

Initial Environmental Examination

PUBLIC

Project No.: 56192-001

August 2024

Marshall Islands: Women and Youth Skills Empowerment and Resilience Project

Prepared by the Ministry of Finance, Banking Services and Posts (MOFBSP) and the Ministry of Culture and Internal Affairs (MOCIA) of the Republic of Marshall Islands (RMI) for the Asian Development Bank (ADB).

ABBREVIATIONS

ACM	Asbestos Containing Material
ADB	Asian Development Bank
AP	Affected People
CAC	Community Advisory Committee
CAP	Corrective Action Plan
CEMP	Construction Environmental Management Plan
CMI	College of the Marshall Islands
CP	Child Protection
CSS	Country Safeguard Systems
DSC	Design and Supervision Consultant
EA	Executing Agency
EHSO	Environmental, Health and Safety Officer
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
ENSO	El Niño-Southern Oscillation
EPA	Environmental Protection Agency
GDP	Gross Domestic Product
GRM	Grievance Redress Mechanism
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
HPO	Historic Preservation Office
IBA	Important Bird Areas
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area
MOCIA	Ministry of Culture and Internal Affairs
MOEST	Ministry of Education Sports and Training
MOF	Ministry of Finance
MOJIL	Ministry of Justice, Immigration, and Labor
NCDs	Non-communicable diseases
NEMS	National Environmental Management Strategy
NEPA	National Environmental Protection Act 1984
NEPEAP	National Energy Policy and Energy Action Plan
NGO	Non-Government Organization
NTC	National Training Council
O&M	Operation and Maintenance
OCR	Ordinary Capital Resources
OEPPC	Office of Environmental Planning and Policy Coordination
OHSA	Occupational Health and Safety Association
PAM	Project Administration Manual
PIAL	Prohibited Investment Activities List
PIMS	Project Implementation and Management Supervision
PPE	Personal Protection Equipment
PSC	Project Steering Committee
PSS	Public School System
PGI	Poverty Gap Index

QPR	Quarterly Progress Report
RGLMA	Regulations Governing Land Modification Activities
RMI	Republic of the Marshall Islands
SEAH	Sexual Exploitation, Abuse, and Harassment
SPS	ADB's Safeguard Policy Standard 2009
STI	Sexual Transmitted Infection
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
USD	United States Dollar
USP	University of South Pacific
WAM	Waan Aelōñ in Majel
WHO	World Health Organization
WUTMI	Women United Together Marshall Islands
WYSER	Women and Youth Skills Empowerment and Resilience

WEIGHTS AND MEASURES

feet	–	ft
ha (hectare)	–	Unit of area
km (kilometer)	–	1,000 meters
kV	–	kilovolt (1,000 volts)
kW	–	kilowatt (1,000 watts)
kWh	–	kilowatt-hour
m	–	meter
sq km	–	square kilometers

NOTES

In this report, "\$" refers to United States dollars.

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EXECUTIVE SUMMARY

The Project. The Republic of the Marshall Islands (RMI) has requested assistance from the Asian Development Bank (ADB) to finance a project to improve young people's access to productive livelihoods and decent jobs. In this context, the proposed Women and Youth Skills, Empowerment, and Resilience (WYSER) Project (the project) aims to improve women and young people's access to productive livelihoods and decent jobs in RMI. The rationale behind this project is based on several key issues faced by the youth in the country.

Rationale. The Marshall Islands National Youth Policy highlights that young people represent significant human capital potential.¹ Youth aged 15-24 comprise 18.5% of the population. In 2019, roughly 41% of youth were not in employment, education, or training, with higher rates for young women (45%) compared to young men (37%), and higher rates in outer islands (45%) than urban areas (40%).² About half of the youth born in the outer islands have migrated to the urban areas seeking jobs and better living conditions. Due to limited education, training, and skills, most end up unemployed or in low-paying jobs, contributing to increased levels of substance abuse and crime. Employers complain about jobseekers' lack of foundational and soft skills, such as conflict management and problem-solving skills.³ There is an opportunity to maximize opportunities for youth in the country's growth sectors, including fisheries, services, tourism, health, education, climate change adaptation, and disaster risk management.⁴ The United Nations Children's Fund has highlighted the need for further support to youth not in employment, education, or training.⁵

Impact, outcome, and outputs. The project is aligned with the following impacts: (i) an enabling and sustainable environment built where all youth develop their full capacity and contribute meaningfully to sustainable development;⁶ and (ii) gender equality and the empowerment of women progressed, with the meaningful involvement and contributions of all development sectors and civil society.⁷ The project will have the following outcome: vulnerable women's and youth's skills, resilience, and empowerment increased. There will be three outputs including (i) Output 1: Climate-resilient infrastructure assets for women and youth upgraded and expanded; (ii) Output 2: Women and youth's skills for livelihood improvement enhanced; and (iii) Output 3: Capacity of government and civil society organizations to implement women's and youth's empowerment activities strengthened.

The proposed scope of Output 1 will include:

- (i) Women Center renovation and expansion;
- (ii) Development of Childcare and Family-Friendly Facilities; and
- (iii) Reconstruction of a seawall.

Institutional responsibilities. The Ministry of Finance, Banking and Postal Services (MOFBPS) will be the executing agency (EA) for the project with the Ministry of Culture and Internal Affairs (MOCIA) as the implementing agency (IA). ADB and the RMI Government have agreed on the

¹ Government of the Republic of the Marshall Islands (GRMI). 2021. *National Youth Policy 2021-2025*.

² GRMI. 2021. *The Marshall Islands Labour Market Monograph – HIES 2019-2020: Draft Report Outline*.

³ World Bank. 2020. *Project Appraisal Document for RMI Education and Skills Strengthening Project*.

⁴ World Bank. 2021. *The Republic of the Marshall Islands Country Economic Memorandum and Public Expenditure Review: Maximizing Opportunities, Enhancing Sustainability*. Washington, DC. O'Neill, A. 2022. *The Marshall Islands: Share economic sectors in the gross domestic product (GDP) from 2010 to 2020*. Statista.

⁵ United Nations Children's Fund. 2017. *Situation Analysis of Children in the Marshall Islands*.

⁶ Government of Marshall Islands. 2021. *National Youth Policy 2021-2025*.

⁷ GRMI. 2015. *National Gender Mainstreaming Policy*.

formation of a project steering committee (PSC) consisting of MOFBPS, MOCIA, Chief's Council, College of Marshall Islands (CMI), Division of International Development Assistance, Economic Policy, Planning and Statistics Office, Environmental Protection Agency (EPA), Ministry of Health and Human Service, Ministry of Public Works Infrastructure and Utilities, National Training Council, Ministry of Education, Sports and Training (MOEST) also known as Public School System (PSS), Public Service Commission, Waan Aelōñ In Majel (WAM), and Women United Together Marshall Islands (WUTMI). Implementation of the project will be managed by the project implementation and management supervision (PIMS) consultant based within MOCIA.

Safeguards due diligence. ADB requires the consideration of environmental issues in all aspects of its operations as described in the ADB Safeguards Policy Statement 2009 (SPS)⁸. This requires environmental assessment of all project loans, program loans, sector loans, sector development program loans, loans involving financial intermediaries, and private sector loans. The project has thus been screened and classified as “Category B” for environment according to the requirements of the SPS. Based on the project’s potential adverse environmental impacts which are site-specific, low to minimal, and with mitigation and control measures readily available, an initial environmental examination (IEE) is considered the appropriate level of assessment. An IEE and two environmental management plans (EMP) were developed in compliance with ADB’s SPS and RMI national environmental laws and regulations and other country safeguard systems (CSS) for the priority site investments under Output 1. These national regulations provide the framework for protection of resources and environmentally sustainable development in RMI and are directly applicable to this project.

Location and scope of the project. The proposed scope of the project will include demolition, renovation and construction of a new women’s center located adjacent to the WAM site as well as the childcare and family-friendly facilities at the CMI; and reconstruction of the existing dilapidated seawall at the WAM site to a more climate-resilient one.

Land acquisition and involuntary resettlement. The project will not require additional land acquisition, nor will there be any involuntary resettlement impact such as physical or economic displacement under the project. To manage this aspect, agreements on land leased by MOEST and WAM, will entail memorandums of understanding (MOU) regarding the use of land and infrastructure activities to be signed between MOCIA and MOEST for the women’s center two-story extension, and between MOCIA and WAM for the WAM seawall reconstruction. All the civil works and construction activities will be on land leased by RMI government and WAM from traditional owners and a community consultation with the relevant landowners resulted in broad endorsement of the project.⁹

Climate change. Climate change will significantly impact RMI and its residents, disproportionately affecting women and youth due to existing societal roles and inequalities. Planning for climate change will help mitigate potential impacts to the project, vulnerable ecosystems, and quality of life for Majuro residents. Climate change risks identified for the country are:

- (i) Increased sea water inundation;

⁸ ADB. 2009. *Safeguard Policy Statement*.

⁹ Consultations with landowners on 9 May 2024 gave explicit endorsement of the project by Margret Alee-Bigler (owner of PSS/MOEST leased land). Other landowners in attendance were Edward Baron Alee-Bigler (owner of PSS/MOEST leased land), Wida Johnson-Ferm (owner of PSS/MOEST leased land), and Jones Napking (owner of CMI leased land).

- (ii) Increased erosion and subsidence of coastal areas;
- (iii) Increased frequency of intense rainfall events; and
- (iv) Subsequent flooding and increase in tropical cyclone intensity, though reduced frequency.

RMI, with support from ADB, is proposing climate-resilient infrastructure assets to support women's and youth's access to education and training and facilitate access to support services, with the aim of building their resilience.

Environmental management plan. The PIMS consultant will be responsible for environmental management and will assist with inspection, monitoring, reporting, and initiating corrective actions or measures where necessary. Two EMPs have been prepared in this IEE; the first EMP covers the women's center and the childcare & family-friendly facilities while the second EMP covers the rehabilitation of the seawall. The EMPs include (i) mitigation measures for potential environmental impacts during pre-construction, construction, operation, and decommissioning, (ii) an environmental monitoring program, and (iii) the role and responsibilities of entities for mitigation, monitoring, and reporting. To ensure that contractors will comply with the provisions stated in the EMPs, the PIMS consultant will prepare and provide the following specification clauses for incorporation into the bidding documents: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals; (ii) environmental clauses for contractual terms and conditions, and (iii) the full IEE/EMP for compliance. The PIMS consultant and the contractors will each nominate qualified environment specialists to undertake environmental management activities and ensure effective EMP implementation.

Information disclosure, consultation, and participation. Consultations with the general community and key stakeholders including relevant RMI Government ministries were undertaken during missions in 2022, 2023, and 2024. A summary of the consultations is attached in Appendix A. Information was provided on the scale and scope of the project, and the expected impacts and proposed mitigation measures, through consultation with government departments, local authorities, and the public in meetings. The process also gathered information on relevant concerns of the local community for the project, to address these concerns in the project design and implementation stages. No significant environmental concerns were raised during the consultations, and the stakeholders strongly support the project and are looking forward to the benefits of renewable energy sources. The IEE will be made available for review and disclosure by interested stakeholders and the RMI Environment Protection Agency (EPA) according to the provisions of the ADB Access to Information Policy 2018.

Grievance redress mechanism. A grievance redress mechanism (GRM) has been prepared in this IEE and will be established early in implementation to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances about any aspect of the project including environmental and social performance. The GRM is based on accepted and standard practices in RMI and will provide an accessible, time-bound, and transparent mechanism for affected persons to voice and resolve social and environmental concerns linked to the project. The PIMS consultant and the contractors will each maintain a complaint registry which will be closely monitored by MOFBPS and MOCIA.

Conclusion and recommendation. The project is expected to bring significant positive impacts to relevant communities and project beneficiaries of the new women's centre, new childcare, and family-friendly facilities, and rehabilitated WAM seawall.

This IEE has identified as far as practicable the potential environmental impacts associated with the construction works of the infrastructure investments for the WYSER project. The potential environmental impacts arising from design, construction, operation, and maintenance of the project will be minor, localized, and acceptable. Provided the mitigation measures outlined in this IEE and the two EMPs are appropriately implemented, the project is not anticipated to have any widespread, irreversible significant or long-term environmental impacts. Key findings of the project are summarized below:

- (i) Adverse environmental impacts will mainly be construction impacts including pollution risks and waste generation related to the demolition and site clearing activities of the existing structures and construction of new facilities.
- (ii) Climate change and vulnerability is taken into consideration with the reconstruction of an engineered seawall to protect the Women's Center and other infrastructure developments at the WAM site.

This IEE, and accompanying EMPs, is considered sufficient to meet environmental safeguard requirements of ADB and RMI, in respect to the management of the construction and operational activities under Output 1 of the project.

I. INTRODUCTION

A. Report Structure

1. The IEE consists of the following sections: (i) executive summary; (ii) introduction; (iii) policy and legal framework; (iv) project description; (v) description of the environment; (vi) anticipated environmental impacts and mitigation measures; (vii) analysis of alternatives; (viii) public consultation and disclosure; (ix) grievance redress mechanism; (x) environmental management plan; and (xi) conclusions.

B. Project Background

2. **Location.** The Republic of the Marshall Islands (RMI) is in the Central Pacific between 4° and 14°N latitude and 160° and 173°E longitude. It consists of 29 true atolls and five limestone islets (Figure 1). It spreads across 2.1 million km² (822,779 mi²) of ocean but has a total landmass of only 180 km² (70 mi²) and a maximum elevation of two meters. The RMI is divided into two chains: (i) the western or Ralik group including the atolls of Jaluit, Kwajalein, Wotho, Bikini, and Eniwetok, and (ii) the eastern or Ratak group including the atolls of Mili, Majuro, Maloelap, Wotje, and Likiep.

