PEA) process which are as follows:
Step 1: This 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: This is either the issuance of an Earthmoving Permit with or without conditions 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.

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 comply with the conditions outlined in the approval.

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

- ✓ Direct environmental effects and their significance
- ✓ Indirect environmental effects and their significance
- ✓ A description of the relationship between short-term uses of the environment and the maintenance an enhancement of long-term productivity
- ✓ Consideration of cumulative environmental impacts
- ✓ Natural or depletable resources requirements and the potential for their conservation
- ✓ Urban quality, scenic quality, historic and cultural resources, and the design of the built environment
- ✓ Impact on following matters (Regulation 23):
- ✓ population and human uses of the land
- ✓ Alterations to ecological systems
- ✓ Projected pollution of the environment
- ✓ Means to mitigate adverse environmental impacts
- ✓ Description of any unavoidable adverse environmental impacts
- ✓ An analysis of the costs and benefits that may result from the proposed development activity and
- ✓ Identification of any irreversible or irretrievable commitments of resources required for the proposed development activity.

The Earthmoving Regulations require developers to 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 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
- ✓ 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.

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 aspects to be included in the Erosion and Sediment Control Plan:

- ✓ Topographic or hydrographic features, or both, of the project area
- ✓ Types, depth, slope and area of the soils, coral and reef
- ✓ Original state of the area as to plant and animal life and ecosystem functioning
- ✓ Whether any living coral reef, sea grass bed, mangrove, freshwater lake, sandy beach,
- ✓ Other valuable ecosystem may be affected by the earthmoving
- ✓ Proposed alteration to the area
- ✓ Amount of runoff from the project area
- ✓ Staging of earthmoving activities
- ✓ Temporary control measures and facilities for use during earthmoving activity
- ✓ Permanent control measures and facilities for long-term protection
- ✓ Maintenance program for the control facilities including disposal of materials
- ✓ Removed from the control facilities or project area
- ✓ Whether a designated coastal area of special concern is in the vicinity
- ✓ Whether cultural a resources are in the vicinity
- ✓ Whether designated tourism or fishery resources are in the vicinity; and
- ✓ Presence and vulnerability of nearby beaches to erosion.

3.1.6 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
- ✓ Regulation and control of the construction of buildings and the prevention of overcrowding of land.

The 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).

3.1.7 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 bonafide 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, and are listed as below:

- ✓ 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

The Regulations Governing Land Modification Activities require every developer; private or corporate is relevant to the project. As per the regulation of the developer has 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 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 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

3.1.8 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 etc.

Work on developing a National Building Code commenced in late 2016 keeping 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 and this work was culminated in "The National Building Code of the Republic of the Marshall Islands 2021 Edition". The Code is being formatted to suit RMI's needs and international requirements and incorporate requirements for RMI in terms of standards for resilience and flood protection relating to climate change. Implementation of the Code is being addressed under the World Bank RMI Urban Resilience Project. The Code has been followed in the design of new NDMO building.

3.1.9 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.

3.1.10 World Bank Environmental and Social Framework

As a condition of WB financing for the Project, the MPWIU is 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.
- ✓ ESS10: Stakeholder Engagement.

The Project has been assessed as having overall no more than minor environmental and social risks.

3.1.11 World Bank General Environmental, Health and 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.

3.1.12 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 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 as given in 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 air-shed.

Table-1: WHO Ambient Air Quality Guidelines (WHO, 2005)

Parameter	Averaging Period	Guideline Period in Ug/m^2

Parameter	Averaging Period	Guideline Period in Ug/m^2
Sulfur dioxide (SO_2)	24-hour 10 minute	125 (Interim target-1) 50 (Interim target-2) 20 (guideline) 500 (guideline)
Nitrogen dioxide (NO_2)	1-year 1 hour	40 (guideline) 200 (guideline)
Particular Matter PM_{10}	24-hour 1-year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline) 150 (Interim target-1) 100 (Interim target-2) 75 (Interim target-3) 50 (guideline)
Particular Matter $PM_{2.5}$	1-year 24-hour	35 (Interim target-1) 25 (Interim target-2) 15 (Interim target-3) 10 (guideline) 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*

There is no baseline air quality data for Majuro, nor are there air quality standards. However, Majuro Atoll is subject to relatively high wind (sitting in the latitudes of the Trade Winds) and is a narrow strip of land so there is no chance for localized air quality hotspots and ambient air quality is high.

3.1.13 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

The approach adopted for the Project is that noise impacts should nominally not exceed the levels presented in **Table 2**, or result in an increase in background levels at the nearest receptor location off-site such that complaints are received.

3.1.14 Waste Management

Table 2: WHO noise level guidelines (WHO, 1999)

Receptor	One Hour LAeq (dBA)	
	Daytime (07:00-22:00)	Nighttime (22:00 - 07:00)
Residential, industrial, education	**55**	**45**
Industrial/commercial	**70**	**70**

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.

3.1.15 Worker Health and Safety

The fundamental premise for Occupational Health and Safety (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:

- Eliminating the hazard by removing the activity from the work process.
- Controlling the hazard at its source through use of engineering controls.
- Minimizing the hazard through design of safe work systems and administrative or institutional control measures.
- 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.

3.1.16 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.

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.

3.1.17 Construction Materials Extraction Guideline

The WB construction materials extraction guidance document 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.

See commentary below in relation to aggregate use associated with the Project.

3.1.18 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.

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.

3.1.19 World Bank Good Practice Notes

World Bank Good Practice Notes 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.
- "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 ESIA.

3.2 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. The gaps identified between WB requirements and current GoRMI regulations are given in Table- 3.

Table-3: Gaps identified in applicable WB-ESF instruments vs Existing RMI legislative and regulatory instruments (from RMI URP ESMF)

WB Environmental and Social Standard	*World Bank ESF Instrument*	*Relevant RMI Legislation*	*Equivalence*	*Gap Filling*
ESS1	Environmental and Social Impact Assessment (ESIA)	• EIA Regulations 1994 • Earthmoving Regulations 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) Environmental and Social Management Plan (ESMP) Environmental and Social Management Framework (ESMF)	• EIA Regulations 1994 • Earthmoving Regulations 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.	
ESS2	Occupational Health and Safety Plan	-	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) Labor Grievance Redress Mechanism	-	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

	(LGRM)			
ESS3	Resource Use Efficiency Plans	• EIA Regulations 1994 • Earthmoving Regulations 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 Regulations 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. **(Refer Annexure 7 on Emergency Management and Response)**
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.
ESS10	Stakeholder Engagement Plan	EIA Regulations 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 to be included in the Project SEP to comply with ESS10, and national legislation on public consultation, project information disclosure and grievance mechanisms

CHAPTER 4
DESCRIPTION OF ENVIRONMENTAL AND SOCIAL BASELINE

4.1 GENERAL

This section provides an overview of the Baseline information of the project site and environmental setting of Majuro where project activities will be undertaken under Component 3. The location map of Majuro Atoll is presented below in Figure-9.

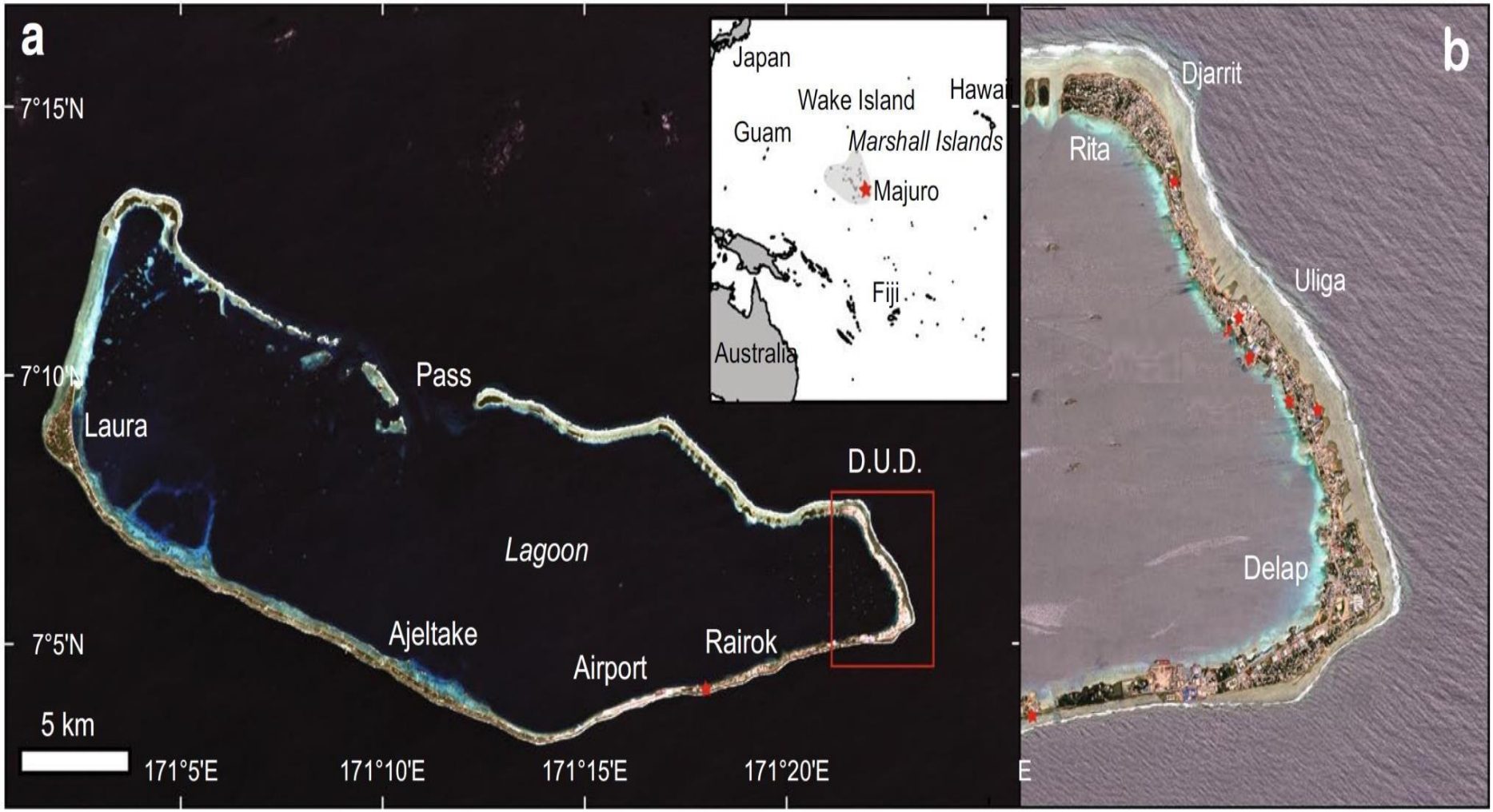


Figure 9: Location Plan: a. Majuro Atoll; b. D-U-D area

4.2 BASELINE INFORMATION OF PROJECT SITE

The proposed NDMO building is located adjacent to the existing NTA office, the terrrain is flat with no undulations with soil type as sandy or gravel sand. Storm water drainage is not an issue in the area considering the road side drain and the highly pervious nature of the ground soil. There are no resettlement and rehabilitation (R&R) issues envisaged.