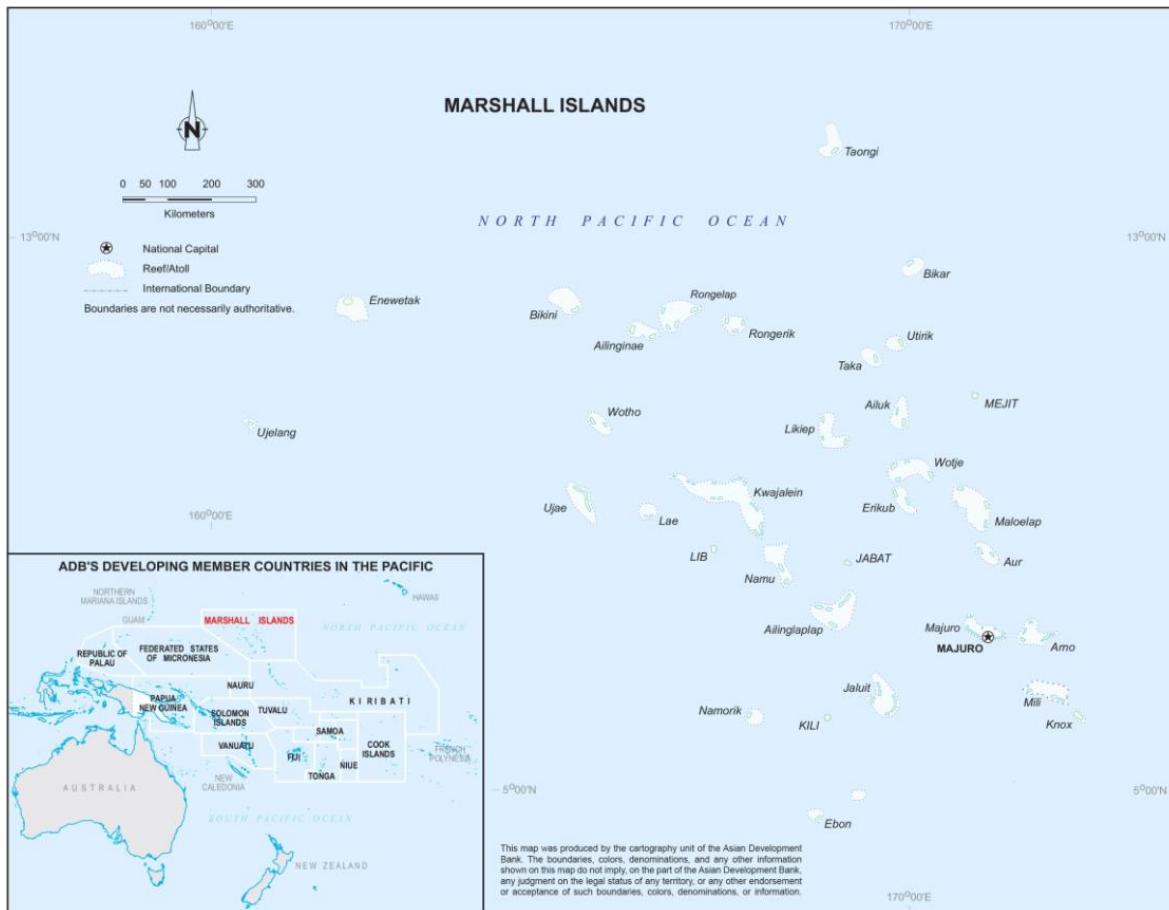


Figure 1: Republic of Marshall Islands

3. **Rationale.** The Marshall Islands faces significant challenges with high unemployment rates, particularly among its youth. The youth unemployment rate is alarmingly high at 58.5%, one of the highest in the Pacific region.¹ In response to this critical issue, the government has taken proactive measures. It launched the National Action Plan on Youth Employment (2017-2019), which was developed through extensive consultations across government ministries, regional and international development partners, training institutions, employer and workers organizations, and youth representatives. The plan aims to address the lack of support for entrepreneurship, the mismatch of skills, and weak employment services.

4. Women's unemployment is also a concern in the Marshall Islands. The male and female unemployment rates are, respectively, 28 percent and 37 percent.² Women's annual wages are \$3000 less than those of men in the same occupations. In addition, only 6.1% of seats in parliament were held by women as of February 2021.³ In 2018, 19.3% of women aged 15-49 years reported that they had been subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months. Efforts are being made to address these issues and achieve gender equality in the Marshall Islands. However, there is still much work to be done to improve the situation.

5. RMI is one of the world's most vulnerable areas to climate change.⁴ The country depends on natural resources that are vulnerable to coastline erosion, storm surges, and shifting rainfall. Rising sea levels and temperatures have increased the vulnerability of RMI to tropical storms and drought. A new climate study visualizes the confronting risk of projected sea level rise in the Marshall Islands.⁵ Rising sea levels are projected to endanger 40% of existing buildings in the capital, Majuro, with 96 percent of the city at risk of frequent flooding induced by climate change. The study provides alarming visual projections, together with adaptation options to assist the atoll nation in tackling rising sea levels and inundation over the next 100 years. The impacts of natural hazards in RMI are exacerbated by the underlying conditions of vulnerability, including extremely high population density, high levels of poverty, low elevation, and a weak economic base.⁶

6. RMI is a stable democracy with regular, competitive elections, an independent judiciary, and a free press.⁷ Civil liberties are generally respected. However, persistent problems include corruption, gender discrimination, domestic violence, and human trafficking. In the Marshall Islands, only 39.3% of the population aged 15 years and above is employed.⁸ For every one-thousand baby born, 30 die before their first birthday, the fourth highest in the Pacific region. Lastly, RMI faces unique issues, including the tension between customary and civil political power and its ongoing relationship with the US through the Compact of Free Association.⁹

¹ International Labour Organization. [Marshall Islands: Employment and Environmental Sustainability Fact Sheets 2019](#).

² The Borgen Project. 2018. [Women's Empowerment in the Marshall Islands Needs Improvement](#).

³ Commitments made to reduce high youth unemployment in Marshall Islands. https://www.ilo.org/suva/public-information/press-releases/WCMS_605465/lang--en/index.htm.

⁴ United States Agency International Development. [The Republic of the Marshall Islands \(RMI\) Climate Change Country Profile](#).

⁵ World Bank. [Marshall Islands: New Climate Study Visualizes Confronting Risk of Projected Sea Level Rise](#).

⁶ World Bank Climate Change Knowledge Portal. [Marshall Islands - Vulnerability](#).

⁷ United States Department of State. [2022 Country Reports on Human Rights Practices: Marshall Islands](#).

⁸ The Secretariat of the Pacific Regional Environment Programme. [Republic of the Marshall Islands State of Environment Report](#).

⁹ United Nations. [Republic of the Marshall Islands: Views regarding the Possible Security Implications of Climate Change](#).

7. **Impact, outcome, and outputs.** The project is aligned with the following impacts: (i) an enabling and sustainable environment built where all youth develop their full capacity and contribute meaningfully to sustainable development (National Youth Policy 2021–2025); and (ii) gender equality and the empowerment of women progressed, with the meaningful involvement and contributions of all development sectors and civil society (National Gender Mainstreaming Policy). The project will have the following outcome: vulnerable women's and youth's skills, resilience, and empowerment increased. There will be three outputs including (i) Output 1: Climate-resilient infrastructure assets for women and youth upgraded and expanded; (ii) Output 2: Women and youth's skills for livelihood improvement enhanced; and (iii) Output 3: Capacity of government and civil society organizations to implement women's and youth's empowerment activities strengthened.

8. **Implementation arrangements.** For the implementation of the proposed project, the Ministry of Finance, Banking and Postal Services (MOFBPS) will be the executing agency with the Ministry of Culture and Internal Affairs (MOCIA) as the implementing agency. ADB and the RMI Government have agreed on the formation of a project steering committee (PSC), which will consist of representatives from:

- (i) MOFBPS as co-chair;
- (ii) MOCIA as co-chair;
- (iii) Chief's Council;
- (iv) College of Marshall Islands (CMI);
- (v) Division of International Development Assistance
- (vi) Economic Policy, Planning and Statistics Office
- (vii) Environmental Protection Agency (EPA)
- (viii) Ministry of Health and Human Service
- (ix) Ministry of Public Works Infrastructure and Utilities;
- (x) Majuro Local Government;
- (xi) National Training Council (NTC);
- (xii) Ministry of Education, Sports and Training (MOEST) also known as Public School System (PSS);
- (xiii) Public Service Commission;
- (xiv) Waan Aelōñ In Majel (WAM); and
- (xv) Women United Together Marshall Islands (WUTMI).

9. Project implementation will be undertaken by MOCIA and supported by the project implementation and management supervision (PIMS) consultant.

C. Purpose, Objectives and Scope of IEE

10. **Purpose and objectives.** The purpose of this document is to provide an environment assessment in the form of an IEE of the WYSER project which constitutes (i) renovating an existing building and construction of a new two-story extension to expand MOCIA women's center, (ii) construction of new family-friendly facilities at the College of the Marshall Islands (CMI) including a childcare center, and (iii) reconstruction of an existing seawall to protect existing buildings of Waan Aelōñ In Majel (WAM) a local NGO. The project will also install solar panels and battery systems to increase climate resilience.

11. ADB requires the consideration of environmental and social issues in all aspects of its operations, and the requirements for environmental protection and management are described in ADB's SPS. The SPS requires environmental assessment of the appropriate level for all

investments irrespective of financing modality. This IEE report documents the social and environmental assessment for the proposed project and assesses the social and environmental issues to be considered in project planning design and implementation stages. The IEE also addresses the environmental management requirements of the country safeguards system (CSS), in addition to those of the SPS.

12. The objectives of the IEE are to:

- (i) assess the existing environmental conditions in the project area including the identification of environmentally sensitive areas;
- (ii) assess the proposed planning and development activities to identify their potential impacts, evaluate the impacts, and determine their significance;
- (iii) propose appropriate mitigation measures that can be incorporated into the proposed activities to minimize any adverse impacts, ensure that residual impacts are acceptable and propose monitoring and planning of projects;
- (iv) provide guidance as to the assessment of suitability for construction locations;
- (v) review any legislative and approval requirements under which construction activities can occur; and
- (vi) prepare an environmental management plan (EMP) incorporating mitigation and monitoring measures that will guide environmental management during project construction and operation.

13. **Scope of the IEE.** Following the screening of conditions, the project has been classified as Category B for environmental impacts. The assessment was completed employing site/field surveys, consultations, and review of primary and secondary data. The IEE focuses on the expected impacts of civil works under Output 1 as Outputs 2 and 3 do not have any expected environmental impacts. The IEE and EMP will be further updated after detailed design.

II. POLICY AND LEGAL FRAMEWORK

14. The implementation of the project will be governed by the environmental laws and regulations of the RMI and the safeguard policies of the ADB.

A. RMI Environmental and Social Acts and Regulations

15. Key legislation relevant to the scope of work of the project under Output 1 are described below.

16. **Government Infrastructure Development Integrity and Sustainability.** The purpose of the Government Infrastructure Development Integrity and Sustainability Act, 2016 is to encourage and ensure the sustainability of Government Infrastructure Development Projects. It aims to prevent disruptions to these projects due to changes in government or administration and to maintain the integrity and sustainability of such projects. The act prohibits any government from changing infrastructure development projects that have been approved by a previous government or development partners and are identified for implementation.

17. **National Environmental Protection Act.** Amongst other functions, the National Environmental Protection Act 1984 (NEPA) establishes the RMI Environmental Protection Authority (EPA) and sets out the role of other government agencies in the environmental impact assessment process (Part 4).

18. **Environmental Impact Assessment Regulations.** The Environmental Impact Assessment Regulations 1994 establish a standard procedure for the preparation and evaluation of environmental impact assessment for development activities in the RMI. The Regulations implement Part 4 of the NEPA and Section 11 of the CCA. The regulations establish the requirements for environmental assessment in the RMI including the preparation and submission to the EPA of a Preliminary Proposal and, if assessed by the EPA as being required, an Environmental Impact Assessment (EIA).

19. **Coast Conservation Act.** The Coast Conservation Act 1988 (CCA) regulates and controls development within the Coastal Zone (defined as 25 feet landwards from the mean high-water mark). It establishes the requirement to obtain a permit to undertake development activity within the Coastal Zone (Part 4) and includes the potential requirement for an environmental impact assessment (Section 11). Any major strengthening or extensions of the seawall that protects WAM and the Women's Centre will be subject to this Act. Initial consultation with the RMI EPA indicates that an environmental assessment will be required for the works under this project.

20. **Marine Water Quality Regulation.** The Marine Water Quality Regulation 1992 identifies the uses for which the marine waters of the RMI shall be maintained and protected, specifies the water quality standards required to maintain the designated uses and prescribes regulations necessary for implementing, achieving, and maintaining the specified marine water quality.

21. **Solid Waste Regulations.** The Solid Waste Regulations 1984 established the minimum standards governing the design, construction, installation, operation and maintenance of solid waste storage, collection, and disposal systems. The Regulation is intended to protect public health and safety (drinking and recreational waters) and the environment (air, land and marine). It sets out the minimum requirements for solid waste storage and collection as well as standards for disposal facilities (including waste incineration systems).

22. **Historic Preservation Act.** The Historic Preservation Act 1991 (HPA) establishes the RMI Historic Preservation Office (HPO) and sets out the basis for the identification and use of cultural and historic properties.

23. **Land Acquisition Act.** The Land Acquisition Act, 1986 allows for the acquisition of lands and servitudes for public use, with provisions for preliminary investigation, court proceedings, compensation, possession, and disposal of land, and divesting of lands. The Minister has the authority to select suitable land and issue notices to interested parties, while the High Court plays a crucial role in determining the legality of the acquisition, assessing compensation, and issuing vesting orders.

24. **Public Lands and Resources Act.** The Public Lands and Resources Act, 2008 is a crucial law that governs the administration of public lands in RMI. It defines "public land" as land within the Republic that was either owned or maintained by the Japanese government during its administration, or other lands that the Republic's government has acquired or may acquire for public purposes. The Act also asserts that all marine areas below the ordinary high watermark are government property, with certain exceptions. The Act has undergone several amendments, notably the Public Land and Resources (Amendment) Act 2016, which further clarified the definition of public lands and rights to marine areas below the ordinary high-water mark.

25. **Regulations Governing Land Modification Activities.** The Regulations Governing Land Modification Activities 1992 (RGLMA) are one of a set of regulations promulgated by the HPO to give effect to the HPA. The RGLMA provides criteria for identifying significant cultural or

historic properties and provides protection for cultural or historic properties. It includes a permit process involving consultation and potential survey of impacted sites with the HPO. Initial consultation with the HPO indicates that only projects involving disturbance to previously undisturbed land would require assessment under the RGLMA.

26. **Earth Moving Regulations.** The Earth Moving Regulations 1989 describe minimum erosion and sediment control measures, provide measures for the protection of cultural values (superseded by the RGLMA) and establishes a permit process for all earth moving activities in the RMI (including an erosion and sediment control plan). Any major strengthening or extension of the sea wall that protects the MOCIA WAM center is likely to fall under this legislation, both at the WAM site itself and at any sites from which rock is sourced.

27. **Employment Equal Opportunity Act.** The Employment Equal Opportunity Act, 2017, aims to ensure equal treatment of employees in regard to obtaining employment benefits. This act becomes relevant for our youth employment programs under the project.

28. **Public School System Act.** The Marshall Islands Public School System Act, 2013 repealed the Education Act of 1992 and established an autonomous public school system in the Marshall Islands. It set up a National Education Board and a Commissioner of Education, provided for independent personnel and financial management, and outlined the functions of Local Boards of Education. The Act also mandated all public and private elementary and secondary schools in the RMI to meet compulsory standards and engage in the process of accreditation.

29. **National Training Council Act.** The National Training Council Act, 1991 established the National Training Council (NTC) to provide for vocational and other training and human resources development for the Republic of the Marshall Islands. The Act includes provisions for the establishment of the Council, its membership, meetings, by-laws, and procedures. It outlines the functions of the Council, which include advising the RMI Minister of Education on all matters relating to vocational and job training, making grants to organizations to provide training to RMI residents, conducting surveys of employers to identify training needs and skills gaps, and more². The Act also established a National Training Fund.

30. **Child Rights Protection Act.** The RMI Child Rights Protection Act 2015 declares the rights of children and provides for their protection, promotion, enforcement, and implementation in the Republic of the Marshall Islands. The Act was enacted in accordance with the United Nations Convention on the Rights of the Child. It defines a child as any person under 18 years and outlines various forms of child abuse or neglect. The Act also establishes the Human Rights Committee and provides definitions for terms like maltreatment and narcotic drugs.

31. **Domestic Violence Prevention and Protection Act.** The Domestic Violence Prevention and Protection Act, 2011 is to prevent violence between family members and others in domestic relationships, emphasize that domestic violence is not acceptable, ensure investigation and prosecution of domestic violence perpetrators, and provide support for victims of domestic violence.

32. **Gender Equality Act.** The Gender Equality Act, 2019 is to recognize, protect, and promote the full and equal enjoyment of human rights and fundamental freedoms by women and girls, on an equal basis with men and boys. It aims to achieve gender equality and non-discrimination, incorporate international conventions, promote gender mainstreaming, and allocate resources for the realization of gender equality commitments. The Act also seeks to

empower women in various aspects of life and establish obligations for compliance with gender equality principles and norms.

33. **Rights of Persons with Disabilities Act.** The Rights of Persons with Disabilities Act, 2015 is a comprehensive legislation that affirms the equal rights and freedoms of all persons with disabilities in the RMI. It provides for the protection, promotion, and enforcement of these rights, in line with the United Nations Convention on the Rights of Persons with Disabilities. The Act encompasses a broad range of rights including constitutional rights, accessibility, equal recognition before the law, freedom from exploitation, right to education, health care, work and employment, and participation in political, public, and cultural life.

B. Environmental Assessment in the RMI

34. The Environmental Impact assessment (EIA) Regulation 1994 is the central environmental planning legislation with the aim of ensuring that environmental concerns are given appropriate consideration in decision making for all new infrastructure projects. The EIA Regulation applies a two-step assessment process to determine the level of assessment required, similar to the ADB environmental safeguard policy.

35. Initially, a preliminary proposal is required for ‘each and every proposed development activity’. The preliminary proposal is an initial evaluation to determine whether an action may have a significant environmental effect. The preliminary proposal is evaluated by the RMI EPA General Manager to determine if the action has the potential to have a ‘significant effect on the environment’. If so, a second stage of assessment is required, and an EIA must be completed. If it is determined that an EIA is required for a proposed development activity, the RMI EPA shall immediately initiate a scoping process to identify the significant issues related to the proposal and the scope of issues to be addressed. In preparing for the EIA, the proponent shall 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, CCA, HPA and *Tourism Act 1991*.

C. RMI Environmental Policy

36. RMI Government policy on protecting, managing, and promoting the sustainable use of the country’s environment and its natural resources is expressed through the RMI National Environmental Management Strategy 2017 - 2022 (NEMS)¹⁰. The NEMS was prepared in response to the 2016 State of the Environment Report (SoE) 3 which identified a deterioration in environmental quality in RMI due to increased development and limited land area. Key environmental risks identified in the SoE were sea level rise as a result of climate change, climate variability and disaster, rising population density in Majuro, decline in traditional resource management, unsustainable use of natural resources, and poor waste management and pollution control. The NEMS aims to lead efforts to strengthen the international, regional, and national coordination of the government’s efforts to respond to the issues identified in the SoE. The NEMS sets out a range of goals, targets, and performance indicators under the following themes: atmosphere and climate, land, marine, biodiversity, culture and heritage, built environment, and nuclear legacy.

¹⁰ Republic of the Marshall Islands Environment Data Portal. [RMI National Environment Management Strategy 2017–2022](#).

D. ADB Safeguard Policy Statement

37. This environmental assessment is carried out in compliance with safeguard requirement 1 of ADB's SPS to ensure that potential adverse environmental impacts are identified and avoided, and where impacts cannot be avoided, a suitable plan is prepared for them to be mitigated and managed. The SPS has the objectives to (i) avoid adverse impacts of projects on the environment and affected people; (ii) where possible; minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and (iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks. To help achieve the desired outcomes, ADB adopts eleven policy principles for guiding the assessment of projects that trigger environmental risks and impacts.

38. ADB will not finance projects that do not comply with the SPS and the host country's social and environmental laws and regulations, including those laws implementing host country obligations under international law. The SPS also contains a prohibited activities list identifying specific activities that ADB will not finance.

39. ADB categorizes projects into categories A, B, C, and FI according to the significance of likely impacts. The Project in this context is classified as category B. Category B projects are assessed to have some adverse impacts, but of lesser degree and/or significance than category A, the impacts are site-specific and can be managed or mitigated to satisfactory levels of risk. Category B projects require an IEE, the assessment concludes whether or not there will likely be significant environmental impacts warranting an EIA. If an EIA is not needed, the IEE is regarded as the final environmental assessment report. Accordingly, this assessment also constitutes an IEE and meets the requirements of the SPS.

40. This IEE has identified as far as practicable the potential environmental impacts associated with the Project, identifying measures required to mitigate or minimize the impacts. Where required, the updated EMP will specify applicable environmental quality standards or guidelines for air quality, noise, and water quality, and detail monitoring parameters, monitoring frequency, and limit values.

III. DESCRIPTION OF THE PROJECT

A. Background and Rationale

41. The proposed project aims to support the RMI government to increase skills livelihood opportunities for vulnerable women and at-risk young peoples. The rationale behind this project is based on several key issues faced by women and youth in the country. Firstly, RMI has high youth unemployment, with higher rates for young women. In 2019, roughly 41% of youth were not in employment, education, or training, with higher rates for young women (45%) compared to young men (37%), and higher rates in outer islands (45%) than urban areas (40%).

42. Secondly, harmful social and gender norms impact women's economic empowerment. Patriarchal social and gender norms in the country often place women in a subordinate cultural role, leading to low level of women's participation in the labor force. Gender-based violence (GBV) is also prevalent, with 69% of Marshallese women reporting that they had experienced physical and/or sexual violence in their lifetime. Early marriage and teenage pregnancies result in many young women leaving education or employment, with many women starting families by 20 years old (47% of women).

43. The proposed project aims to address these issues by implementing interventions supporting productive livelihood pathways for youth, particularly young women and marginalized youth, reducing harmful social and gender norms that inhibit young women's economic empowerment, and strengthening the capacity of government and civil society to implement youth and women's programs.

B. Impact, Outcomes and Outputs

44. The project is aligned with the following impacts: (i) an enabling and sustainable environment built where all youth develop their full capacity and contribute meaningfully to sustainable development (National Youth Policy 2021–2025); and (ii) gender equality and the empowerment of women progressed, with the meaningful involvement and contributions of all development sectors and civil society (National Gender Mainstreaming Policy). The project will have the following outcome: vulnerable women's and youth's skills, resilience, and empowerment increased. There will be three outputs:

45. **Output 1: Climate-resilient infrastructure assets for women and youth upgraded and expanded.** This output will upgrade, construct, and equip facilities in Majuro to support access to training and support services for vulnerable women and at-risk youth, with partial support from the Asian Development Fund (ADF) 13 thematic pool, under its strategic area on achieving the Sustainable Development Goal 5 (SDG5) transformative gender agenda. This includes renovating an existing MOCIA building that was previously a skill training center and constructing a new disability-accessible two-story facility beside it to create an expanded women's center. The center will have large, multipurpose indoor open spaces to be used for skills training, education, and community events. The center will house the offices of the government's Gender in Development Division and center operations staff, including counseling services. It will also include operating spaces for two women-focused CSOs: (i) Women United Together Marshall Islands, the country's main provider of GBV survivor services; and (ii) the Kora Fund, which supports women's economic empowerment through microcredit loans and training. The project will reconstruct a community-built seawall close to the expanded women's center to help protect the new facility as well as nearby youth and education facilities. To support college students with young children, the project will construct family-friendly facilities at the CMI including (i) a childcare center and playground for the children of students and staff, (ii) a family-friendly study area, (iii) a safe breastfeeding room, (iv) a family-friendly training space with a play area, and (v) a parent bathroom with baby-changing equipment. The project will also install solar panels and battery systems on the new and upgraded facilities, provide vehicles to be used for women and youth services provision, and prepare risk-informed operations and maintenance plans and procedures.

46. **Output 2: Women's and youth's skills for livelihood improvement enhanced.** This output will include the delivery of skills training and related support activities for vulnerable women, teenage girls and boys, and at-risk youth in urban and rural Majuro, as well as in the neighboring islands. With support from the ADF thematic pool, the project will support a monthly calendar of activities that will be delivered at the women's center (output 1), including (i) informal skills training, in areas such as financial literacy, basic bookkeeping, business planning, food safety, computer skills, and short-course vocational training; (ii) support groups and counseling sessions; (iii) careers and employment drop-in sessions, including marketing and business mentoring, (iv) health and wellness activities; (v) education sessions on topics such as parenting skills, GBV, and/or youth and women's rights; (vi) traditional elder and youth storytelling discussions, (vii) craft workshops and cultural activities; (viii) networking events; and (ix) handicrafts, food, and retail market days. The ADF 13 thematic pool will also fund the design and

delivery of a pilot poverty graduation program, which will combine skills training, mentoring, seed grants, and access to microfinance¹¹ while at the same time aiming to address negative gender and power dynamics in households.¹² Participants will include existing cash-transfer recipients (vulnerable mothers with young children) who are beneficiaries of the World Bank Early Childhood Development Project living in Majuro.¹³ The output will also deliver targeted livelihood training programs for small groups of vulnerable women and youth living in or from rural Majuro atoll and neighboring islands and atolls. These are expected to have a focus on improving food security, diversifying women's livelihoods and income, and building resilience to climate and other external shocks.

47. The output will also facilitate the participation of a small group of at-risk young men from a range of neighboring islands in foundational literacy, numeracy, and soft skills, along with traditional canoe-building skills. The canoes built as part of the project will be gifted to the neighboring islands or atoll local governments to be used by communities as a form of zero-carbon transport. To help address existing social and gender norms, the soft skills components will incorporate awareness raising and discussions on issues of GBV, family planning, challenging gender norms and peer pressure about masculinity, understanding of consent and consequences, and shared responsibility for unpaid care work. The project will conduct frequent outreach activities to identify and recruit vulnerable women and youth for project programs, collaborating closely with other government departments, schools, health centers, village leaders, and CSOs, including faith-based organizations and churches. After participating in activities and programs, the project will communicate with vulnerable participants and offer help and support to navigate their next steps in terms of employment, training, or health and wellbeing referrals. The project will complete evaluation studies to inform the design of future livelihood programs, and to share the learning outcomes of the long-term livelihood programs.

48. **Output 3: Capacity of government and civil society organizations to implement women's and youth's empowerment activities strengthened.** This output will strengthen the capacity of key stakeholders to deliver support services to vulnerable women and youth, and is partly funded by the ADF 13 thematic pool. This will include professional development for management and staff working in gender and youth affairs within MOCIA, by providing training and mentoring by long-term gender and youth advisors. Youth and women councils will be reestablished, and government staff from other ministries will be trained in gender equality and women's empowerment programming. The output will also provide training to CSOs delivering services to women and youth on topics such as fundraising, communications strategies and channels, and long-term climate risk sustainability and future planning. The project will support the government in developing a new national childcare policy, regulations, and procedures. The output will support the design and implementation of gender and youth events, such as a (i) youth arts and music festival; (ii) women and youth entrepreneurship expo; (iii) a "She Leads: Women Driving Climate Resilience" symposium; or (iv) a conference on the value of unpaid care work, featuring male champions, and interactive and engaging sessions to discuss gender norms related to unpaid care responsibilities.