Existing water pipeline:

The proposed building site is approximately 5 feet away from the existing water line. Therefore, the building can be connected with the main water supply line and an additional requirement for extending the pipeline to has been proposed in the design of New NDMO building.

4.3 ENVIRONMENT ASPECTS

4.3.1 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 identified protected major areas in Majuro are depicted in Figure-11.

The areas are not relevant to the Project.

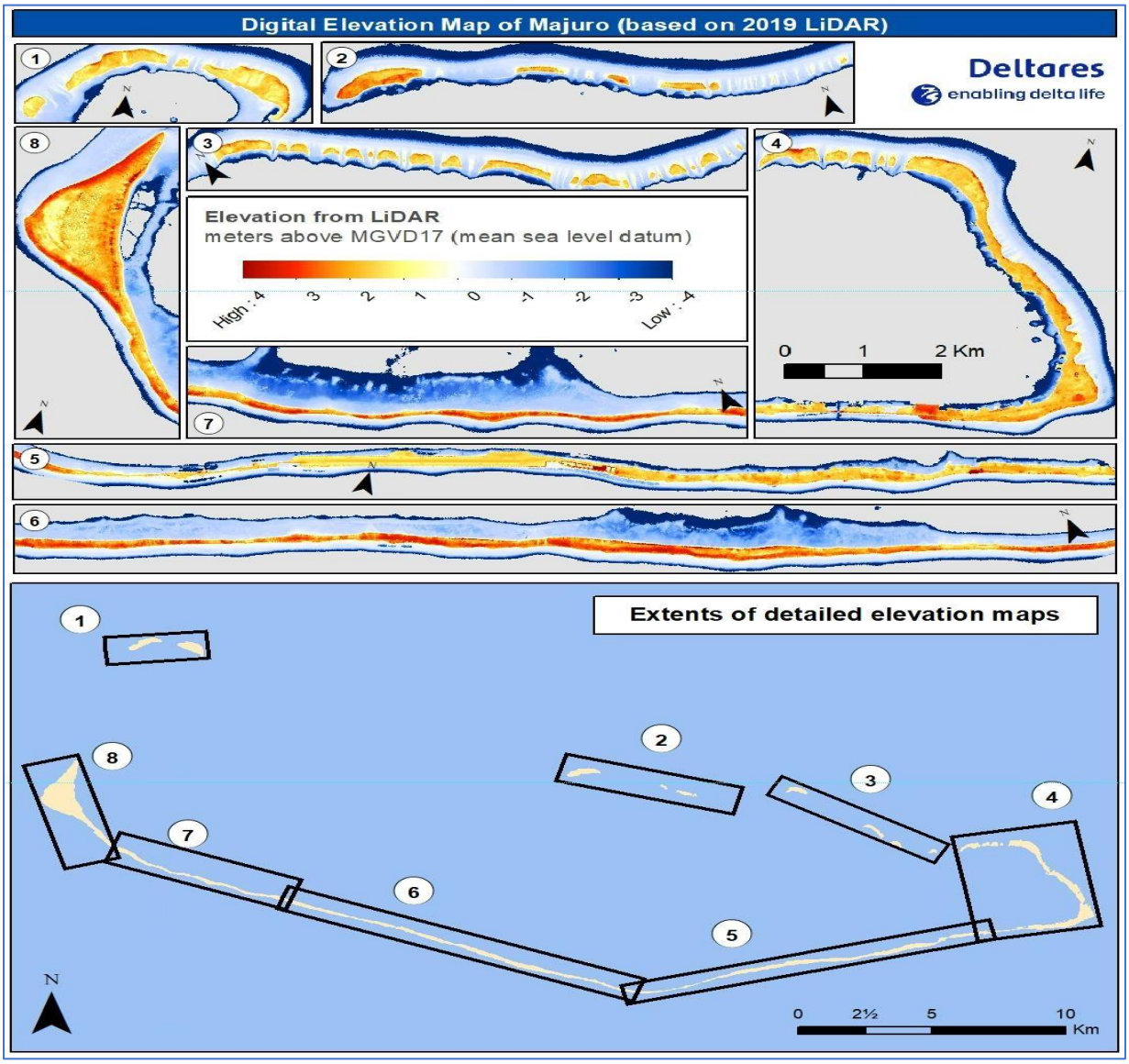


Figure-10: Top: LiDAR data set for all of Majuro Atoll. Bottom: Extent of detailed elevation maps

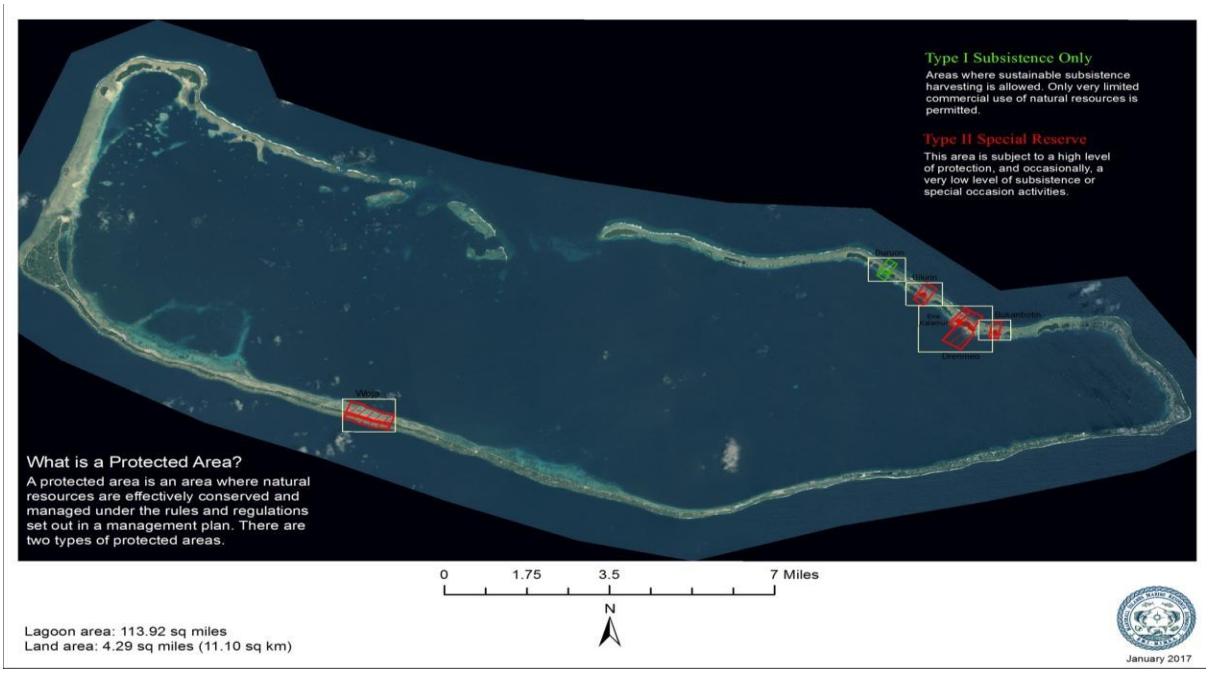


Figure 11: Identified Protected Areas in Majuro

(Source: Marshall Islands Marine Resources Authority (MIMRA))

4.3.2 Coastal and Marine Area

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).

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.
The Project will not discharge directly to the coastal marine area.

4.3.3 Birds

As per the report of Bird Life International Suva, Fiji, (2007) 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 Chuuk, Pohnpei, and Kosrae in the Federated States of Micronesia.

There are six Important Bird Areas (IBAs) identified in the Marshall Islands. These include one in the "Northeast Islets, Majuro Atoll" which is shown in Figure-12.

This area is not relevant to the Project.

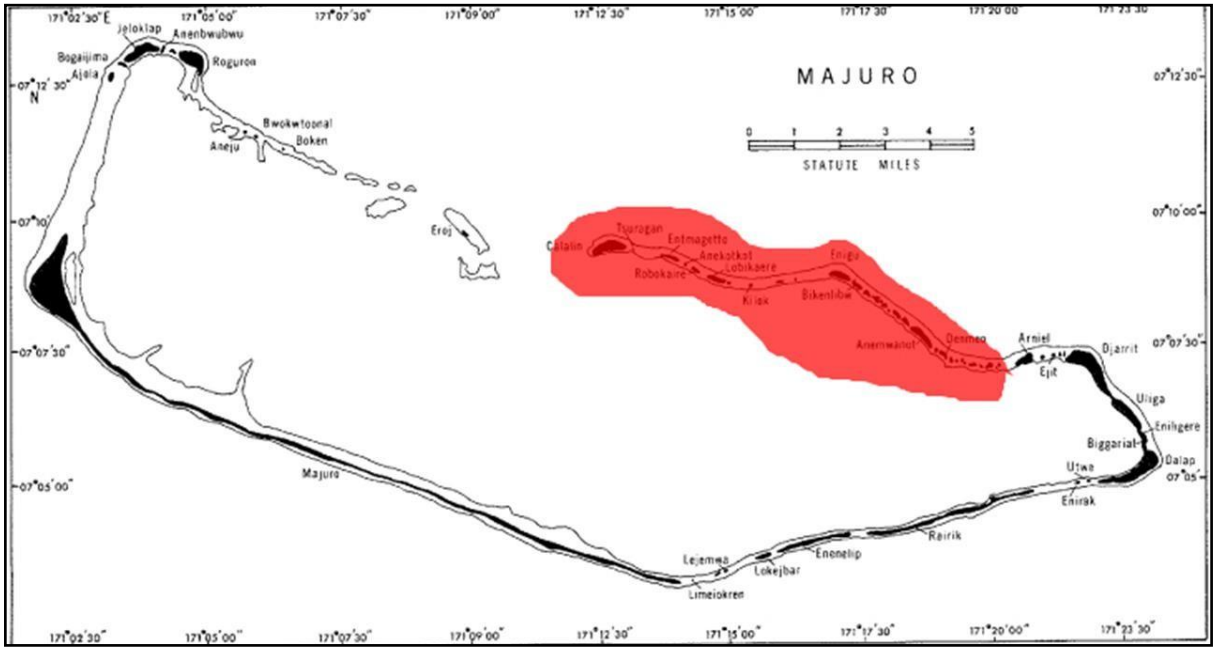


Figure-12: Identified Important Bird Area (IBA) in Majuro

4.4 SOCIO-ECONOMIC ASPECTS

4.4.1 Population

RMI is made up of 29 coral atolls and five isolated islands (only 24 of which are inhabited) with a total land area of 181 km² and an Exclusive Economic Zone (EEZ) of about 2,131,000 km², making it the 19th largest EEZ in the world. About half of its EEZ borders international waters to the north and the other half borders three other nations (Federated States of Micronesia, Nauru and Republic of Kiribati) to the south. The population of RMI was estimated at 42,523 in 2021 of which the two largest urban centers, Majuro (the nation's capital) and Ebeye, account for about 23,182 and 8,416, respectively, while the remaining 26 percent of the population reside in rural neighboring islands. *(Source: RMI ESMP PROPER Project, October 2022 based on RMI 2021 Census data)*.