¹¹ The project will be working with local nongovernment organization Kora fund who provides microcredit loans to women in RMI.

¹² The poverty graduation program is a holistic, time-bound, and carefully sequenced set of interventions to lift households from poverty through (i) social assistance to support immediate needs, such as subsistence and health services; (ii) livelihood promotion through localized market assessment and household-level enterprise and/or employment matching; (iii) financial inclusion through financial literacy and improved access to savings and financial services to promote economic resilience; and (iv) social empowerment by improving social dynamics in families and communities. Participants from programs are expected to "graduate from poverty."

¹³ World Bank. [Multisectoral Early Childhood Development Project](#).

49. The project will ensure that technical expertise is engaged to effectively design targeted skills development training to improve livelihoods, food security, and resilience for women and youth, including those living in rural areas and neighboring islands and atolls. Implementation will be supported by local training providers with previous experience in training delivery in remote areas. The government has committed to transitioning recurrent operating costs for the women's center in year 5 and year 6 of the project implementation period, ensuring that budgetary processes and commitments are in place to avoid the center being underutilized after the project. MOCIA will allocate an annual training budget and the project includes the development of a collection of business and livelihood development training packages, including instructions and teaching and learning materials, to continue with the delivery of training programs at the women's center after the project concludes. The project will develop operations and maintenance plans for project facilities, including cost-recovery mechanisms, such as renting out the training spaces for private events.

C. Project Location and Description

50. **Scope of work.** The project under Output 1 will upgrade, construct, and equip climate-resilient facilities for women and youth on existing school and government office compounds. The proposed scope of works assessed in this IEE include three components: (i) renovation of an existing building and construction of a new two-story facility to create an expanded women's center; (ii) development of a childcare center and family-friendly facilities; and (iii) reconstruction of an existing seawall to construct a new climate resilient seawall adjacent to the women's center site.

1. Women Center Renovation and Expansion

51. **Location.** The proposed MOCIA Women's Centre expansion is in Majuro proper, near the proposed seawall to be reconstructed (Figure 2). The specific site location, nominated by stakeholders, is in the Delap-Uliga-Djarrit area, within a compound with buildings owned and used by the Ministry of Education, Sports, and Training (MOEST) (also known as the Public School System) and a non-government organization (NGO) Waan Aelōñ in Majel (WAM).

52. **Existing Conditions.** The existing site layout is depicted in Figure 3 and shown in Plate 1 and Plate 2. The existing 'pink' building, constructed in 2005 with funding from ADB, is in good condition and has minimal structural issues. The existing 'pink building' is a 13.4m by 9.75m structure constructed with concrete blocks to both the exterior and interior walls as well as the foundation. The roofing has a Dutch hip roof design with timber framed truss and corrugated roofing iron fixed with roofing screws. The floors are a mixture of ceramic tiles and carpet tiles. The overall condition of the 'pink' building is very good, with minor cosmetic damage from wear and tear, however the building is structurally sound. A visual site investigation was carried out to identify if any asbestos or asbestos-containing materials (ACM) were present as part of the construction material or within the vicinity of the building. It was confirmed that there is no asbestos containing material used in the construction of the existing building or the nearby buildings within the MOEST compound.

53. An existing MOEST office that is protruding from the main MOEST building, also called PREL building (see Figure 3 'green' building), has been identified for partial demolition to make space for the proposed extension of the women's center. The existing office is 8.6m x 6.1m (52.46m²) with aluminium load bearing walls. Bracing and temporary shoring along the outer wall of the MOEST building will be needed at the time of demolition. There is no available information on the existing structural frame to analyze stability or strength adequacy. It is possible that the

existing MOEST buildings were not constructed in compliance with building standards. Therefore, the designer must verify the stability of the structural frame once demolition begins.

54. An existing 'violet' structure consists of non-engineered building constructed from mix of containers and ad-hoc structure. This building is used as a storage, and it is understood that it does not meet building code requirements.



Figure 2: Location of the proposed MOCIA Women Center and seawall



Figure 3: Existing site layout of Women Center including the MOEST building (yellow); MOCIA Women Center (pink); MOEST or PREL building (green); and container (violet)



Plate 1: Site photos of Women's Center (a) parked dilapidated cars, (b) MOCIA Women center (pink building), (c) MOEST/PREL building (green), and (d) container (violet).



Plate 2: Existing (a) water tank beside the Women's Center ('pink' building), and (b) water tank and septic tank beside the MOEST/PREL Building

55. **Proposed renovations and expansion.** The scope of works for this component include renovations of the 'pink building' and construction of a new women's center extension (highlighted in 'blue') as depicted in Figure 4.



Figure 4: Proposed Women's Center Layout Plan

56. **Proposed renovations ('pink building').** The planned light renovations of the 'pink building' include several key upgrades:

- (i) Renovating the kitchen with new cupboards and shelves for improved storage;
- (ii) Transforming the existing two-toilet bathroom into an accessible bathroom/toilet for people with disabilities;
- (iii) Upgrading the interior with new linoleum flooring and painting the interior with mold/mildew-resistant paint;
- (iv) Fixing existing electrical faults;
- (v) Installing an additional water tank;
- (vi) Repairing roof gutters and addressing roof leaks;
- (vii) Connecting the building to the water tanks of the new women's center expansion; and
- (viii) Evaluating and repairing electrical systems.

57. Renovations and improvements of the 'pink building' are expected to take approximately 6 months and will be completed in 2025 by construction contractors.

58. **Proposed expansion ('blue').** The proposed project includes the construction of a new detached two-story women's center extension (highlighted in blue in Figure 4) with a total build area of up to 824m². Detailed components and specifications are outlined in Table 1.

Table 1: New Women's Center Extension estimated components and specifications

Facilities	Estimated size (m2)	Estimated size (ft ²)	Estimated capacity	Disability Accessibility
GROUND FLOOR				
Stair	6	65		No
Verandah	49	527		Yes
Ramp up 1	10	108		Yes
Ramp up 2	53	570		Yes
Children's play space	7	75		Yes assisted
Reception	9	97		Yes assisted
Open training center and conference room	183	1970	60	Yes

Facilities	Estimated size (m2)	Estimated size (ft ²)	Estimated capacity	Disability Accessibility
Training center storage space	35	377	8	Yes
MOEST Resource Center	36	388	8	Yes
Pantry store	11	118		
Kitchen	28	301	4	Yes
Optional breastfeeding space	7	75		Yes
Female toilet and baby change area	21	226	3	No
Unisex accessible toilet	6	65	1	Yes
Male toilet	13	140	2	No
FIRST FLOOR				
Stairs	7	75		
Verandah	46	495		
Women's toilets	14	151	3	No
Men's toilets	10	108	2	No
Accessible toilet	6	65	1	Yes
Store 1	2	22		No
Store 2-3	10	108		No
Waiting/seating area	13	140		Yes
MOEST Office 1	22	237	2	Yes
MOEST Office 2	32	344	4	Yes
MOEST Office 3	29	312	3	Yes
MOEST Office 4	38	409	6	Yes
MOEST Office 5	25	269	2	Yes
Kora Fund Office	22	237	2	Yes
MoCIA office	27	291	4	Yes
WUTMI flexible office	25	269	3	Yes
WUTMI Counsellor's office	22	237	2	Yes
TOTAL	824	8,870		

59. The demolition of existing structures (highlighted in 'green' and 'violet' in Figure 3) and construction works are expected to take 12 months and will be completed between 2026–2027. Prior to the partial demolition of the existing MOEST building to make space for the women's center extension, a comprehensive structural analysis will be conducted before, during, and after demolition. This analysis should identify and remediate any structural deficiencies, including implementing necessary bracing and temporary shoring if geotechnical reports reveal soil stability issues. Structural framing should prioritize concrete for its durability and low maintenance, though steel and timber can be considered with strict adherence to fire safety standards. Given the age of the existing building that needs to be demolished, an assessment is to be conducted to

determine the presence of asbestos-containing materials (ACM). This step is crucial for ensuring safe practices and compliance with health regulations.

60. The final design will ensure adequate spacing between the old and new structures to comply with RMI building code and fire safety requirements. This compliance is essential to protect the safety of occupants and the structural integrity of the buildings.

2. Childcare and Family-Friendly Facilities

61. **Location.** The College of the Marshall Islands (CMI) is located on the Oceanside of Uliga, Majuro encompassing an area of approximately 2,440 m² (26,264 ft²) for proposed redevelopment (Figure 5). The current plan involves the demolition of existing structures as depicted in Figure 6 and shown in Plate 3, primarily consisting of two non-engineered buildings constructed from a mix of containers and ad-hoc timber. These structures do not meet building code requirements, lack resilience against disasters and climate challenges, and offer inadequate floor space and quality for the intended purposes, which include daycare rooms, and family-friendly training spaces. A 12-piece water tank adjacent to the two buildings also needs to be relocated (Plate 4).



Figure 5: Location of proposed CMI Childcare and Family-Friendly Facilities

62. In tandem with the demolition process, an assessment is to be undertaken to identify any presence of asbestos-containing materials (ACM). This assessment is crucial to ensure adherence to relevant standards and codes governing asbestos removal. The demolition plan will meticulously delineate the specific locations and portions of buildings slated for removal,

incorporating a structural evaluation and outlining the interface with new structures. The proposed redevelopment entails the construction of a new two-story, multi-use building, designed to deliver childcare services and provide family-friendly study and training spaces. This new facility will address shortcomings in the current infrastructure, providing modern, compliant, and resilient spaces for childcare, family activities, and training functions.



Figure 6: Existing site layout – the water tank (pink), dilapidated buildings (yellow), and portable event tent (dark pink and violet) will be demolished.



Figure 7: Proposed location CMI Childcare and Family-Friendly Facilities



Plate 3: Existing buildings to be demolished at the CMI site



Plate 4: Water tanks (12 pcs) at the CMI site

63. **Existing conditions.** The condition and structural integrity of the existing buildings at CMI require thorough evaluation. There is no available information on the existing structural frame to analyze stability or strength adequacy. It is possible that the existing buildings were not constructed in compliance with building standards. Therefore, the designer must verify the stability of the structural frame once demolition begins. If necessary, the addition of temporary or permanent load-carrying structural members must be assessed and incorporated based on analysis. Were asbestos containing materials to be found in existing CMI buildings, this would pose significant health risks and legal challenges. Asbestos, once widely used for its fire resistance and insulating properties, is now known to cause serious health issues, including lung cancer, asbestosis, and mesothelioma, when its fibers are inhaled. A thorough assessment and appropriate mitigation measures are essential for any renovation or demolition project.

64. **Proposed construction.** The proposed CMI childcare and family-friendly facilities include a new two-story building, featuring a total built area of up to 1,353m² and an external ramp for PWD of 51m² and an external stair of 18m². The site's development will also include the integration of a playground area. The ground floor will accommodate the childcare center and family-friendly study space, while the first floor will house the family-friendly training center. Table 2 provides estimated detailed components and specifications.

Table 2: CMI Childcare and Family-Friendly Facilities estimated components and specifications

Facilities	Estimated size (m ²)	Estimated size (ft ²)	Estimated capacity	Disability Accessibility
GROUND FLOOR				
Family Friendly study area	49	527	30	Yes
Pre School-Learning / Playing area	105	1130	30	Yes
Combined Infant & Toddlers activity/play space	117	1259	40	Yes
Combined Infant & Toddler sleeping room	31	334	20	Yes
Staff Female Toilet 1	6	65	2	No
Staff Male Toilet 1	6	65	2	No
Unisex Accessible Toilet	6	65	1	Yes
Staff Female Toilet 2	2	22	1	No
Staff Male Toilet 2	4	43	1	No
Family Friendly study area Toilets	8	86	2	No
Preschool Toilets	17	183	4	Yes
Private breastfeeding space	7	75	2	Yes
Toddlers Toilets	15	161	3	Yes
laundry	8	86	3	Yes
Kitchen	18	194	2	Yes
Staff administration area	22	237	3	Yes
Laundry	8	86	3	Yes
Ramp to the first floor for PWD	51	549		Yes
Stairs	18	194		No
Verandah	63	678		Yes
Storage rooms	10	108		No
Fenced playground area	350	3767		Yes
FIRST FLOOR				
Family friendly training Center	312	3358	100	Yes
Children play area	56	603		Yes
Kitchen	17	183		Yes
Storage room	22	236		Yes
Male Toilets	6	65	2	No
Female Toilets	6	65	2	No
Accessible (PWD) Toilet	6	65	1	No
Baby Change Space	7	75	2	Yes
TOTAL	1,353	14,564		

65. The demolition of existing structures and construction is expected to take 12 months and will be completed between 2026-2027.

3. Seawall and Revetment

66. **Location.** As depicted in Figure 2, the proposed site for the seawall and revetment work is situated in Majuro proper, in the Delap-Uliga-Djarrit area, within an area sub-leased and used by WAM, a local NGO focused on empowering at-risk youth through traditional canoe-building. It is also within a compound consisting of buildings owned and used by MOEST. The existing seawall spans 48m (157.4 ft) in length and stands at a height of 2m (6.6ft), as illustrated in Figure 8. Plans for the seawall and revetment enhancements have been meticulously outlined in the site plan and accompanying images provided by stakeholders. The nominated locations for these enhancements have been carefully selected, with due consideration given to site-specific factors. Comprehensive assessments have been conducted to ensure the suitability and efficacy of the proposed enhancements, with no additional comments or concerns raised by stakeholders regarding the site specifics. The proposed enhancements aim to bolster coastal protection measures, mitigating erosion and safeguarding the surrounding environment and infrastructure.

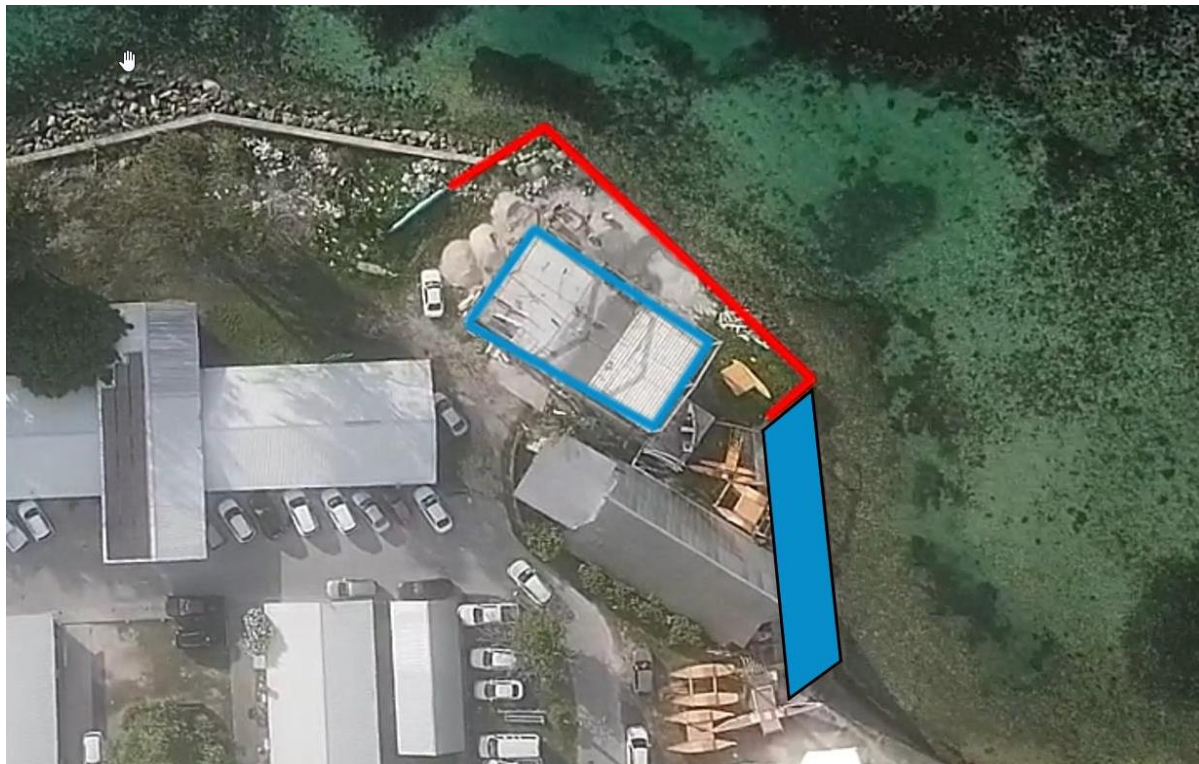


Figure 8: Existing seawall (red) and revetment (blue)

67. **Existing conditions.** Through site visits and consultations, it was reported that WAM trainers may have built the current seawall, and it may not meet local building standards (Plate 5). A site reconnaissance¹⁴ was conducted, and the findings suggested the following:

¹⁴ Cakobau, S. (2024). Survey Baseline Report. Retrieved April 17, 2024.

- The seawall may be located on reclaimed land with a recommendation to obtain official records.
- Parts of the seawall are simple masonry, and parts appear to be hollow with no rebar.
- The cement block wall is 100mm (0.33 ft²). Cement blocks are generally used for building internal walls, not suitable for seawalls.
- Coastal revetment needs to be enhanced.

68. It was assessed that the current seawall is in poor condition, especially after the 2022 fire, and has the potential to collapse and fail in the near future.¹⁵ The existing seawall shows significant structural deterioration, indicating it is nearing the end of its functional lifespan. This is evidenced by visible signs of subsidence and damage, although more comprehensive onsite inspections are necessary for a thorough assessment. The original design of the seawall did not account for modern challenges such as rising sea levels, and it lacks documentation of its design life and return period, typically set at 50 years for such structures. Enhanced coastal revetment is now crucial due to increasing sea levels, storm frequency, and coastal erosion. The seawall requires replacement to protect WAM infrastructure assets and will provide additional protection to the existing and new women's center.

69. **Proposed rehabilitation.** The project will reconstruct the existing WAM's seawall. A new compliant Seawall L1 sloping coastal protection structure with Basalton Quattro blocks of 40cm (1.32ft) height as armor protection will be built, with a 30cm (1ft) tall concrete wall on top with drainage. The soil behind the new wall is to be adequately compacted. Adding to the existing ramp is a new low-sloping canoe ramp to facilitate safe and ease of access of canoes. Additional 30cm (1ft) tall concrete wall south and southeast of the WAM structure to provide additional height for coastal protection. Table 3 details the components and specifications.

Table 3: Seawall components and specifications

Component	Length (m) and (ft)	Width (m) and (ft)
Seawall		
Below ground L1 sloping coastal protection structure	48	5.0
Above-ground concrete wall	48	10.0
Canoe ramp	20.0	5.0

70. The reconstruction of existing structures is expected to take 10 months and will be completed between 2026-2027.

¹⁵ Cakobau, S. (2024). Survey Baseline Report. Retrieved April 17, 2024. Gartner, M. (2024, April 20). Seawall Option.



Plate 5: Existing Seawall

D. Project Development

71. **Pre-Construction Phase.** The pre-construction phase consists of planning, financing as well as conceptual and detailed engineering works. It is also at this phase that engineering and environmental studies, such as this IEE, are undertaken to facilitate and inform decisions made at the detailed design phase with a view to ensure these decisions are being carried out into the construction phase. This phase also entails the following activities: (i) sourcing of suppliers, contractors, and other service providers; and (ii) acquisition of necessary permits and licenses.

72. To ensure the management measures specified in this IEE are implemented, the following activities should be undertaken during the pre-construction phase:

- *Asbestos-Containing Materials (ACM) Assessment and Mitigation.* Asbestos identification and management in buildings is crucial due to health risks. The process involves initial surveys, visual inspections, and asbestos surveys. Certified labs will confirm asbestos' presence. Mitigation measures must be implemented by licensed professionals, this will include an Asbestos Management Plan and training. Control measures during abatement include personal protective equipment (PPE) use and clear signage. Air monitoring and visual inspections post-removal are necessary. Regulatory compliance and comprehensive documentation are crucial for a safe environment.
- *Geotechnical Assessment.* A geotechnical assessment is crucial for the successful construction of the proposed infrastructure. It will identify and address potential soil issues, assess load-bearing capacity, and provide foundation design recommendations. The assessment will also consider potential settlement, slope stability, erosion control, and seismic considerations. Understanding soil composition, monitoring groundwater levels, implementing erosion control measures, and addressing soil contamination is essential to ensure a successful upgrade.
- *Drafting and approval of the contractor's Construction Environmental Management Plan (CEMP) and worker's Code of Conduct.*
- *Consultation and training activities relevant to implementation of CEMP and worker's Code of Conduct.*

73. **Demolition and Construction Phases.** An overview of the generally anticipated activities is provided below. The complete methodology of demolition and construction activities will be provided once contractors are engaged.

- Demolition works involves tearing down of existing buildings or civil engineering structures discussed in the previous sections. Where required, a pre-demolition survey should be undertaken to assess the risks of the work involved.
- Site development works includes earthmoving, clearing, excavation, fill replacement, grading and other ground preparation works. Given the atoll nature of Majuro, grading will involve special considerations to protect against sea level rise and storm surges.
- Construction activities include the construction and installation of the proposed buildings and structures discussed in the previous sections. Design and construction must adhere to national laws, regulations, standards, and codes, including the RMI National Building Code and the International Code Council Building Code. Designers should create a comprehensive design criteria document with input from national stakeholders, encompassing all relevant disciplines, listing applicable standards and design parameters, and specifying the selected climate scenario. A literature review will be conducted to address any hazard parameters not covered by building codes and standards. Compliance with building codes and fire safety requirements is crucial for

occupant safety, property protection, and insurance coverage. Emergency exits, fire alarms, and sprinkler systems are mandatory for safe occupant evacuation during emergencies. The ground floor and equipment must be set at an elevation at or above the design flood height according to building codes and standards.

74. **Implementation schedule.** The project will have a six-year implementation period, from June 2025 to June 2031. However, the construction of the proposed infrastructure is expected to take 10-12 months and will be completed between 2026 and 2027. The estimated infrastructure completion date and handover is June 2028.

IV. DESCRIPTION OF THE ENVIRONMENT (baseline conditions)

75. This section characterizes the existing environment in which the development will take place. The description of the environment is characterized in terms of physical, biological, and socioeconomic environment. Baseline conditions are described as much as possible in quantitative terms and, where not possible, in qualitative terms. The description makes use of relevant information obtained from government resources supplemented and updated by additional information collected via surveys undertaken during the feasibility study and due diligence.

76. **Project impact area.** The project area of influence is defined as all parts of the physical, biological, and socioeconomic environment that could be affected by construction and operation phase project activities. The project involves the demolition of existing buildings and structures and construction in its place a new and more climate-resilient infrastructure. Therefore, impacts on the projects' direct area of influence are not anticipated as the sites are classified as extensively modified and highly disturbed areas.

77. The sensitive receptors surrounding the project site that are located within the indirect area of influence include school premises, churches, government offices, business establishments and natural body of water adjacent to the WAM seawall. Results of a marine baseline survey indicated that the indirect area of influence of the WAM seawall is deemed of low ecological value. The project impacts are considered temporary and manageable as discussed in Section V of this report; hence, significant impacts to the sensitive receptors are not anticipated.

A. Physical Environment

1. Physiography

78. Majuro is the capital and largest city of the Marshall Islands, located in the Pacific Ocean. It is an atoll in the Ratak (eastern) chain of the Marshall Islands (Figure 9). The atoll comprises 64 islets on an elliptically shaped reef 25 miles (40 km) long and has a total land area of 4 mi² (10 km²).¹⁶ As with other atolls in the Marshall Islands, Majuro consists of narrow land masses. It has a tropical trade wind climate, with an average temperature of 27 °C (81 °F). The atoll has been inhabited by humans for at least 2,000 years and was first settled by the Austronesian ancestors of the modern-day Marshallese people.¹⁷ The main population center, Delap-Uliga-Djarrit (DUD), is made up of three contiguous motus. At the western end of the atoll, about 50 km (30 mi) from DUD by road, is the island community of Laura, an expanding residential area with

¹⁶ Majuro | Marshall Islands, Map, & Population | Britannica. <https://www.britannica.com/place/Majuro-atoll-Marshall-Islands>.

¹⁷ Majuro - Wikipedia. <https://en.wikipedia.org/wiki/Majuro>.

a popular beach. Laura has the highest elevation point on the atoll, estimated at less than 3 meters (10 feet) above sea level.¹⁸

2. Climate

79. Majuro has a tropical marine climate (Figure 10). Two seasons are recognized; a relatively dry windy season from around December to April when the northwest trade winds dominate, and a wet calm season from May to November when the trade winds weaken. The Intertropical Convergence Zone (ITCZ) results in relatively high rainfall for most of the year in Majuro (average annual rainfall ~3,300 mm); however, rainfall decreases significantly in the atolls to the north (average annual rainfall ~ 1,250 m). Temperature is constant throughout the year with seasonal changes only around 1 °C and strongly tied to changes in the surrounding ocean temperature. Land temperatures are strongly tied to changes in the surrounding ocean temperature. Humidity is also relatively high (+75%) and constant throughout the year.

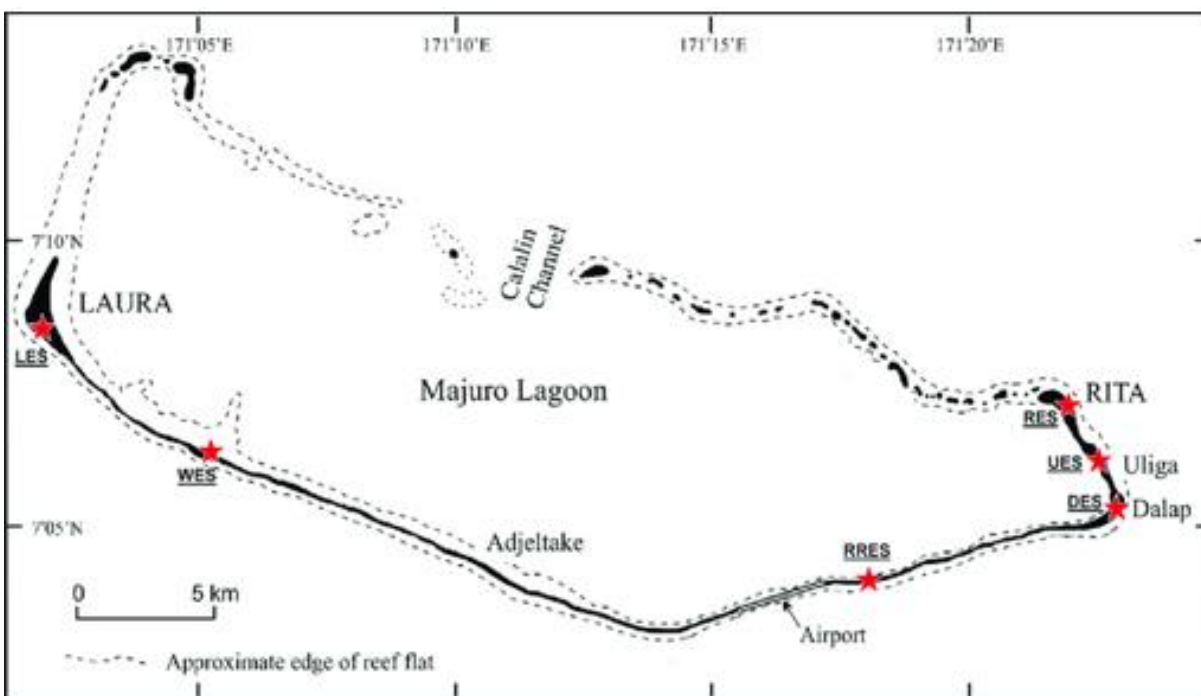


Figure 9: Majuro Atoll ¹⁹

¹⁸Geography of the Marshall Islands Wikipedia. https://en.wikipedia.org/wiki/Geography_of_the_Marshall_Islands