4.4.2 Economy

RMI is an upper-middle-income country with Gross National Income (GNI) of US$4,940 per capita in 2020. Over the past 15 years, the real Gross Domestic Product (GDP) has grown by a modest 1.5 percent on average per year, with fluctuations in growth related to changes in the construction, public service, and fisheries sectors. The real GDP, however, declined in 2020 by 2.2%. Except for

fisheries, the country has limited natural resources. The contribution of fisheries sector to GDP in 2019 was estimated at 15 percent (*Source: 1. RMI ESMP PROPER Project, October 2022, 2. World Bank, 2021 RMI Country Economic Memorandum and Public Expenditure Review).*

Key industries include production of copra and craft items, tuna processing, construction, and tourism. RMI's private sector is responsible for the delivery of most core goods and services. The public sector accounts for around 21.5% percent of GDP.

The COVID-19 pandemic led to a decline in economic returns, contracted domestic activity and productivity, and expected fiscal shocks have been limited by revenue from the fisheries sector and grants from Development Partners13. The COVID-19 pandemic is not anticipated to have long-term negative effects on the fisheries sector, however in the immediate term, the decline from tuna export and related vessel services has driven the economy into recession.

The poverty headcount in RMI is estimated at 7.2% of the total population based on the 2019-2020 Household Income and Expenditure Survey. About 70 % of poor households live in rural areas with the remaining 30% spread evenly between Majuro and Ebeye. The poverty rate is consequently lowest in Majuro (2.3% of individuals) and highest in rural areas (21.2 percent of individuals).

4.4.3 Gender Issues

The RMI Government has developed a National Gender Mainstreaming Policy to 'guide the process of developing laws, policies, procedures and practices that will address the needs, priorities and aspirations of all women and men and effectively eliminate all forms of discrimination and inequality'. The policy notes that 'Gender equality is enshrined and included in traditional and cultural practices of the Marshallese people'. The policy and other related documents include an overview of gender issues in the RMI. These include:

- **Gender-based violence:** The National Gender Mainstreaming Policy notes that 'Gender-based violence is a challenge that is complicated by some social practices, some cultural beliefs, and a lack of institutional support and agencies to provide temporary relief or shelter.' While up-to- date, reliable GBV data is lacking, a Family Health and Safety Survey conducted in 2014 revealed that the prevalence of GBV was high
- **Health:** Health services for sexual and reproductive health are available, however, access issues remain, particularly in rural areas and outer islands[21]. The rate of teenage pregnancy in RMI is high, accounting for over 20% of live births[22]. As explained in the 'Stocktake of the Gender Mainstreaming Capacity of Pacific Island Governments', teenage pregnancies can inhibit young women from pursuing further education and it places added burden on extended families to

financially support young mothers.

- **Education:** The gender balance at primary and secondary level education is fairly equal, although some concern has been raised regarding girls dropping out of secondary and tertiary education due to pregnancy and socio-cultural expectations. Financial status appears to influence educational attainment among women, with completion of secondary education being 5% from the poorest households and 22% from the wealthiest households.
- **Employment**: The National Gender Mainstreaming Policy states that 'women's economic empowerment remains a key challenge, as women continue to face limited job opportunities and remain underrepresented in management positions'. For example, the workforce participation rates for men and women as per the 2011 census were 65% and 35%, respectively. The policy document noted that while there is a growing number of women in the public service, men dominate most senior positions. There is little or no data on gender issues related to coastal fisheries despite women's considerable contribution to the fisheries sector in the country and region, and the need for a gender and fisheries assessment in RMI was identified by the Pacific-European Union Marine Partnership.

The fisheries industry has the potential to be a large employer of women.

Decision-making. The policy document notes that **'**leadership positions are still thought of as men's roles, and this view is reflected in all aspects of political, civic and family functions'. Women's representation in the Marshallese parliament and other high-level decision-making and management positions is low. In 2016, the RMI elected the first female president, Hilda Heine.

4.4.4 Land Tenure

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 / chief 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) 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).

4.4.5 Settlement Patterns

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. 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)

4.4.6 Vulnerable Groups

Livelihoods in RMI are already vulnerable because of low human capital development, an under-diversified economy, and heavy reliance on ecosystem services. Climate change poses threats to livelihoods, especially agricultural production and subsistence, and commercial fishing. The depletion of these opportunities undermines human security and the future resilience of the Marshallese, particularly given few alternatives currently exist.

Loss of livelihoods puts more pressure on social structures and norms of sharing and cooperation and acts as a migration push factor. Finally, the loss of economic

opportunities and government revenue from fisheries also has an impact on government's ability to deliver vital services, like healthcare and education, and provide public sector jobs.

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. *(Source: MURP ESMF, January 2022).*

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 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.

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 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.

4.4.7 Agricultural Land Use

Laura is the only area of Majuro where large scale agricultural activity is undertaken. Deltares (2021) undertook an agriculture risk assessment of Laura, and the results are summarized in Figure 13. 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-13: Agricultural areas in Laura

4.4.8 Potable Water Supply

Majuro's potable water supply system is relatively complex, with multiple sources and treatment plants as outlined in Figure-14.

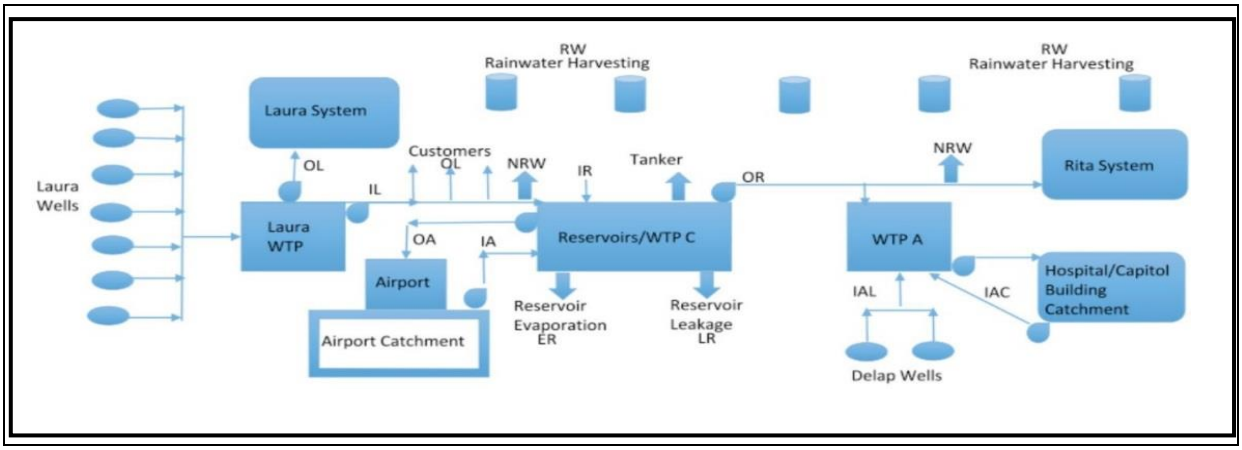


Figure-14: Schematic of Majuro Water Supply

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

- Airport System:
- Laura groundwater lens:
- Hospital System:

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 bottled water for drinking water. There are at least eight commercial drinking water suppliers providing bottled drinking water.

4.4.9 Natural Hazards and Climate Change

RMI faces a risk of typhoons, and the low-lying islands are susceptible to coastal floods and tsunamis whilst extreme heat and drought conditions have recently affected the islands. The climate risk in RMI is high due to the combination of economic and physical vulnerability and the islands' proneness to natural hazards which is further exacerbated by climate change and variability.(Source: MURP ESMF, January 2022)

RMI is facing increasing exposure and extreme vulnerability to the impacts of climate-change induced natural hazards such as sea level rise, saline intrusion, floods, and recently heat waves and droughts. These are further exacerbated by very high population density, particularly in Ebeye and Majuro. As a result of climate change, biodiversity and the natural environment of RMI would face extreme pressure, with potential loss of some fish, coral, bird, and terrestrial species in the event of no effective conservation measures. The necessary design considerations for natural hazards have been taken care in design of new NDMO Building.

Healthy coral reefs, seagrass beds, mangroves and coastal wetland habitats provide a vital role in climate resilience and adaptation by offering protection from increasing threats from sea level rise, floods and storm events, and help mitigate climate change through carbon sequestration.

CHAPTER 5
ENVIRONMENTAL AND SOCIAL IMPACTS

5.1 GENERAL

Environmental and social impacts can potentially occur at any of the following stages of project implementation:

- Construction phase
- Operation phase
- Post-Construction phase

This is a one-off building development and no associated cumulative impacts have been identified.

5.2 IMPACTS DURING PROJECT CONSTRUCTION PHASE

5.2.1 Land Environment

a) Construction and Demolition Waste

The Construction and demolition waste includes debris, concrete (often recycled and reused at the site), steel and other metals, pallets, packaging and paper products, etc. Excess earth also needs to be properly disposed ofduring the construction phase, top soil will be disturbed resulting in the generation of some clean-fill spoil materials, which shall be disposed at designated sites to be selected by the Contractor.

b) Municipal Solid Waste

The Municipal Solid Waste generated during construction will include domestic wastes like food leftovers, vegetable peels, plastic, house sweepings, clothes, ash, etc. and commercial wastes like paper, cardboard, plastic etc.

c) Hazardous Waste

Hazardous wastes from construction activities include centering oil, formwork oil, tar and tar products (bitumen, felt, waterproofing compounds, etc.), wood dust from treated wood, lead containing products, chemical admixtures, sealants, adhesive solvents. Hazardous wastes likely to be generated during construction phase are listed as below:

- Fuels and Heating oils and other volatile / flammable liquids such as coolants, grease etc.
- Tar and Tar products (bitumen, felt, water proofing compounds etc.)
- Chemicals, admixtures, sealants, adhesives solvents etc.
- Paints, pigments, dyes and primers
- Tarpaulin
- Plastics, Acrylics, Silica, PVC
- Various types of Batteries and tubelights

- Transformers, capacitors, switchgear, Lead Cable, Oil filled/ gel filled cables

5.2.2 Impacts on Air Environment

Proposed construction activities of new NDMO Building are expected to result in not more than 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 have the potential to cause a nuisance for neighboring property owners and can create a hazard to road users. Monitoring and implementation of measures to manage dust generation is presented in the ESMP.

a) Fugitive Emissions

The ambient air quality levels at present in Majuro are assumed to be within the stipulated limits as per WHO Guidelines and ambient air quality is high as a consequence of the geography of Majuro Atoll. It is anticipated that there will be no more than minor change in ambient air quality levels during the construction phase. Potential pollutants include Suspended Particulate Matter (SPM) or dust, vehicular movement-derived pollutants such as Nitrogen Oxides (NOx) Carbon Monoxides (CO) and Hydro Carbon (HC) particualtes, but anticipated levels will not be significantly different to ambient levels.

b) Construction Equipments

The combustion of diesel in various construction equipment could be one of the possible sources of incremental air pollution during the construction phase. The major pollutant likely to be emitted due to operation of various construction equipment will be Sulphur Dioxide (SO2), but incremental concentrations are expected to be marginal. Thus, operation of construction equipment is not expected to have more than minor impact on the ambient air quality as a result of the proposed project.

c) Air Pollution Control due to DG sets

The operation of Diesel Generator (DG) sets could lead to air pollution due to combustion of fuel, but use of a single 225 KVA capacity generator is unlikely to cause more than minor increase in air pollutants.