¹⁹ <https://www.infomarshallislands.com/majuro-rmi-maps/>

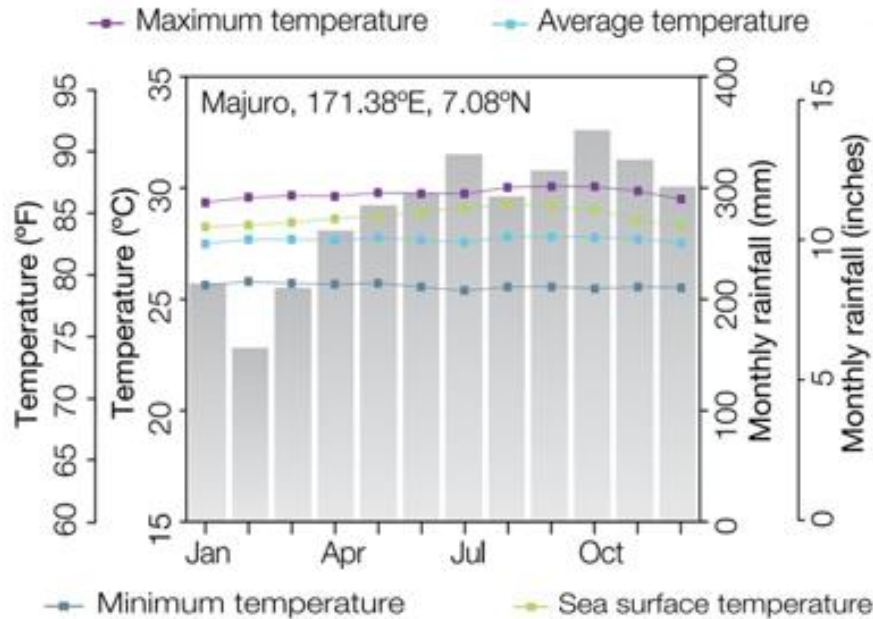


Figure 10: Seasonal rainfall and temperature at Majuro

80. The climate varies considerably between years due to the El Niño-Southern Oscillation (ENSO). During severe El Niño events, rainfall can be suppressed by as much as 80 percent with the dry season beginning earlier and ending much later than normal. Droughts are also common and generally occur in the first four to six months of the year following an El Niño.

81. RMI is subject to typhoon season generally from June to November. There were 78 typhoons recorded either developing in or crossing the RMI exclusive economic zone in a 33-year period between 1977 and 2010 at an average of 22 typhoons per decade. The intensity of typhoons is associated with ENSO with higher sea temperatures to the east of RMI during an El Niño allowing more intense typhoons to form.

82. Typhoons and tropical storms have historically caused widespread destruction in the RMI and on Majuro. Intense coastal development activities have weakened the natural resistance of the Majuro Atoll to coastal hazards. In addition to wind damage caused by typhoons, storm surges and higher than normal sea levels associated with typhoons and tropical storms frequently cause flooding on Majuro, particular in the DUD area that is extremely prone to storm surge induced flooding and wave impacts.

83. Sea level is also generally higher around the Marshall Islands during La Niña events, with three of the top 10 water levels recorded at Kwajalein (north of Majuro) occurring during La Niña and none during El Niño (Australian Bureau of Meteorology and CSIRO, 2011).²⁰ Tide gauge data shows the strong annual variability in tide heights and indicate that ENSO events are a significant component of high-water levels. The Weather Service Office has recorded that roads in both Majuro and Ebeye are affected by significant inundation on almost every equinox tide during La Niña conditions. During December 2008, a state of emergency was declared following weeks of high seas which resulted from storm surges coinciding with high tides and two tropical

²⁰ Pacific-Australia Climate Change Science and Adaptation Planning Program— Current and Future Climate of Marshall Islands 2015.

depressions.²¹ The populated areas of Majuro and Ebeye suffered damage to roads, houses and other infrastructure on the low-lying atolls. A similar event occurred in June-July 2013, mainly affecting Majuro. The prevalence of typhoon and tropical storm induced flooding has implications for the design of buildings and seawall at the WAM site.

3. Climate Change

84. The International Panel on Climate Change (IPCC) recognizes that developing countries and in particularly small island developing states such as the RMI, are particularly vulnerable to climate change. The Pacific-Australia Climate Change Science and Adaptation Planning Program provides the following summary of projected changes to RMI's climate over the period until 2100:

- (i) Sea level will continue to rise.
- (ii) Ocean acidification is expected to continue.
- (iii) The risk of coral bleaching is expected to increase.
- (iv) Wave height is projected to decrease in the dry season and wave direction may become more variable in the wet season.
- (v) Annual mean temperatures and extremely high daily temperatures will continue to rise.
- (vi) Average rainfall is projected to increase, along with more extreme rain events.
- (vii) Droughts are projected to decline in frequency.
- (viii) Typhoons are projected to be less frequent but more intense.
- (ix) El Niño and La Niña events will continue to occur in the future, but there is little consensus on whether these events will change in intensity or frequency.

85. Several studies into climate change in the Pacific have included data from Majuro in their analysis. Key findings of these studies relevant to Majuro and this project include:

- (i) Sea level rise is occurring at a rate of 6.5 mm per year over the life of the project, with sea levels expected to rise 22-26 cm by 2050.²²
- (ii) A 10 cm rise in sea level will lead to a three-fold increase in the frequency of storm flooding (J.R. Hunter pers comm).
- (iii) The flooding frequency increases in an exponential manner i.e., a 20 cm increase level leads to a nine-fold increase in the frequency of storm flooding (J.R. Hunter pers comm).
- (iv) Sea temperature increases will lead to increased storm intensity.

4. Geology

86. The atolls of the Marshall Islands are made up of calcareous remains of coral growth that have accumulated over millions of years on the peaks of now submerged mid-oceanic volcanic islands.²³ The earliest of the Marshall Islands atolls began to form on volcanoes about 70-80 million years ago at the end of the Mesozoic Era. Most atolls of the Marshall Islands are true atolls and consist of an irregular shaped reef-rim with numerous islets encircling a lagoon with water depths that can reach 40 - 80 m. The islets are more prevalent on the windward side. Individual

²¹ <https://www.unocha.org/sites/unocha/files/dms/Documents/2009-2010%20Biennium%20Final.pdf>

²² Pacific-Australia Climate Change Science and Adaptation Planning Program 2014 Climate Variability, Extremes and Change in the Western Tropical Pacific 2014, Chapter 7. Marshall Islands, Table 7.7, RPC8.5, very high emissions.

islets are usually separated by small reef passes or surge channels which provide passages for the movement of boats and allow the circulation of sea water between the ocean and lagoon.

87. The coral islets are made up largely of remnants of the original reef platform, plus the carbonate remains of marine plants and animals that are cast up by storm surges and extra high tides. The carbonate material either remains loose or cemented in place.

5. Soils

88. The soils of the RMI are generally poor and include exposed limestone rock, beach rock or reef rock, sand, gravel, loamy sands, acid peat soils, swamp or hydromorphic organic soils, taro mucks, and artificial soils.²⁴ According to soil surveys in Majuro and several other islands in the Ratak chain by the US Department of Agriculture - Natural Resources Conservation Service, the main soil type is the Majuro series. The Majuro series consists of very deep, somewhat excessively drained soils that form in water deposited coral rubble and sand. They are normally found on slopes of 0-2% with the soils sandy-skeletal and carbonate in composition.

6. Water Resources

89. There are no significant surface freshwater resources on Majuro or elsewhere in the RMI, with freshwater sourced for the atoll from two sources: the Laura groundwater lens (~30-40 km from DUD) and the airport catchment (~11 km from DUD).²⁵ In times of normal rainfall, the airport is Majuro's main supply, supplemented by the Laura groundwater Lense, with Majuro dependent on the Laura groundwater lens during droughts. Aside from the Laura groundwater lens, there are no other significant groundwater lenses on Majuro.

90. The Laura groundwater lens (the Ghyben-Herzberg²⁶ lens) is a basal aquifer or freshwater lens and its water quality varies from somewhat fresh to brackish. The lens is recharged by rainfall that percolates through the highly permeable coral soil. A variety of factors including elevation, geology, hydraulic characteristics of the aquifer, and the amount of water use, and rainfall influence the height of the freshwater lens. Storm surges and tides that inundate islands can result in saltwater incursion of the freshwater lens. This resource is not seen as a sustainable water source for Majuro as it is chronically overdrawn, polluted with agricultural run-off and septic tank seepage, and property rights are disputed.

B. Ecological Environment

1. Terrestrial Ecosystem

91. **Flora.** The indigenous flora species present on Majuro and most of the RMI is limited to a small set of species that are able to withstand periodic inundation (e.g. during typhoons), salt spray and poor-quality soils. The flora of RMI has also been altered by thousands of years of human interaction and more recently by military activities during World War II and conversion of

²⁴ *The Marshall Islands: environment, history and society in the atolls* / edited by James P. Terry and Frank R. Thomas. – Suva, Fiji: Faculty of Islands and Oceans, The University of the South Pacific, 2008.

²⁵ K. Oleson. 2012. [Cost-Benefit Analysis of freshwater security options for Republic of the Marshall Islands being considered under PACC](#). Final Report.

²⁶ De Wiest, R.J.M. (1998). Ghyben-herzberg theory. In: *Hydrology and Lakes. Encyclopedia of Earth Science*. Springer, Dordrecht. https://doi.org/10.1007/1-4020-4513-1_104.

land to agroforestry. As a result, no record remains of the original flora and vegetation of the Marshall Islands.

92. Of the +724 plant species that have been recorded from RMI only 342 (47%) are native, of which only ~80 is terrestrial. Of these, only one terrestrial flora species is known to be endemic to the Marshalls, a grass *Lepturus gasparricensis*. Two other terrestrial species, another grass, *Lepturopetium Marshallese*, and a false spider lily, *Crinum bakeri*, are endemic to the Marshalls along with other parts of Micronesia. There are also three species of regionally endemic liverwort.

93. RMI has a stable forest cover that has changed very little in the last 25 years, however, only a few RMI atolls hold the last remaining native forest ecosystems. Overall, RMI has about 70% total forest cover, which includes native forest, agroforest and coconut plantations. Fourteen (14) percent of land cover area is listed as barren lands, which includes coastal areas and sand spits. About 12% of the landscape is urban land including roads and infrastructure, mostly on Kwajalein and Majuro (49% urban), and about 4% is non-forest vegetation including rangeland and agricultural lands.

94. Non-urban areas of Majuro are generally covered with agroforest consisting of a mixture of coconut (*Cocos nucifera*), breadfruit (*Artocarpus altilis*), pandanus and banana trees, shrubs, and herbaceous species, with many coconut-breadfruit plantations probably established in the late 1800s. Due to low soil fertility, there are few crops that can be grown in the Majuro series soil. Indigenous vegetation on Majuro tends to be limited to a narrow band along the ocean or lagoon shoreline, or as minor understory species in the Cocos Artocarpus groves.

95. In addition to the dominant agroforestry plantations, the RMI Office of Environmental Planning and Policy Coordination (OEPPC)²⁷ and Mueller-Dombois and Fosberg²⁸ identifies three terrestrial vegetation groupings across RMI:

- (i) Urban environments and homesteads generally have low biodiversity with a high proportion of introduced species and weeds. Although some native species may be present, they have generally been replaced by a few species of naturalized or planted species. The vegetation surrounding the seawall, women center, and CMI are typical of urban environments.
- (ii) Mixed broadleaf forests are the most common type of vegetation in undisturbed areas of RMI often occurring as wind breaks on the windward side of islets. Mixed broadleaf forest generally consists of a relatively few species of trees, shrubs and herbs.
- (iii) Monodominant communities consist of a single dominant tree species or pure stands of single species. They are likely formed in response to a disturbed (stressful) environment and the relatively few species occurring in RMI. Common monodominant communities in the RMI and recorded from Majuro include: *Tournefortia argentea* (and combination of *Pisonia grandis* – *Tournefortia*), *Neisosperma oppositifolia*, *Pemphis acidula* and *Scaevola servicea*.

96. **Fauna.** Information relating to the native, endemic and threatened species found in the RMI is inconsistent. The document has used records presented by the RMI Biodiversity Clearing House Mechanism maintained by the OEPPC. Endemic terrestrial fauna recorded in from Majuro include seven species of insects (two Homoptera, four Coleoptera and one Diptera), one land snail

²⁷ <http://biormi.org/index.shtml?en/ecosystems.shtml>.

²⁸ Vegetation of the Tropical Pacific Islands. Dieter Mueller-Dombois F. Raymond Fosberg, 1998 Springer Science+Business Media New York.

(*Assiminea nitida marshallensis*) and the Ratak Micronesian Pigeon (*Ducula oceanic radakensis*). The diversity of terrestrial fauna on RMI is low. Insects including some 600 species of Arthropod, reptiles (19 species of lizards) and land crabs are all common together with rodents, dogs, cats, pigs, fowl and goats.

97. Around 106 species of avifauna have been recorded from RMI of which 19 species are native and nest in the RMI and 78 are migratory and the remainder visitors. The three most commonly occurring families are the Scolopacidae comprising 23 species of sandpipers and relatives, the Laridae comprising 15 species of gulls and terns, and Procellariidae comprising 14 species of shearwaters and petrels.