5.2.3 Impacts on Noise Environment

The major sources of noise during construction phase are due to operation of various construction equipment. The average noise levels generated by major construction equipment are given in Table-4.

Table-4: Average noise levels generated by the operation of various construction equipments

Equipment	Noise level [dB(A)]
Transit mixer	75
Dumpers	75
Generators	85
Batching plant	90

Modeling studies were conducted to assess the increase in noise level due to operation of various construction equipment, and the results are given in Table-5.

Table-5: Predicted noise levels due to the operation of construction equipment

Distance (m)	Ambient noise level (dB(A))	Increase in noise level due to construction activities (dB(A))	Noise level due to construction activities (dB(A))	Increase in ambient noise level due to construction activities (dB(A))
30	45	70	70	25
50	45	66	66	21
100	45	60	60	15
200	45	54	55	10
500	45	46	49	4
1000	45	36	46	1
1500	45	36	45.5	0.5
2000	45	34	45	-

From the above table, it is clear that at a distance of 100 m and 200 m from the construction site, the increase in noise levels will be about 10 dB(A) and 15 dB(A) respectively. The nearest residential areas are at a distance of about 500 m from the proposed project site. Hence, it is anticipated that no more than minor adverse impacts will arise due to noise levels in the proposed project area.

5.2.4 Impacts on Terrestrial Flora

A) Ecologically Sensitive Areas

There are no notified ecological sensitive locations, migratory paths, sanctuaries etc. within the project area and at a 1 km radius of the project boundary. Thus, no impacts on Ecologically Sensitive Areas are anticipated due to the proposed project.

b) Rare, Endangered and Threatened Species

There are no presence of any endangered terrestrial flora & fauna in the project area. hence there shall be no impacts

5.2.5 Aquatic Ecology

The project area does not have any water body. The major water body nearest to the project areas is the ocean water. Thus, no impacts on water quality or aquatic ecosystem including fisheries are anticipated.

5.2.6 Impacts on Public Health

For construction works it is understood the contractor will appoint local workers who are resident of Marshall Islands and hence no labour camp will be required. Therefore there no significant impacts on Public Health are anticipated fromteh Project.

5.2.7 Risks during Construction Phase

a) Impacts from trenching Activities to workers and pedestrians

The quantities of earth excavated for conveyance systems depend on size, depth, and type of construction. Approximately 1600 m3 excavation is required for construction. Construction will use the “cut-and-cover” method, where a length of trench is excavated, the foundation laid and the trench is backfilled with material excavated from the trench, if suitable, or with clean imported materials. Cut-and-cover construction typically involves excavations requiring a support system (e.g., sheeting and shoring or construction corridor. After excavation, the area would be restored to its previous condition (e.g., paved areas would be repaved, and landscaped areas would be replanted).

b) Safety of Workers

During construction phase, there could be accidents at site due human error, improper operation, lack of awareness etc. A set of mitigation measure are suggested for reducing the occurrence of accidents and related aspects.

For reduction in workers accidents and hazards the project proponent will develop and commit the Contractors to Site Occupational Health and Safety rules.

c) Spillage of Oils and Fuels

The spillage of oils and fuels needs to be properly handled, otherwise, it can lead to water and land pollution.

5.2.8 Impacts on Socio-economic Environment

Potential social impacts beyond construction waste, i.e., economic effects on households/businesses, resettlement needs, and public safety concerns during demolition activities will be limited by the fact that the works are constrained to an isolated block of land adjacent to the main road and have been designed so as not to affect any third parties whatsoever.

5.3 IMPACTS DURING PROJECT OPERATION PHASE (POST-CONSTRUCTION IMPACTS)

5.3.1 Solid Waste Generation

Municipal solid waste is expected to be generated during post-construction.

5.3.2 Impacts due to Liquid Wastes

The building during the project operation phase will be used for office purpose and the sewage shall be generated due to use by the employees, visitors, service providers, etc.

5.3.3 Impacts on Noise Environment

The major source of noise during project operation phase will be vehicle operation or DG set operation in the event of power failure.

5.3.4 Impacts on Air Environment

The major source of air pollution during project operation phase will be DG set operation in the event of power failure.

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CHAPTER 6
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

6.1 GENERAL

The mitigation measures to be adopted in different phase for the implementation of NDMO Building are described below:

Table-6.1: Risk Mitigation Measures

Project Phase	Mitigation Measures
Design Phase Measures to ensure that design works take account of potential areas of E&S risk.	Detailed engineering designs for construction of New NDMO building and office accommodation.
Construction Phase Measures to ensure that construction activities take account of potential areas of E&S risk, with particular focus on Contractor management.	Contractor to prepare C-ESMP. Contracting and supervision of civil works for strengthening, upgrading and construction of buildings.
Post Construction Phase Measures to control contaminants from operational surfaces Measures to control new pathways for contaminants, including refuse (e.g. trash, plastic bottles / bags, etc.) to enter water bodies	Regularly maintain and clear drainage channels, culverts and stormwater control features to be installed as part of construction phase (e.g. catch pits), to prolong life of infrastructure

6.1.1 Design Phase

The details of activities along with risk and their mitigation measures in Design Phase of the project are given in Table-6.1

Table-6.2: Design Phase - NDMO Building

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
Sign to incorporate resilience and resource efficiency	Lack of resilient building design	▪ Inefficient use of resources (aggregates, water and energy) in resilient buildings ▪ Risk to life from unsafe building materials, fire risk, building 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. ▪ Follow requirements as given in the “Infrastructure and Equipment Design and Safety” requirements of ESS4. ▪ Project structural elements (buildings) to be designed and constructed by certified professionals, 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

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			the life of the structure/facility. - Design stage to incorporate stakeholder consultations on concept designs including engagement with prospective users and with local communities.
Use of aggregate materials in construction activities	E&S impacts from unsustainable aggregate extraction.	Use of material from non-sustainable sources (i.e., coastal sand and coral reef materials) can lead to long term erosion, loss of habitat or adverse impact on other resource users.	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. An aggregate study report is being prepared separately, the details of which shall be finalized by March, 2024.The following process applies in assessing imported aggregates for the Project : - Where aggregates are sourced from a Part 1 Country, no further assessment and documentation is required; - Where aggregates are sourced from a Part 2 Country, 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

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			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. (iv) 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 ▪ Contribution to overloading of Majuro landfill	Material to be reused in construction process. Waste material to be disposed of offshore. Design team to include the following in bid documents: ▪ Reference to this ESIA and WMMP ▪ Requirement for Contractor to prepare CESMP, WMMP and ▪ Spill Management Procedures (SMP). ▪ Wastes to be recycled / reused where possible – including for example reusing crushed concrete, re-using building materials and recycling metal where possible. ▪ Remaining waste and hazardous waste to be shipped and disposed off to other places.
Use and accommodation of	Local community.	Environmental (increased pressure on existing natural resources)	▪ Avoid use of imported labor as part of bid documentation.

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
imported labor.		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.	
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. ▪

6.1.2 Construction Phase

The details of activities along with risk and their mitigation measures in Construction Phase of the project are given in **Table-6.3.**

Table-6.3: Construction Phase

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
Generation of vehicle particulates and dust as a result of construction activities	Soil disturbance, spillage from trucks transporting	Dust creating nuisance (and potential health issues) where works occur in close proximity to adjacent residential / commercial	▪ Construction vehicles to be regularly serviced and maintained to prevent the emission of visible particulates. ▪ The number and size of stockpiles to be

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
in Project works locations	material	properties.	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	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

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			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. - Include relevant measures in bidding documents and CESMP.
Invasive species.	Terrestrial flora / 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 - Exposed soil to be reseeded and revegetated.
Cutting of coconut trees	Terrestial Flora	Loss of vegetation, however these trees are of no commercial value	- Planting of equal number of coconut trees at location suggested by NTA / MPWIU - Wood can be suitably reused
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. (Refer Annexure 3) - 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-

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			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, no further assessment and documentation is required; - Where aggregates are sourced from a Part 2 Country, 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.

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			▪ For the avoidance of doubt, sourcing of aggregates from RMI will be subject to: ▪ identification in the Sustainable Aggregates Study that such sourcing will be sustainable; ▪ prior approval from GoRMI that such source(s) are acceptable; and ▪ 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.
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). ▪ Traffic Management Plan (TMP) to be implemented and adhered to throughout

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			construction. - Any road user complaints to be to be addressed through the GRM and complaints register.
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 MPWIU 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;

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			▪ 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 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.	▪ Contractor to use locally resident labor only.
Use of underage workers	Contracted workers	Use of workers under the age of 18	▪ 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

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			documents to confirm they are not under the age of 18.
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.
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	▪ 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 (Refer Annexure 5) should cultural resources be uncovered during construction.
Worker Health & Safety	Construction workforce	Potential injury to workers as a result of construction activities. Potential for workers to spread communicable diseases.	▪ 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

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			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) which outlines acceptable behavior for the workers and their role, including reference to GBV, SEA/SH. - Include relevant OHS requirements into bidding documents. - (Refer Annexure 2, 4 and 6)
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 in a screening and Chance Find Procedure included in the ESIA. **(Refer Annexure 5)**
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 pedestrian access into

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
			construction areas. - Inform the community of works activities, timing and the GM process. - All contractor site staff required to sign a Code of Conduct (CoC) 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

6.1.3 POST-CONSTRUCTION PHASE

Table-6.4: Post-Construction Phase

Activity	Source of Risk	Description of Potential Impact	Mitigation Summary
Discharges	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 water bodies.	Regularly maintain and clear drainage channels, culverts and stormwater control features to be installed as part of construction phase (e.g. catch pits), to prolong life of infrastructure.

6.2 SPECIFIC MITIGATION MEASURES

6.2.1 Land Environment

Construction and Demolition Waste

The Contractor to prepare Waste Management and Monitoring Plan (WMMP) and Spill Management Procedures (SMP).

Debris generated during construction phase shall suitably reused as a construction material, subject to the suitability of the material. The contractor shall suitably dispose of unutilized debris material, either through filling up of low lying area, subject to the approval of the Engineer.

The cost for the same shall be included in the Request for Proposal (RFP) for construction phase for mandatory implementation by the Contractor involved in project construction.

Municipal Solid Waste

The proposed mitigation measures include attention to waste minimization, and adoption of a three-bin system (general household waste that cannot be recycled or organic, recyclable waste, dry garbage and degradable waste, such as plastic wrap and non-biodegradable waste).The storage facilities will be established by the contractor taking into account quantities of waste generation and will be accessible to Project workers. The contractor shall provide different coloured bins for different

categories of waste. Biodegradable waste shall be disposed by composting and the non-degradable waste shall be disposed by recycling and if necessary by landfill.

The implementation of mitigation measures shall be the responsibility of the contractor and the same shall be included in the RFP for construction works. Wastes to be recycled / reused where possible – including for example reusing crushed concrete, re-using building materials and recycling metal where possible.

Hazardous Waste

The following mitigation measures for Hazardous wastes from construction activities to be followed:

- Isolated storage site for hazardous wastes likely to be generated from entire site shall be established on site.
- Installation of fire extinguishers near storage site of hazardous wastes.
- As there are no expropriate hazardous waste disposal facilities in Majuro, the hazardous wastes generation should be avoided or minimized to extent possible
- Remaining waste and hazardous waste to be shipped and disposed off Overseas. This is typical for World Bank-funded projects in RMI.
- The implementation of measures for hazardous waste management shall be the responsibility of the contractor involved in project construction and shall be included in the Request for Proposal (RFP) for construction works.

6.2.2 Air Environment

Air Pollution Control due to DG sets

The various mitigation measures to control or minimize air pollution are given below:

Dust Control measures

- Minimising the height and slope of stockpiles to ensure erosion of unconsolidated materials during rainfall events does not occur
- Side enclosure and covering, by impervious sheeting of any aggregate or other dusty material stockpiles
- Dusty vehicle loads transported to, from and within the Project site should be covered by sheets and should not be overloaded
- Use of water sprays to decrease dust generation

Control of Air Pollution from Construction Equipment and Vehicles

- Use of modern machinery, with adequate pollution control devices. Regular maintenance and inspection programs for all construction vehicles.
- Proper and efficient operation of construction machinery and vehicles by qualified workers
- Regular maintenance and inspection program for all construction vehicles

- Minimize unnecessary operation of construction machinery, including efficiency of trip times and reduction of double handling through appropriate placement of stockpiles, haul roads, work depots and work areas
- Daily visual checks to ensure the above points are followed, particularly in regards to smoke emissions from vehicles and equipments.
- Equipment generating smoke should be given defect notices and taken out of service until repaired and approved for re-deployment by site supervisor.

The implementation of Air pollution control measures shall be the responsibility of the contractor involved in project construction and shall be included in the RFP for construction works.

6.2.3 Noise Environment

The various mitigation measure to control Noise pollution are as follows:

- Construction equipment shall be fitted with noise suppression devices and mufflers.
- Construction equipment shall be properly maintained and will be provided with mufflers.
- Staging of construction equipment and unnecessary idling of equipment within noise sensitive areas to be avoided whenever possible.
- All machinery and vehicles shall be fitted with appropriate mufflers, and that all mufflers and acoustic treatments are in good working order
- Heavy equipment like rotating or impacting machines will be mounted on anti-vibration mountings.
- All personnel will be issued hearing protection and are advised of its proper use
- Working hours requirements shall be specified (07.00 to 19.00 Monday to Saturday). These shall be strictly adhered to.
- Consultation with neighboring residential properties to advise of complaint process. In case of construction noise levels begin subject to complaints from residents contractor will stop work and take necessary measures to minimize the noise levels.
- Only well maintained/ new equipment that produces lesser noise would be installed at the work sites.

Measures to Control Noise due to Vehicular Movement

- Vehicles including trucks etc. used by the project works will be managed to produce a smooth flow instead of a noise producing stop and start flow.
- Necessary training/ orientation shall be provided to the traffic operators/ drivers.

Measures to Control Noise due to operation of DG sets

- 225 KVA Diesel Generator with supply voltage 208/120 V. – 3 phases, 4 wire configuration set with a frequency of 60Hz will be considered for stand by supply.
- The DG set shall be radiator cooled with acoustic enclosure.

- The noise level from DG set will not exceed 75 DB at 1m distance.
- DG sets shall also be provided with proper exhaust muffler.
- Proper efforts to be made to bring down the noise levels due to the DG set, outside its premises, within the ambient noise requirements by proper sitting and control measures.
- A proper routine and preventive maintenance procedure for the DG set shall be followed in consultation with DG set manufacturer which would help in reduction in noise levels of DG sets.

It is known that continuous exposure to noise levels above 90 dB (A) affects the hearing of the workers/operators and hence has to be avoided. The implementation of Noise Control measures shall be the responsibility of the contractor involved in project construction and shall be included in the RFP for construction works.

6.2.4 Terrestrial Flora

To avoid and minimise negative impacts from the project construction activities, the project authorities are advised to prepare strict guidelines as follows:

- Contractor will ensure proper demarcation and barricading the Project area to be affected by the construction works.
- Strict control of construction vehicles to ensure that they operate only within the area to be disturbed by access routes and other works.
- Retention of trees and shrubs, where possible on the potential sites for screening of the visual impact.
- The implementation measures as suggested shall be the responsibility of the contractor involved in project construction and shall be included in the RFP for construction works.

6.2.5 Trenching Activities

The various mitigation measures to be followed are as follows:

- Confine work areas along the roads to the minimum possible extent. All the activities including material & waste/ surplus soil stocking should be confined to this area.
- Proper security barriers shall be provided. Avoid material/surplus soil stocking in congested areas immediately removed from site/ or brought to the site as and when required
- Leave spaces for access between mounds of soil.
- Schedule transport and hauling activities during non- peak hours.
- Keep the site free from all unnecessary obstructions.
- Coordinate with Local Police for temporary road diversions, where necessary, and for provision of traffic aids if transportation activities cannot be avoided during peak hours.

6.2.6 Excavation of Earth

The following mitigation measures are to be followed:

- Ensure unobstructed natural drainage through proper drainage channels/ structures.
- Dispose surplus excavated earth at identified sites. Ensure minimum hindrance to locals.
- All excavations will be done in such a manner that the suitable materials available from excavation are satisfactorily utilized as decided upon beforehand.
- Excavations shall conform to the lines, grades, side slopes and levels shown in the drawings or as directed by the engineer.

6.2.7 Safety of Workers

For reduction in workers accidents and hazards the project proponent will develop and commit the Contractors to Site Occupational Health and Safety rules. The following measures are recommended:

- All construction workers shall be advised of the dangers associated with construction work
- Workers to be provided with suitable personal protective equipment (PPE)
- Provision of adequate sanitary facilities to workers
- Train all workers on Safety Health and Environment (SHE) to improve safety awareness
- Trenches over 1.5 m deep or wherever soil conditions dictate should be shored and secured against accidental entry by workers and the public
- Install safety signage along the work areas
- Where construction activities interfere with the movement of traffic, the site should be signed and controlled by trained flagmen/flag women and lit by night.
- Mobile light stands will be provided to illuminate areas of open trench at night

6.2.8 Spillage of Oils and Fuels

The various mitigation measures to be followed are as follows:

- Care to be taken to store fuel and oil (if required) at a place away from any drainage channel preferably to be stored in drums mounted on a concrete paved platform with slop draining to small spills collection pit.
- All location and layout plans of such sites will be submitted prior to the establishment and will be approved by the Engineer in charge
- Ensure that all vehicle / machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the soil and groundwater.
- Arrangement for collection, storing and disposal of oily wastes to the pre-identified disposal sites and approved by the Engineer in charge

6.2.9 Community Safety

All workers shall be required to sign and adhere to a Code of Conduct CoC)

prepared by the Contractor, 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).

6.3 ENERGY CONSERVATION MEASURES

Energy conservation program shall be implemented through measures taken both on energy demand and supply. A layout outlining steps for Energy Conservation is depicted in Figure-15.

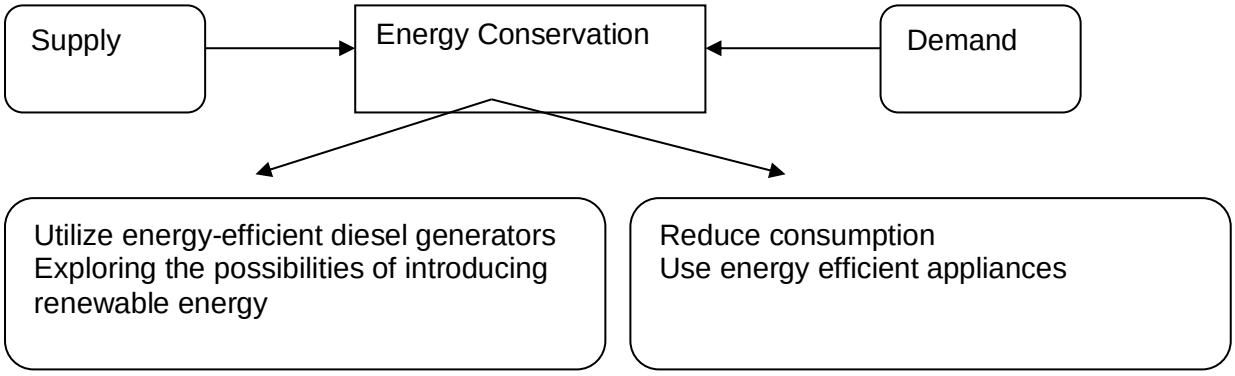


Figure-15: Steps for Energy Conservation

Energy conservation shall be one of the main focuses during the planning and operation stage. The proposed building is designed as a green building campus. All materials and systems used in the project are intended to maximize energy efficiency of the project throughout service life with an emphasis on good quality materials.

The conservation efforts will consist of the following:

- Architectural design
- Maximum utilization of solar light will be done.
- Development of heating, cooling and lighting use in buildings through climate-responsive design and conservation practices.
- Employing renewable energy sources such as day lighting and passive solar heating.
- Optimizing building performance and system control strategies, such as controlling lights with occupancy sensors and controlling comfort.
- Maximizing the use of solar power for signage and pedestrian lighting.
- Designing roads on site to reduce transportation distances.
- Constant monitoring of energy consumption and defining targets for energy conservation.
- Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels.
- Internal lightning system of the building shall be designed for LED lights.

- Fixture with maximum lighting efficacy to achieve minimum LPD and maximum efficacy. All ceiling Fans & Exhaust fans shall also be of energy efficient type.
- Maximize the use of natural lighting through design.
- The orientation of the buildings will be done in such a way that maximum daylight is available.
- The green areas will be spaced, so that a significant reduction in the temperature can take place.

Energy Conservation during Construction Phase

The following energy conservation measures would be undertaken during construction works:

- Efficient work scheduling and methods that minimize equipment idle time and double handling of material
- Throttling down and switching off construction equipment when not in use
- Switching off truck engines while they are waiting to access the site and while they are waiting to be loaded and unloaded
- Switching off site office equipment and lights and using optimum lighting intensity for security and safety purposes
- Careful design of temporary roads to reduce transportation distance
- Regular maintenance of equipment to ensure optimum operations and fuel efficiency
- Specification of energy efficient construction equipment.