98. RMI supports a diverse assemblage of marine fauna including over 1000 species of fish, 1600 species of mollusk, and more than 250 species of algae and stony corals. Marshallese are relying heavily on inshore reef fisheries for subsistence. Monitoring of reef health at Majuro as part of the 2016 SoE Report found reef health indicators such as live coral cover, species diversity and fish biomass indicated that the inshore reef environment on Majuro was in relatively good condition. The report noted that Coral cover around Majuro was suffering from the effects of a bleaching event in 2014, the recovery from which is hampered by overfishing of herbivore fish population. Lagoon water quality in Majuro is also monitored and results showed significant deterioration since only 32% of the 15 sample sites met standards for recreational use. Poor water quality is likely a result of an increase in population density on Majuro leading to an increase in nutrient levels (human and animal sewage) and sedimentation (erosion). Turtles and cetaceans are known to occur in the waters of the RMI though very little information is available on population.

2. Marine Ecosystem

99. RMI's geomorphological structures consist of only coral atolls and raised limestone islands that are surrounded by an outer barrier reef which is interrupted at intervals by water passes allowing water to enter the lagoon.

100. Coastal resources near the urban areas of Majuro and Ebeye are over exploited. Inappropriate and unsustainable fishing practices are being employed. These practices have led to increased competition between resource users and have accelerated resource depletion, habitat alteration, degradation and in some cases destruction of the habitat. Coastal degradation due to poor land use management practices, sand mining and dredging operations (terrestrial and marine), land reclamation (ocean and lagoon areas) and pollution, especially in the urban centers of Majuro and Ebeye, is a growing concern for the country. Coastal foreshore and intertidal shallow water lagoon areas within Majuro lagoon have been significantly altered with large areas reclaimed for both private and commercial use.

101. Coral reefs and their associated ecosystems and biomes are the only shallow marine feature of the nation. All major types of coral reefs are found within the RMI, including barrier reefs, fringing reefs, large lagoons and submerged reefs. These biomes include mangrove forests (albeit restricted to several atolls only), sea grass beds, algal beds, and foraminifera and coral sand lagoons.

102. The basic tide parameters throughout the Marshall Islands includes a maximum tidal variation of less than 2 m (meso-tidal) and are semi diurnal (2 tides a day) with a diurnal inequality and considerable daily variability in amplitude. The annual range of sea water surface temperature ranges between 27-30 °Celsius. Inclement weather systems (e.g. tropical storms)

have a marked impact on tidal height and cause increased coastal erosion if they coincide with high water periods.

103. The nation has no permanent rivers or streams. Groundwater seepage is the main mechanism by which dissolved contaminants and nutrients move from the terrestrial environment to the marine. In general, there is no surface freshwater runoff from the atolls due to their low-lying, porous nature and small land areas, however runoff can occur in urban environments where hard surfaces predominate.

104. Atolls within the RMI shows the typical morphology of a coral reef associated with a Pacific atoll from the sea ward side to the lagoon and include: outer reef drop off; lower and upper outer reef slope; reef crest and edge (including spur and groove formation); subtidal and intertidal reef flat; beach rock and sand rubble beach; island; beach rock and sand/coral rubble beach; intertidal and subtidal reef flat; lagoon reef edge; lagoon reef slope; and lagoon proper.

105. The morphological reef areas associated with the project sites include the marine habitats associated with the inshore lagoon environments including the beach rock and sand/coral rubble beach (reclaimed), intertidal and subtidal reef flat and lagoon proper. The project's direct area of impact is restricted to the coastal foreshore and upper areas of the intertidal reef flat only, the former being reclaimed by previous reclamation activities.

3. Threatened and Endangered Species

106. The International Union for Conservation of Nature (IUCN) Red List of Threatened Species records 3,248 species from 331 families and seven phyla listed as potentially occurring within the west Pacific marine region. This includes eight species that are critically endangered (facing an extremely high risk of extinction in the wild) including two sharks, one turtle, two sawfish, one stingray, one coral and one type of mangrove and 43 that are endangered (facing a very high risk of extinction in the wild) including sharks, rays, wrasses, sea snakes, sawfish, and the green turtle (*Chelonia mydas*). Some 290 species are also listed as vulnerable and 234 as near threatened. These include several species of sharks and rays, sea snakes, whales, marine turtles (including hawksbill, leatherback and loggerhead) and corals from the families Acroporidae, Agariciidae, Dendrophylliidae, Euphyllidae, Faviidae, Helioporidae, Milleporidae, Mussidae, Oculinidae, Pocilloporidae, Poritidae and Agariciidae.

107. The RMI is reported to have a total number of 5812 flora and fauna of which 1524 are native species (26.1%) with the majority of the nation's land native species are crabs (e.g. hermit crabs or *Coenobita sp.*). The coral reefs of the nation host 342 hard coral species and 880 fin fish species.

108. Endemism is low, recording 57 species in total throughout the nation, only four species have been assessed by the IUCN of which three are endangered and one is extinct. Eniwetok atoll has eight endemic species; Arno and Kwajalein have four; while Ailinglaplap, Bikini, Ebon, Jaluit and Rongerik atolls have one endemic species. A number of endemic species have been recorded including the rare Pacific elkhorn (*Acropora palmata*) hard coral species only found to date on Arno atoll from one section of the outer reef approximately 2 km in length within 2-3 m of water.

109. The IUCN Red list categorizes 2,131 species within the RMI, including one (1) Critically Endangered (CE) species (Hawksbill Turtle or *Eretmochelys imbricata*), twelve (12) Endangered

(EN) species, 88 vulnerable (VN), 123 Near Threatened (NT), three Lower Risk (Conservation dependent), 70 Data Deficient (DD) and 835 of Least Concern (LC).

110. The RMI government recognizes 61 species or subspecies to be considered for conservation within the nation including 13 nationally endangered or critically endangered species (five marine mammals, three birds, and five marine reptiles: one being critically endangered – hawksbill turtle); and five vulnerable species: one bird, one shark, three arthropods, (*Tridacna gigas* and *T. derasa*) giant clam species, and the Triton's shell (*Charonia tritonis*), and one extinct species, the Wake Rail (*Gallirallus wakensis*).

111. The 18 threatened species represent 31% of total species considered for conservation within the RMI. The other 43 species are listed as Near Threatened, Low Risk or (with conservation measures), Data Deficient or Least Concern. RMIs threatened species list includes the endangered, vulnerable, and critically endangered – species, and most are found in the marine environment, with terrestrial plants making up just 0.5%.

112. The RMI government has made initiatives to establish legislation to protect 19 endangered species: 18 are marine and one terrestrial species. Other threatened species are protected by individual atolls and local government jurisdictions. Local atoll governments set restrictions on land and near-shore marine resources, which include the conservation of biodiversity. The Marshall Islands Marine Resources Authority (MIMRA) provides advice and technical assistance to local governments.

113. Four marine turtle species are native to the RMI, including the Leatherback (*Dermochelys coriacea*) and Olive Ridley (*Lepidochelys olivacea*), which are considered vulnerable; the Green Turtle (*Chelonia mydas*), which is considered endangered, and the Hawksbill Turtle (*Eretmochelys imbricata*), which is critically endangered. In addition, 17 cetacean species are listed by the IUCN as being found in the waters of the RMI including the sperm whale (*Physeter macrocephalus*), which is considered vulnerable.

114. Birdlife International has identified an Important Bird Area (IBA) on Majuro associated with the conservation of the Micronesian Imperial-pigeon *Ducula oceanica ratakensis* subspecies. The IBA includes remote islets, the islets in the Northeast corner of Majuro atoll, from Calalen to Denmeo and do not include the DUD' administrative.

115. The project sites are a highly modified environment that does not support high biodiversity values. While the only endangered terrestrial species, Micronesia Forest Skink (*Emoia boettgeri*), has been recorded historically from Majuro (pre 1950s), no current records exist. It is considered possible that it still occurs on Majuro but only in remote outer islets. The WYSER project does not include areas of critical habitat for this species.

4. Protected Areas

116. The RMI has been active in the management and protection of its marine and terrestrial resources through a government, traditional owner, and community partnership. This is regulated by the Protected Areas Act (2015) and updated Regulations (2020) which has resulted in a Protected Area Network (PAN) system which is housed within the Marshall Islands Marine Resources Authority (MIMRA). The function of PAN is to expand on past management and protected area interventions to ensure a sustainable and resilient nation, where natural and cultural resources are effectively managed and conserved for the future generations. There are four types of PAN protected areas and these include:

- (i) Type I Subsistence only. This area is managed for subsistence non- commercial use. In international standards, this relates to the IUCN Category VI Managed Resources Protected Area.
- (ii) Type II Special Reserve. This area is subjected to a high level of protection, and occasionally to a very low level of subsistence or special occasional activity. In international standards, this relates to the IUCN Category Ib Wilderness Area e.g., are the atolls of Ailinginae and Bikini that have high levels of protection and restriction on human activities.
- (iii) Type III Restricted and Protected Area. This area has total restriction subject to no activities, either within a large, protected area or in an identified protected area.
- (iv) Type IV Traditional Mo. This area includes either parts of land, a whole island, or a reef area that is managed and restricted through the practices of Mo by chiefs (Iroij) only.

117. Fifteen (15) atolls within the country, including the Majuro Atoll, are currently managed under the PAN (Table 4). Several atolls are currently working with the communities and traditional owners to finalize their atoll specific protected areas. Wotje atoll's protected area is proposed as a Conservation Area.

118. In total, 5388.4 km² and 33.59 km² marine and terrestrial areas respectively are protected within the RMI, equating to 0.27% and 11.9 % of total marine and terrestrial areas respectively. In addition, since 2010 the RMI has declared all marine waters to be a shark sanctuary prohibiting shark fishing and the release of all shark bycatch.

Table 4: RMI Protected Area List

Atoll	Designation	Reported Terrestrial Area km ²	Reported Marine Area km ²	IUCN Category
Bikini	Conservation Area	2,120.8	2,032.87	Ib
Ailuk	Conservation Area	25.13	24.11	VI
Rongelap	Conservation Area	2,912.76	2,787.48	VI
Namdrik	Conservation Area	26.59	16.19	VI
Rongerik	Conservation Area	1,047.87	1,002.38	VI
Jaliut	Conservation Area; Ramsar Site	201.93	197.42	VI
Mili	Conservation Area			
Bokaak	Other Area	106.97	0	Ia
Kwajalein	Conservation Area	7.77	7.77	Ib
Bikar	Other Area	56.31	0	Ia
Ailinginae	Conservation Area	1,086.58	1,024.74	Ib
Majuro	Conservation Area	2.83	0	Ib
Namdrik	Ramsar Site – Wetlands	26.59	16.19	–
Arno	Conservation Area	71.45	62.25	VI
Likiep	Conservation Area	0.32	0.31	VI

5. Marine Benthic Baseline Survey

119. A marine benthic habitat and ecosystem assessment was undertaken adjacent to the proposed WAM seawall in Majuro Atoll on 25 May 2024 using free diving (snorkeling) qualitative

and quantitative benthic habitat and resource assessment scientific visual survey methods. Two free dives (FD) were undertaken within the proposed sites, which included the project's perceived direct area of influence (FD1) and the project's indirect area of influence (FD2), see Figure 11. The assessment included photo and video documentation of the shallow water benthic habitats including the shoreline and inshore intertidal and subtidal marine ecosystems. The field assessment was undertaken during daytime hours.

120. This section provides a summary of the marine benthic survey results, which is detailed in Appendix D.



Figure 11: Free Diving sites (FD1 and FD2) assessed for the proposed seawall rebuilding at the WAM site during the marine benthic assessment

121. **Marine and foreshore site description.** The WAM seawall and revetment site is located within the inner lagoon in the southeastern corner of Majuro atoll (indicative coordinates are (7° 05' 11.7" N and 171° 22' 18.9" E) and is approximately 0.9 km west of the national capital building and 10 km east of the airport. The existing seawall is approximately 48 m in length and 2 m in height (Plate 6). It is deemed not structurally sound and has been supported externally to ensure its structural integrity remains until the work proposed under this project is undertaken.



Plate 6: WAM existing seawall

122. To the north of the project site is directly adjacent to the Waan Aelōñ building complex in Majel (WAM), which is located on a reclaimed coastal foreshore and intertidal reef flat within the lagoon. The existing seawall and associated revetment works are directly connected and accessible to the shoreline through past reclamation activities that have reclaimed approximately 50 m of the fringing reef within the Majuro Lagoon at this site.

123. Further east adjacent to the resort and further along the lagoon, significant past reclamation and dredging operations associated with foreshore and lagoon intertidal reef flat has occurred. To the west of the WAM seawall is directly connected to a concrete seawall of similar height associated with the adjoining public-school property, which extends along the peripheral of the intertidal reef flat boundary and reclaimed land. The seawall at this site includes the placement of boulder size reef rocks along the seawall and intertidal reef interface and has been backfilled with dredged material and rubbish on the foreshore side.

124. The natural vegetation within the WAM site and neighboring shorelines to the east and west is limited due to foreshore and terrestrial reclamation and significant infrastructure development. Several large *Calophyllum inophyllum* (Lukwej – Jijo) and pandanus (*Pandanus amaryllifolius*) trees were located in front of the Marshall Island Resort (MIR) adjacent to (east) the WAM site, several she oaks (*Casuarina equisetifolia*), small scrubs and perennial grasses were located to the west of the WAM site, whilst the only vegetation located within the WAM site included several small banana trees (*Musa sp.*) and sparse perennial grass.

125. Past foreshore and intertidal reef reclamation activities associated with the existing WAM seawall, adjacent ramp to the south and seawall to the west have significantly altered the coastal foreshore and intertidal ecosystems resulting in significantly changing the abiotic and biotic resources within the area and localized marine water dynamics and circulation patterns.

a. Direct Area of Influence (FD1)

126. FD1 assessment site is located on the intertidal reef flat directly adjacent (east) to and extends along the entire existing WAM site seawall (Figure 12). The survey covered an approximate length of 54 m, a width of 10 m, and water depth between 0.25 m and 0.75 m throughout the site. The survey site is exposed and in close proximity to the seawall during the periods of low water. The assessment was undertaken during high tide (free dive).