6.4 SUMMARY OF ESMP

Table-6.5: Summary of Environment and Social Management Plan

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
Construction of a temporary site offices and lay down area may have a limited impact on the topography	Limit earthwork to the minimum required for the proposed facilities such as site office	Earthwork quantities optimization	Construction Manager	-Ensure unobstructed natural drainage through proper drainage channels/ structures. -Dispose surplus excavated earth at identified sites. -Ensure minimum hindrance to locals. -All excavations will be done in such a manner that the suitable materials available from excavation are satisfactorily utilized as decided upon beforehand. -Excavations shall conform to the lines, grades, side slopes and levels shown in the drawings .
Water for wash down of vehicles and machinery on site may	Provision of uncontaminated water for dust suppression and	Water quality for dust suppression	Site Supervisor	-Monitoring of water Quality

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
contaminate groundwater	wash down of vehicles and machinery			
Spills or leaks of fuels, lubricants or chemicals from machinery and vehicles may contaminate groundwater	Spill control measures should be implemented to prevent spills from infiltrating into the groundwater table. Measures shall include appropriate materials handling and storage procedures, and development of contingency plans in the event of a spill	Compliance of procedures and plans	Health Officer Water / Sanitation Officer	-Ensure that all vehicle / machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the soil and groundwater. -Arrangement for collection, storing and disposal of oily wastes to the pre-identified disposal sites and approved by the Engineer in charge
Noise pollution during construction	All machinery and vehicles shall be fitted with appropriate mufflers, and that all mufflers and acoustic treatments are in good working order	Visual inspections Noise level	Site Supervisor	-Construction equipment/vehicle shall be fitted with noise suppression devices and mufflers. -Staging of construction equipment and unnecessary idling of equipment within noise sensitive areas to be avoided whenever possible. -All machinery and vehicles shall be
	All Machinery and vehicles shall be regularly maintained and broken parts (such as mufflers) are replaced immediately	Visual inspections Noise level	Site Supervisor	

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
	All machinery and vehicles shall be operated efficiently and according to the manufacturers specifications, by trained and qualified operator	Visual inspections Noise level	Site Supervisor	fitted with appropriate mufflers, and that all mufflers and acoustic treatments are in good working order
	All personnel will be issued with hearing protection and are advised of its proper use	Visual inspections Noise level	Safety Engineer	-Heavy equipment like rotating or impacting machines will be mounted on anti-vibration mountings. -All personnel will be issued hearing protection and are advised of its proper use Working hours requirements shall be specified (07.00 to 19.00 Monday to Saturday). These shall be strictly adhered to. -Only well maintained/ new equipment that produces lesser noise would be installed at the work sites.
Dust emissions	Minimizing the height and	Visual	Site Supervisor	-Minimising the height and slope of

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
generated from earthworks due to loading and unloading of materials on site and from uncovered truckload in addition to the potential dust emissions that could occur as a result of excavation for the water supply network	slope of stockpiles to ensure erosion of unconsolidated materials during rainfall events does not occur	inspections		stockpiles to ensure erosion of unconsolidated materials during rainfall events does not occur -Side enclosure and covering, by impervious sheeting of any aggregate or other dusty material stockpiles -Dusty vehicle loads transported to, from and within the Project site should be covered by sheets and should not be overloaded -Use of water sprays to decrease dust generation
	Side enclosure and covering, by impervious sheeting, of any aggregate or other dusty material stockpiles	Visual inspections	Site Supervisor	
	Dusty vehicle loads transported to, from and within the Project site should be covered by sheets and should not be overloaded	Visual inspections	Site Supervisor	
	Use of water sprays to decrease entrainment of dust.	Visual inspections	Site Supervisor	

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
Disposal of excavated material	Re-use of excavated material for the project or other projects in the area	Visual inspections	Site Supervisor	-Dispose surplus excavated earth at identified sites. Ensure minimum hindrance to locals.
Potential public safety concerns associated with the excavation works for the project activities	Area surrounding the excavations should be fenced off or otherwise restricted from public access to prevent injury or accident due to entry onto a construction site All workers to sign and adhere to a Code of Conduct CoC) prepared by the Contractor, 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).	Visual inspections	Site Supervisor	-All workers shall be required to sign and adhere to a Code of Conduct CoC) prepared by the Contractor, –To monitor worker behavior to avoid harm to community members, including reference to Gender Based Violence (GBV), Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH).

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
Exhaust and dust emissions from construction vehicles and machinery	Use of modern machinery, with adequate pollution control devices. Regular maintenance and inspection programs for all construction vehicles.	Visual inspections	Construction Manager / Site Supervisor	-Use of modern machinery, with adequate pollution control devices. Regular maintenance and inspection programs for all construction vehicles.
	Proper and efficient operation of construction machinery and vehicles by qualified workers	Workers qualifications Visual inspections	Construction Manager / Site Supervisor	-Proper and efficient operation of construction machinery and vehicles by qualified workers
	Regular maintenance and inspection program for all construction vehicles	Maintenance and inspection program efficiency and implementation	Construction Manager Site Supervisor	-Regular maintenance and inspection program for all construction vehicles
	Daily visual checks to ensure the above points are followed, particularly in regards to smoke emissions from vehicles and plants. Equipment generating smoke should be given defect notices and taken out of service until	Visual checks	Health Officer	

Environmental Activity	Mitigating Measure(s)	Monitoring Indicator(s)	Nodal Officer	Role/Responsibility
	repaired and approved for re-deployment by site supervisor.			
Contamination of water due to spills and propagation of chemical elements (e.g. PCB, oil, etc.)	Store chemicals in a contained location with no drainage connection to the water network	Water quality tests	Health Officer Water / Sanitation Officer	-Ensure that all vehicle / machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the soil and groundwater. -Arrangement for collection, storing and disposal of oily wastes to the pre-identified disposal sites and approved by the Engineer in charge
	Ensure that transformers are located on impermeable and contained surfaces	Site and type of surfaces on which transformers are located	Hydrogeologist	
Noise pollution during operation	Plant trees and shrubs around facility and fitting of mufflers on equipment	Trees layout, number and height	Landscape/ Engineer	-Ensure Green Belt development - All machinery and vehicles shall be fitted with appropriate mufflers, and that all mufflers and acoustic treatments are in good working order

6.5 ENVIRONMENTAL MONITORING PROGRAMME

The Monitoring of environment enables to identify the changes in the environmental impacts at particular locations, application of alleviate measures and utilisation of standard design guidelines. The objectives of Environment Monitoring Programme are to:

- Evaluation of the efficiency of mitigation and enhancement measures.
- Updating of the actions and impacts of baseline data.
- Adoption of additional mitigation measures if the present measures are insufficient.
- Generate the data, which may be incorporated in environmental management plan in future projects.
- Satisfy legal and community obligations.

6.5.1 Dust Control Monitoring

Construction Phase

Dust monitoring for the new NDMO Building will be based on observation and responding to concerns raised by other parties. If an external complaint is received works to cease until the matter has been addressed.

6.5.2 Ambient Noise Monitoring

Construction Phase

Impacts from noise emissions from vehicular movement and operation of various construction equipments will be based on observation and responding to concerns raised by other parties. If an external complaint is received works to cease untilthe matter has been addressed.

Operation Phase

The monitoring of ambient noise level is not recommended during project operation phase.

6.5.3 Summary of EMP

The details of Environmental Monitoring Programme are given in **Tables-6.6**

Table-6.6: Summary of Environmental Monitoring Programme during Project Construction Phase

S. No.	Item	Parameters	Frequency	Location
1.	Dust Control	Monitoring of water spray for dust control	Twice daily	At site
2	Water quality at construction sites, drains from construction sites	Observation for contaminated runoff including for oil and	Twice daily as appropriate	At Site

S. No.	Item	Parameters	Frequency	Location
		grease		
3	Ambient Noise Levels	Site observation and immediate response to complaints received	Continuous	At Site

6.6 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) Implementation of environment or social mitigation measures recommended in the ESMPs, including any environmental monitoring requirements;
ii) Supervising the Contractor's CESMP implementation and follow up of incidents, non- compliances and other matters;
iii) Consultation and stakeholder engagement; and

An indicative budget of US$ 20,000 has been estimated for the new NDMO Building in the GoRMI to implement the E&S risk management requirements of the ESMP over five years as outlined in Table 11.

Table-6.7: Indicative Budget for implementing the ESMP for NDMO Building

Item	Description	Amount (US$)
Monitoring Environmental Parameters	Includes monitoring of Dust, Noise and waste management. Dust and Noise Monitoring Program to be undertaken as per URP ESMF.	$5,000 / To be suggested
Obtaining permits from RMIEPA and other regulatory authorities	Includes RMIEPA permit fees for works etc.	$5,000 / To be suggested
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.).	$5,000 / To be suggested
Resolution of grievances through GM	Indicative lump sum amount to cover the resolution of any grievances raised during the Project.	$5,000 / To be suggested
PROVISIONAL SUM		**$20,000**

CHAPTER 7
STAKEHOLDER ENGAGEMENT PLAN AND GRIEVANCE REDRESS MECHANISM

7.1 STAKEHOLDER IDENTIFICATION AND ANALYSIS

Stakeholder engagement is critical for resilient infrastructure and access to improved services and in the development and implementation of the institutional and democratic frameworks for resilience planning. The Key stakeholders include those who may be affected by construction works and the beneficiaries.

7.2 STAKEHOLDER CONSULTATIONS

A team of WAPCOS officials comprising of the Architect and Quantity Surveyor / Civil Engineer visited the proposed site in the month of June, 2023 for the New NDMO Warehouse and Office Accommodation, which is a vacant lot next to the existing MoFBPS Supply Warehouse. The meeting with the Key Stakeholders i.e. PREP, DIDA, NDMO, MEC, MWSC and URP concerning the functional requirements of the facilities within the building and utilities .There are no distinct vulnerable or disadvantaged groups identified.

The Consultations during the project preparation phase have been undertaken in the context of a tight timeframe for Environmental and Social Instruments preparation.
The direct consultations were held with the Ministry of Works Infrastructure and Utilities, National Telecommunications Authority (NTA), etc. The Stakeholder Engagement as given in **Annexure 1** sets out details of this consultation where emails, site assessment summary and meetings were used to discuss the project with key stakeholders. The consultations with the relevant stakeholders regarding identification of the vacant plot for the construction of the new NDMO Building are also included.

7.3 GRIEVANCE REDRESS MECHANISM

A Grievance Redress Mechanism (GRM) has been developed in the ESMF for URP project through which affected parties can resolve such grievances arising from technical advisory, design, institutional strengthening, construction or operation impacts from activities associated with the Project in an efficient, unbiased, transparent, and confidential timely and cost-effective manner

The Grievance Redress Mechanism (GRM) will be managed in same way as in other projects as per World Bank portfolio in the 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.

The GRM process and contact details will also be published online and communicated during consultation activities. SEA/SH related grievances will be referred to Women United Together Marshall Islands (WUTMI).

A wide range of direct and indirect stakeholders have been identified for consideration throughout the project, for the proposed construction of new NDMO Building. The project will have a discrete list of stakeholders identified and engaged with the relevant Local and National Government Departments and other relevant stakeholders. Various mechanisms shall be utilised to consult with the identified stakeholders during implementation of the ESIA which includes the following

- Key informant interviews with relevant government staff
- Informal conversations with other interested parties near the works sites.

During the visit of Mr. Tushar Virdi, Project Manager, WAPCOS, to Majuro, Marshall Islands, 2 householders and 1 hardware store owner adjacent to the project site were identified. The location of these households and store relative to the proposed works are shown in Figure 16. A public consultation was carried out on 31.01.2024 (morning) and 01.02.2024. Two householders were met on January 31, 2024, and one hardware store owner was met on February 1, 2024. In this public consultation, they were briefed about the features and benefits of the project. The consents to the project are provided in Annexure 1.

Public consultation photographs during the visit (31.01.2024 and 01.02.2024) are as follows:

S.No.	Name of Householder/ Owner	Photograph
1.	**Name:** Kabinmeto Anmontha **Gender:** Male **Consultation Date:** 31.01.2024	
2.	**Name:** Nemwij Lajina **Gender:** Female **Consultation:** 31.01.2024	

3.	**Name:** Riyad Mucadam **Gender:** Male **Consultation:** 01.02.2024	

Figure 16: Photographs during site visit with the householders and Store owner

CHAPTER 8
SUMMARY AND CONCLUSIONS

The ESIA Study Report highlights the finding of various positive and negative impacts due to the proposed NDMO Building project and suggested suitable mitigation measures for reducing the negative impacts and building climate resilience alongwith the cost estimates for implementation of the same.

The recommendations included in this ESIA Report are designed to avoid environmental damage in accordance with the National Environmental Protection Act, 1984; Environmental Impact Assessment Regulations, 1994 and the World Bank environmental and social safeguard policies. The mitigation measures which includes best environmental management practices have been recommended in the ESIA Report. These recommendations have to be diligently implemented by various implementing agencies to safeguard the environment of the affected project area. It is anticipated the new NDMO warehouse and office accommodation Building would provide a long-term base of operations for DIDA, additional warehousing and office space for NDMO, additional warehousing space and office space for the Supply section of the MoF.

Regarding impacts of the project on the environment, all identified negative impacts that have been predicted appear to be of small-scale. Dust (air pollution), noises, and other wastes may occur, but are of little significance. These impacts are temporary in nature considering the mitigation measures that have been proposed.

Impacts related to land acquisition are not anticipated because land is under the ownership of the NTA.

ANNEXURE 1

STAKEHOLDER ENGAGEMENT

A) WAPCOS visit to Majuro, Marshall Islands – June 2023

A team of WAPCOS comprising of the Architect and Quantity Surveyor / Civil Engineer visited the site proposed in the month of June, 2023 for the New NDMO Warehouse and Office Accommodation, which is cited at the vacant lot next to the existing MoFBPS Supply Warehouse.

Meeting with the Key Stakeholders i.e. PREP, DIDA, NDMO, MEC, MWSC and URP concerning the functional requirements of the facilities within the building and utilities (site assessment summary enclosed).

Based on the survey carried out at site, the total space availability was found inadequate considering the requirements of the TOR. Accordingly, it was decided to find an alternative site for the new NDMO building.

B) WAPCOS visit to Majuro, Marshall Islands – January 2024

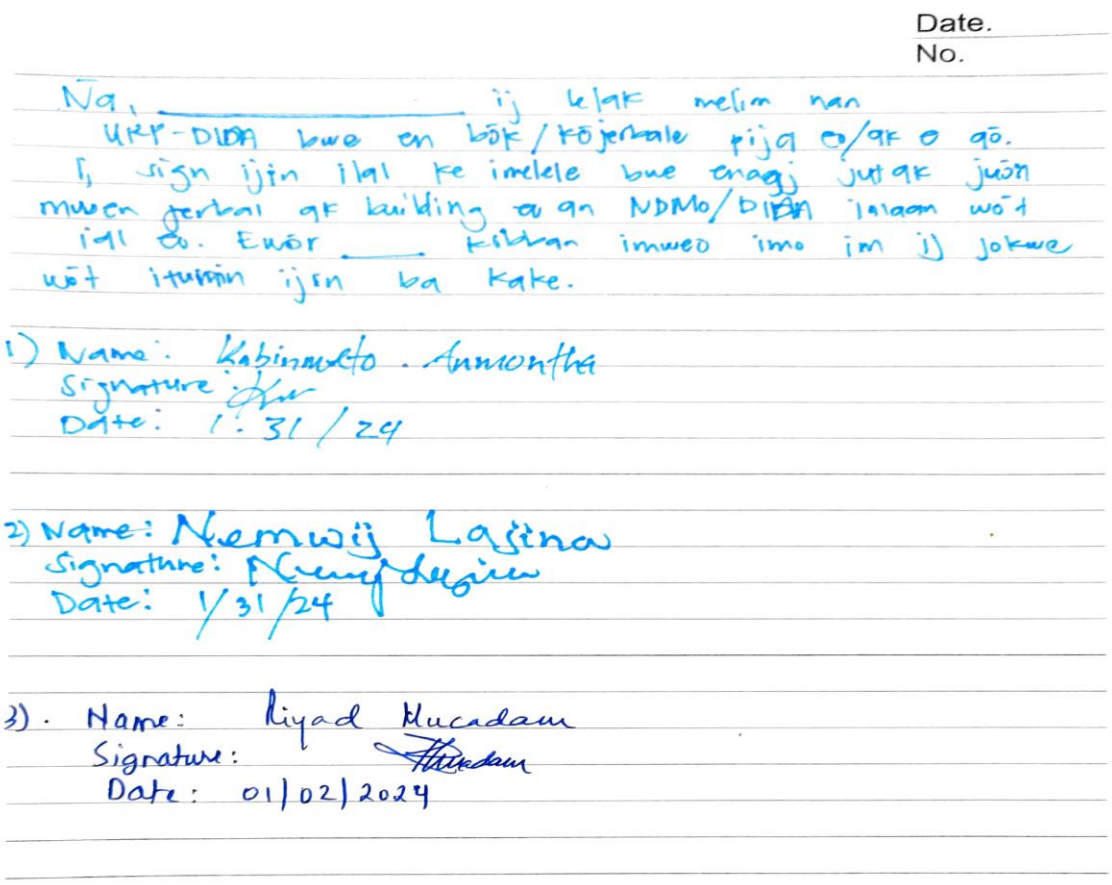
A visit to Majuro, Marshall Islands was carried out by Mr Tushar Virdi, WAPCOS representative for the project. During his visit discussions were held with the officials of MPWIU, MoFBPS, PREP II, URP officials etc. for finalisation of ESIA report.

It was decided that nearby householders and store owner were needed to be briefed about the upcoming New NDMO building. Accordingly a visit was planned with the assistance from PREP II and URP officials to the project site on 31.01.2024 and 01.02.2024. During this site visit the householders and the store owner were meet and told about the project features of the New NDMO building. During the construction phase, there will be very limited impact on their day to day life and during operational phase, there is no impact anticipated. Proper environmental and safety precautions will be adhered at the site..

The respective consents were obtained from the respective owners at the site as set out below:

The English translation of the Marsahllese paragraph below is:

"I, _____, give authorization to URP-DIDA for use of my picture/pictures. I, sign this with the understanding that there will be construction of a building for NDMO/DIDA inside the property, I still reside in my house which is next to this property."



Date.
No.

Na, _____ ij kõjak melim nan UKP-DIDA bwe en bõk / kõjerbale pijq eo/qk o qõ. I, sign ijin ilal ke imelele bwe enagj jutqk juõn mween jerbal qk building ao qn NDMO/DIDA ialaam wõt iqi eo. Ewõr _____ kilkan inweo imo im ij jokwe wõt iturõin ijin ba kake.

1) Name: Kabinnato . Anmontha
Signature:
Date: 1.31 / 24

2) Name: Nemwij Lagina
Signature: Nemwij Lagina
Date: 1/31/24

3). Name: Riyad Mucadam
Signature:
Date: 01/02/2024

C) MPWIU discussion with National Telecommunication Authority (NTA)

Based upon the site assessment report, MPWIU started the process of identification of alternate land site. In the process a land parcel was identified near the NTA office adjoining the NTA road. Discussions were held between MPWIU and NTA for finalization of the land site.

Accordingly, WAPCOS was advised via email dated 7th September, 2023 that the NTA land issue has been resolved and WAPCOS can now continue with design of the NDMO building (copy of email closed).

EMAIL COPY TO START DESIGN WORKS ON NTA LAND

Gmail **WAPCOS LIMITED <wapcos.rmi@gmail.com>**

Re: NDMO Warehouse and Office accommodation on NTA Land-

Kevan Wheeler <wheelerkevan@yahoo.co.uk> Thu, Sep 7, 2023 at 4:15 PM
To: WAPCOS LIMITED <wapcos.rmi@gmail.com>
Cc: Bruce Jackson <bruce.jackson@prepii.org>, Catalino Kijiner <dcskijiner.rmi@gmail.com>, Kino Kabua <dcskabua.rmi@gmail.com>, Melvin Dacillo <architectpmurmi2005@gmail.com>, James Myazoe II <vinnymyazoe@gmail.com>, Jefferson Barton <secwiubarton.rmi@gmail.com>, "Eng.S.Jegasothy" <jegasothy1974@gmail.com>, Garry Venus <gazza700@gmail.com>, Colleen Peacock <colleen@tautai.com>, Aliti Koroi <aliti.koroi@prepii.org>, Isidore Robert <ndmo.isidore@gmail.com>, "Jr. Thomas Kijiner" <kijiner@gmail.com>

Hi Tushar
The Client has advised that the NTA land issue has been resolved and WAPCOS can now continue with design of the NDMO building.

Please arrange to commence the Geotechnical works and other relevant follow on Deliverables asap.

Best regards
Kevan

On Thursday, September 7, 2023, 9:43 am, Kino Kabua <dcskabua.rmi@gmail.com> wrote:

> Hi Kevan,
>
> Let's proceed as it looks like issues have been resolved.
>
> Thanks,
>
> Kino
>
> On Thu, Sep 7, 2023, 7:09 PM Kevan Wheeler <wheelerkevan@yahoo.co.uk> wrote:
>
> **URGENT**
>
> Hi Bruce/ Kino
>
> As you are aware, WAPCOS have been instructed to put a hold on the design works for the NDMO building until the NTA land issue is resolved. Currently we are approximately 2-3 months behind schedule.
>
> We advised the WB accordingly and they were keen to have this issue resolved asap.
>
> Now based on the outcomes in Jegga's email below, regarding the NTA land, please let me know if you are happy for me to instruct WAPCOS to continue with the design works (which involves mobilisation of a Geotechnical crew and equipment to Majuro for Geotechnical investigations on NTA land in the next 2-4 weeks).
>
> Best regards
>
> Kevan
>
> **Kevan Wheeler**
>
> Civil Engineering Adviser
> PREP II | Project Implementation Unit (PIU)
> Ministry of Finance | Republic of Marshall Islands
> wheelerkevan@yahoo.co.uk
> **Skype:** kevan.wheeler

----- Forwarded message -----
From: Eng.S.Jegasothy <jegasothy1974@gmail.com>
To: "kijiner@minta.mh" <kijiner@minta.mh>; kijiner@gmail.com <kijiner@gmail.com>
Cc: Tony Muller <buli96960@gmail.com>; Malie Tarbwillin <mtarbwilin@gmail.com>; Jerry N <jerrynathan09@gmail.com>; Jian Vun <jvun@worldbank.org>; Melvin Dacillo <architectpmurmi2005@gmail.com>; James Myazoe <vinnymyazoe@gmail.com>; Bruce Jackson <bruce.jackson@prepii.org>; Kevan Wheeler <wheelerkevan@yahoo.co.uk>; Jefferson Barton <secwiubarton.rmi@gmail.com>; Cassandra Jacklick <jacklickcassandra@gmail.com>; Sonyia Andrike <andrike.sonyia@gmail.com>; Katherine Davis <majurokd@gmail.com>
Sent: Tuesday, 5 September 2023 at 20:02:45 CEST
Subject: Met with NTA CEO

Dear Sri,

It was nice to meet you yesterday along with RMIURP steering committee member Mr.Tony Muller who has arranged this meeting due to the delay notified on the URP work programme, the land issue for the construction of Resilient facility building (NDMO building).

We are very thankful to your positive response and the corporation expressed and thankful to Mr.Tony Muller for taking the interest in sorting out the issue and minimising the delays.

I am copying this email to all other members connected to this project and keeping them updated on the same page. The following were discussed in yesterday's meeting with the NTA CEO.

1) By coming Friday- NTA could be able to issue the official reply and be able to provide the Survey plan and lease agreement.
2) soon after receiving the official reply from NTA, The negotiation between the NTA and secretary of Finance to be arranged to agree the flat rate of lease and subsequently sign the agreement with Secretary , MoF and the AG
3)According to CEO, the current Main lease is valid 2039 + 25 more years . A total of 41 years Lease.
4) soon after receiving the official reply from NTA, The site could be demarcated and A notice board could be displayed.
5) Requested to appoint some officials from NTA for our daily coordinations on the activity going to be performed in the land . The CEO agreed to appoint 3 members from NTA .

Once again thank you to Mr.Kijiner, CEO of the NTA and Hon.Tonny Muller - Senator of Majuro.

Look Forward to coordinating with you more closely while the construction activities take place.

Thanks and regards

_____
Eng.S.Jegasothy
Project Manager-RMI-URP
jegasothy1974@gmail.com
006924587944

ANNEXURE 2

CIVIL WORKS CONTRACTOR - OCCUPATIONAL HEALTH AND SAFETY CLAUSES

1.0 General – Preparation of Contractor's OHS Procedures

The Contractor must prepare OHS procedures for the new NDMO building, to be cleared by the client prior to works starting, which includes the following:

- Occupational Health and Safety Management procedures
- Identification of staff responsible for health and safety management and complaints management and reporting to the client.

2.0 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 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 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 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 regulations:
- The area around which elevated work is taking place should be barricaded to prevent unauthorized access. Working under other personnel should be avoided;
- 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.

3.0 Worker Code of Conduct

- All workers shall be required to sign and adhere to a Code of Conduct CoC) prepared by the Contractor, 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).

ANNEXURE 3

ENVIRONMENTAL CODE OF PRACTICES

Construction Site

- It should be kept free of water logging
- Protective guards should be provided across the areas where workers may fall or could face an impalement hazard.
- Store tools and materials neatly and out of the way in storage bins or lockers and keep flammable or hazardous wastes, if any, in covered, segregated waste containers
- Keep form and scrap lumber away from work areas, passageways
- No loose material should be allowed to leave unattended, and sites should be properly finished after completing the work
- Good housekeeping should be maintained at construction sites
- The Contractor shall undertake measures to minimize the dust generation, emissions, noise, oil spills, residual waste and accidents at the plant site as well as during transportation of material to construction site.
  - During site clearance, all cut and grubbed materials shall be kept at a secured location so that it does not raise any safety concerns.
  - During excavation, water sprinkling shall be done to minimize dust generation
  - Frequent water sprinkling shall be done on the haul roads to minimize dust generation.
  - In case of loose soils, compaction shall be done prior to water sprinkling.
- Cautionary and informatory sign shall be provided at all locations specifying the type of operation in progress.
- The construction waste generated shall be disposed as per guidelines for “Waste Management Plan”.
- The equipments, which are required to move forward and backward, shall be equipped with alarm for backward movement. It shall be ensure that the workers shall remain away from the working areas at such times.

Storage Sites

Contractor shall provide layout and specifications for storage of:

- Petrol/Oil/Lubricants: Brick on edge flooring or sand flooring will be provided at the storage places of Petrol/Oil/Lubricants to avoid soil and water contamination due to spillage.
- Cement: Damp-proof flooring, as per RMI Building codes

Environment, Health and Safety

- Safe access to the job sites should be provided to all workers
- Passage ways, walkways, and stairways should be kept free of materials, scraps
- or obstructions
- First Aid box should be readily available at construction sites

- Contact with nearest nursing homes/clinics/primary health centre should be maintained by the Contractor to deal with any emergency at site
- A vehicle should be readily available at construction site to meet emergency situation
- The contractor should comply with all the precautions as required for the safety of the workmen as per the International Labour Organization as far as those applicable to this project
- The contractor should strictly follow the statutory child labour act
- Personal Protective Equipment such as helmets, hand gloves, safety shoes, nose masks, safety goggles should be provided to the workers.

Public Safety

- Warning sign boards should be provided along the construction sites in Hindi/English as well as local language
- Trespassing of the construction sites should not be allowed

Landscape degradation

- On completion of the works all the temporary structures may be cleared away, all rubbish disposed, excreta and disposal pits or trenches filled in and effectively sealed off and the whole site
- The site shall be restored to a condition in no way inferior to the condition prior to commencement of the works

ANNEXURE 4

CONTRACT CLAUSES FOR INCLUSION IN CONTRACTORS' AGREEMENTS

The rules, including specific prohibitions and construction management measures, should be incorporated into all relevant bidding documents, contracts, and work orders for the New NDMO building located at Majuro, Marshall Islands.

General Prohibitions: The following activities should be prohibited on or near the project site:

- Cutting of trees for any reason outside the approved construction area
- Hunting, fishing, wildlife capture, or plant collection; All employees, including volunteers and sub-contractors should be encouraged to anonymously report suspected or actual acts of hunting/killing of wild animal by a fellow worker
- Disturbance to anything with architectural or historical value
- Use of firearms (except authorized security guards)
- Use of alcohol by workers
- Employment of children in accordance with international law and the Children's Act.

Waste Management:

Contractor to prepare a Waste Management Plan for the new NDMO building to cover all aspects of construction waste generation, storage, disposal and reuse. Material reused in construction process. Residual waste material disposed of offshore.

Construction related measures:

- Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas; never dispose spent oils on the ground, in water courses, drainage canals or in sewer systems.
- To avoid soil compaction, use only approved and existing routes, do not establish new routes
- Grade existing routes to improve surface drainage.
- Avoid water sources and report any noticeable reduction in quality
- Remove excess and unused materials and equipment from work sites to improve the landscape
- Decommission all camps and bases including clearing of all waste

Labour health and safety:

- Place signs and lighting at strategic locations informing community before works starts.
- Conduct safety training for construction workers prior to beginning work; provide induction and training on the job, safety issues and other relevant ESMP requirements. Drivers must also be trained on defensive driving.

- Provide personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed boots etc.,) for construction workers and enforce their use.
- During heavy rains or emergencies of any kind, suspend all work.
- Safely store hazardous machinery and items away from the public.
- Educate on risks and prevention of STD/STIs
- Erect Speed bumps and speed limits.

Prevention of Violence against Children and Women:

- Ensure enforcement and adherence to Codes of Conduct for addressing VAC, GBV, and SEA, including regular monitoring and awareness building of the Codes of Conduct
- Do not employ or exploit children for project works
- Encourage women to enlist for employment in project activities without any impediments put in their way
- Ensure survivor-centered approach to address GRM as per the procedures in the GRM (and Codes of Conduct)
- Conduct periodic training of employees on the codes of conduct and related procedures

Community Safety during Construction:

The Contractor's responsibilities include the protection of every person (workers and the public) and nearby property from construction accidents. The Contractor shall be responsible for complying with all national safety requirements and any other measures necessary to avoid accidents, including the following:

- Carefully and clearly mark pedestrian-safe access routes.
- Restrict and monitor public access to the work sites
- Cover up the trucks, to prevent wind blowing away sand and gravel to generate dust
- Ensure surroundings are safe and secure for all (implement health and safety plan, coordinate,inform, supervise and monitor)

ENVIRONMENTAL AND SOCIAL SUPERVISION DURING CONSTRUCTION

The "Codes of Conduct and Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence (GBV) and Violence against Children (VAC)" should also be considered in contracts.

All bidding documents should indicate how compliance with environmental rules and design specifications would be supervised, along with the penalties for noncompliance by contractors or workers. Construction supervision requires oversight of compliance with the ESMP by the contractor or his designated environmental supervisor.

Depending on the type and severity of breach, penalties may include:

- cancellation of contract
- suspension of works, and payment withheld until remediation has taken place without entitlement to claims
- Existing penalties listed by various laws for specific breaches litigation for breaches of specific laws (by MPWIU, the relevant enforcement institutions or affected parties).
- barring the contractor from future assignments of the Bank and MPWIU

ANNEXURE 5

CHANCE FIND PROCEDURES – CULTURAL HERITAGE AND UXO

The following procedural guidelines must be considered in the event that previously unknown heritage resources or burial sites are exposed or found during the life of the project.

- Avoid mosques, cemeteries, World Heritage Sites and similar sites of cultural significance
- Consult with the communities to help identify any other cultural or spiritual sites of importance In case culturally valuable materials are uncovered during excavation:
- Stop work immediately following the discovery of any materials with possible archaeological, historical, paleontological, or other cultural value, announce findings to project manager and notify the PCU who in turn notifies the National Council for Arts and Culture
- Protect artefacts as well as possible, using plastic covers, and implement measures to stabilize the area, if necessary
- Prevent unauthorized access to the artefacts
- Restart construction works only upon the authorization of the relevant authorities.

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 MPWIU 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 MPWIU.

Signed:…….

Date:……

ANNEXURE 6 EMERGENCY MANAGEMENT AND RESPONSE

1.0 General

The objectives of emergency response management for the new NDMO Building 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. The identified emergency matters related to proposed construction of the new NDMO building are as follows:

- Fire
- Flooding
- Communicable diseases

2.0 Assessment of Risk

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.

2.1 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;

2.2 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.

2.3 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. *(Source: MURP ESMF, January 2022)*

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. Necessary drainage channel along the periphery of the building has been proposed in the design of NDMO building in order to contain the flooding inside the premises of the building.

2.4 Cultural Heritage – Chance Finds

Screening shall be undertaken prior to selection of Project work areas, but there remains the possibility of chance finds of cultural 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. The Contractors shall implement Chance Find Procedures as given in Annexure.

3.0 Priority Actions

The Priority actions, responsibilities and timing are given in Table below.

Table: Priority Actions, responsibilities and timing

Target	Person Responsible	Timing
Develop and implement Emergency Management and Response Procedures (EMRP).	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 meetings.	Contractor	Prior to construction

ANNEXURE 7 NTA APPROVAL FOR SUBLEASE TO GoRMI

Marshall Islands
National Telecommunications Authority
P.O. Box 1169
Majuro, Marshall Islands MH 96960
Telephone: + (692) 625-3852 | Facsimile + (692) 625-3952

April 24, 2024

Mr. Jefferson B. Barton
Secretary
Ministry of Works, Infrastructure & Utilities
Majuro, Marshall Islands 96960

SUBJECT: **Sublease of a portion of Mokeo Weto for the construction of the Government Resilient Facility Building**

I am pleased to advise that we have reached agreement on the proposed sublease between the RMI Government and the National Telecommunications Authority (NTA) to construct the Government resilient facility building under the World Bank Financed Urban Resilience Project.

The sublease agreement is being finalized for signature.

In the meantime, your ministry is authorized to proceed with any required pre-bid activities on the land. Please coordinate with Mr. Yoshi Kaneko, our Chief Operating Officer, on any pre-bid activities on the land. If you so desire, you may also call for construction bids.

Thank you for your attention in this matter and should you have any questions please do not hesitate to contact me directly.

Sincerely,

4/24/2024

Thomas Kijiner, Jr.
President & CEO

Copy provided:
Chief Secretary
Secretary of Finance, Banking and Postal Services
Secretary of Culture and Internal Affairs