127. The northwestern boundary of FD1 was located 5 m past the existing seawall (7° 05' 12.03" N 171° 22' 18.2" E) and extends southeast along seawall and terminates past the seawall 5 m adjacent to the concrete ramp (7° 05' 11.35" N 171° 22' 19.74" E). FD1 site was entirely within the shallow intertidal reef flat with a total assessed area of 54 m².

128. The key findings of the shallow water marine benthic assessment associated with FD1 site (direct area of influence) of the WAM seawall is as follows:

- The intertidal seabed substrate profile associated with the FD1 site is relatively homogenous and similar throughout the area. The substrate is characterized by hard reef bed rock substrate covered with a bottom layer of coarse sand, gravel, rocks and boulders derived from coral reef origins.
- The entire foreshore and intertidal reef flat areas directly and adjacent to the seawall have been significantly altered with significant reclamation activities undertaken in the past.
- FD1 includes the intertidal reef flat that is significantly exposed during low tide that extends the full length of the existing seawall.



Figure 12: FD1 assessment site showing key abiotic and biotic resources recorded during the marine benthic assessment

- No hard or soft coral individuals or colonies observed nor was there any remnant evidence of hard corals living within FD1 site. No hard coral or recruitment coral was recorded.

- No seagrass and mangroves were observed within the assessed site.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage and species diversity was low recording a range benthic coverage of between <5–20%. Dominant species include the brown algae *Sargassum mangarevense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda sp.*, and *Caulerpa sertularioides* with isolated small patches of blue green algae (*Schizothrix calcicola*).
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. Two species of the shoreline crab (*Grapsus sp.*), several gastropod snails (Neritidae) and two specimens of the polychaete feather duster worm (*Sabellastarte sp.*) were recorded.
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and included reef dwelling herbivores (e.g. Acanthuridae).
- The marine benthic environment associated with the FD1 assessment site contains small amounts anthropogenic derived garbage, a physical clean-up of the site is recommended.
- There were no threatened, endangered, or endemic hard coral species, other invertebrate – vertebrate species located during the assessment within FD 1 site assessment.
- No marine mammals and/or marine reptiles (turtles) were recorded within the FD1 site.
- The benthic substrate and benthic habitat observed within FD1 can be considered to have a very low ecological habitat and value, which may be attributed to its environmental characteristics and past significant coastal foreshore and intertidal reclamation activities.

b. Indirect Area of Influence (FD2)

129. FD2 assessment site includes the intertidal and subtidal (including the start of the lagoon) reef systems directly adjacent to and surrounding FD1 survey site, which is located on the intertidal reef flat directly adjacent (east) to and extends along the entire existing seawall (Figure 13). The survey covered an approximately length of 115 m, width of 104 m, and a water depth between 0.75 m (intertidal) and 3.5 m (lagoon) throughout the site. FD2 site remains underwater during periods of low water. The assessment was undertaken during high tide (free dive).

130. The northwestern boundary (7° 05' 13.05" N and 171° 22' 17.13" E) extends approximately 60 m directly north of the concrete seawall opposite the school, west of the WAM seawall and extends east (7° 05' 10.63" N and 171° 22' 20.87" E), approximately 110 m due north of the foreshore associated with the MIR. FD2 sites total assessed area is 438 m².



Figure 13: FD2 assessment site showing key abiotic and biotic resources recorded during the marine benthic assessment

131. The key findings of the shallow water marine benthic assessment associated with FD2 site (indirect area of influence) of the WAM seawall is presented below:

- The intertidal, subtidal and lagoon seabed substrate profile associated with the FD2 site is relatively homogenous and similar throughout the area. The substrate is characterized by a bottom layer of calcium carbonate coarse sand, gravel, rocks, and boulders derived from coral reef origins that rest on a hard subsurface coralline platform that supports an elevated hard substrate (old reef) throughout the subtidal reef areas assessed.
- The entire FD2 assessment site has been significantly altered with significant reclamation activities undertaken in the past throughout the intertidal reef areas. Physical impacts resulting from past reclamation activities directly impact the shallow intertidal regions of the FD2 site, whilst subtidal and lagoon benthic substrate show clear evidence of impacts from increased turbidity (sedimentation).
- Hard coral percent coverage was variable, ranging between <5 and 40% with higher percent live coverage recorded within deeper subtidal areas of the site including the reef edge and lagoon interface.
- Hard coral and morphological forms included small to large, massive boulder corals (*Porities sp.*, *Leptoria sp.* and *Favia sp.*), digitate (*Porities sp.* and *Pocillopora sp.*), and branching (*Acropora sp.* and *Pocillopora sp.*, *Monitipora sp.*)
- Hard corals showed significant signs of environmental stress (sedimentation and possible temperature) and evidence of hard coral recruitment was recorded, albeit in

low levels.

- All hard corals recorded are common species within Majuro lagoon, Marshall Islands and regionally, and are adaptive to marine conditions located within this site. Their presence is a direct relationship to availability of a hard surface to colonize with suitable marine water conditions.
- No soft corals were recorded; however, one specimen of the upside-down jelly fish (*Cassiopea sp.*) was recorded.
- No Crown of Thorns (COTS), coral eating gastropod snails (e.g. *Drupella sp.*) or coral disease were recorded during the assessment.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage was significant ranging between 5 and 90% benthic coverage and moderately high level of species diversity was recorded. Dominant species include the brown algae *Sargassum mangarevense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda sp.*, and *Caulerpa sertularioides* with isolated small patch of blue green algae (*Schizothrix calcicola*).
- One small, isolated patch of sea grass (*Cymodocea rotunda*) was recorded approximately 25 m east of the southeastern end of the WAM sea wall (well outside the direct area of impact of the project) covering an area of 20 m². The seagrass showed signs of stress due to high sedimentation and possibly elevated water temperatures.
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. A healthy albeit small number of pistol shrimp (*Alpheus sp.*) and goby (*Amblyeleotris sp.*) burrows were located, several specimens of sea cucumber (*Bohadschia vitiensis*) and polychaete feather duster worm (*Sabellastarte sp.*).
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and include reef dwelling herbivores (e.g. Acanthuridae, Scaridae) and reef dwelling planktivores (e.g. Pomocanthidae).
- A small marine mussel was located in high population densities (up to 50%) attached to the concrete substrate of the WAM ramp. It was located nowhere else within the site assessed nor neighboring shallow water environments. This mussel species is unknown and possibly is an introduced species.
- The marine benthic environment associated with the FD2 assessment site contains small amounts anthropogenic derived garbage, a physical cleanup is recommended.
- There were no threatened, endangered, or endemic hard coral species, other invertebrate – vertebrate species recorded within FD2 site.
- There were no marine mammals and/or marine reptiles (turtles) recorded within the FD2 site.
- The benthic substrate and benthic habitat associated with FD2 site can be considered to have a low ecological habitat and value, which is attributed to its environmental characteristics and past impacts (sedimentation) from significant coastal foreshore and intertidal reclamation activities. The species recorded are found throughout the Majuro atoll and RMI.

C. Socio-economic Environment

1. Population

132. The RMI 2021 census recorded a total population of 42,594 persons (21,728 males and 20,690 females) of whom the majority are ethnic Marshallese. This was a 20% decrease in population since the previous census (2011).²⁹ The rate of population growth has slowed largely as a result of significant out-migration from the RMI. The nation is also becoming increasingly urbanized, with over 78 percent living in urban centers, primarily Majuro and Ebeye. Majuro, with a population of 23,156, makes up 54% of the population and is the most populated atoll/island in the RMI.³⁰ Majuro was one of only six atolls/islands to record population growth which reflects a movement of people from the outer islands to Majuro (and to a lesser extent Kwajalein), or abroad, to seek better employment, social and health opportunities. Majuro has a relatively high population density with 6,175 people per square mile.

2. Education

133. Education is compulsory from ages 6 to 14 (or completion of the eighth grade), with instruction in both Marshallese and English.³¹ There are 80 public and 15 private elementary schools, six public and 11 private high schools, and two college-level institutions. The 2021 Census shows that 93% enrollment rate for children 6-14 years of age. About 61% of the population to have completed high school but only 5% are completing a tertiary level education. Majuro is home to the College of the Marshall Islands (CMI) which provides tertiary and vocational education. The University of the South Pacific (USP) also has a campus on Majuro.

3. Health Services

134. In the RMI, the health care system is comprised of two hospitals, one in Majuro and one in Ebeye, and 58 health care centers in the outer atolls and islands. Both hospitals provide primary and secondary care but limited tertiary care. Patients who need tertiary care are referred to Honolulu or the Philippines (off- island referrals consume much of the health resources). Over the last decade, the people of the Marshall Islands have seen improvements in health indicators with decreases in maternal and child mortality.³²

135. Non-Communicable Diseases (NCDs) in RMI are primarily associated with lifestyle and behavioral factors which include:³³

- (i) Unhealthy Diet: High consumption of imported canned and instant food contributes to the prevalence of NCDs.
- (ii) Lack of Physical Exercise: Sedentary lifestyle and lack of physical activity are significant contributors.
- (iii) Tobacco Use: High rates of tobacco use are associated with various NCDs.

²⁹ Economic Policy, Planning and Statistics Office. (2023). Republic of the Marshall Islands 2021 Census Report Volume 1: Basic Tables and Administrative Report. Majuro, Marshall Islands.

³⁰ World Bank. (2021). Project Information Document. [Republic of the Marshall Islands Urban Resilience Project \(P177124\)](#).

³¹ Education in the Marshall Islands. (2023.). Retrieved from <https://www.globalpartnership.org/content/education-sector-plan-2020-2023-republic-marshall-islands>

³² Ministry of Health and Human Services. (n.d.). Your Health, Our Priority: Excellence at Majuro Hospital. Retrieved from <https://rmihealth.org/about-mohhs/contact-us/majuro-hospital>

³³ WHO. [Addressing noncommunicable diseases in the Pacific islands](#).

(iv) Alcohol Consumption: High alcohol consumption is another risk factor.³⁴

136. Majuro has a range of other social infrastructure and facilities typical of a developed urban center including churches, banks, telecom center and retail shops.

4. Economy

137. Public sector spending and contributions from the United States, via the Compact of Free Association (the Compact), largely drives the RMI's relatively small national economy. The Compact is an agreement between RMI and the United States, which provides for US economic assistance (including eligibility for certain US federal programs), defense of RMI, and other benefits in exchange for US defense and certain other operating rights in the RMI. The initial agreement was renegotiated for a further 20-year period, 2024 to 2043. Under the amended Compact, the Marshall Islands receives USD 2.3 billion in direct US assistance and trust fund contributions. After the Compact grant period, the RMI is expected to complement domestic revenues with returns from the Compact Trust Fund.

138. RMI has a small economy with an annual GDP of around USD 259 million, per capita GDP of USD 6,172 and a 1.1 percent real growth rate. Employment is dominated by the public sector, which accounts for 63% of the salaried workforce.³⁵ The subsistence sector is made up of fish, coconuts, breadfruit, bananas, taro, and pandanus cultivation. The land in RMI is not very fertile, so the agricultural potential is restricted. RMI has a small export range and low production ability and is therefore prone to external disturbances. Major export products are frozen fish (tuna), tropical fish for aquariums, decorative clams and corals, coconut oil and copra cake, and handicrafts.

139. The remoteness of RMI and its narrow domestic manufacturing base and relatively limited natural resources makes inhabitants heavily reliant on international trade and shipping operations. Most foodstuffs (excluding local foods such as fish, coconuts and some fruits), building materials, clothing, manufactured products and petroleum products, are imported, while exports are limited to fish and copra products.

140. Natural disasters (floods, droughts, cyclones, and storms) can also have a significant impact on RMI's economy due to economic losses (e.g., foregone tax revenue, unemployment) and the cost of recovery. Analysis under the Pacific Catastrophe Risk Assessment and Financing Initiative indicates that RMI faces an average annual loss of more than 2% of GDP from typhoons, earthquakes, inundations, and tsunamis.³⁶

141. As noted above, economic vulnerabilities are linked to both physical and social characteristics of RMI's islands and people, in addition to ongoing unsustainable development practices. Key drivers of the RMI's economic vulnerability include³⁷:

³⁴ Government of Marshall Islands. [RMI NCD Crisis Response Plan: NCD Emergency Response towards a Healthy RMI Action Plan 2013–2018](#)

³⁵ U.S. Department of State. 2023. 2023 Investment Climate Statements: Marshall Islands. Retrieved from <https://www.state.gov/reports/2023-investment-climate-statements/marshall-islands/>

³⁶ United Nations Development Programme. (n.d.). Enhancing Disaster and Climate Resilience in the Republic of Marshall Islands through Improved Disaster Governance and Climate Risk Management. UNDP. Retrieved April 24, 2024, from <https://www.undp.org/sites/g/files/zskgke326/files/migration/pacific/Project-Brief-EDCR-RMI.pdf>

³⁷ UNDP Pacific Office in Fiji. (n.d.). Enhancing Disaster and Climate Resilience (EDCR) in the Republic of the Marshall Islands. Retrieved from www.pacific.undp.org.

- (i) Natural Hazards: RMI frequently faces tropical storms, typhoons, storm surges, and droughts, leading to human casualties, economic disruptions, and loss of livelihoods.
- (ii) Climate Change Impact: As a small island nation, RMI's remote location makes it particularly vulnerable to climate change, which exacerbates disaster risks due to an expected increase in extreme weather events.
- (iii) Economic Loss: The Pacific Catastrophe Risk Assessment and Financing Initiative analysis shows that RMI faces an average annual loss of more than 2% of GDP from natural disasters like typhoons, earthquakes, and tsunamis.
- (iv) Sea Level Rise: The most significant threat to RMI is rising sea levels, as most atolls have an average highest elevation of only 2 meters, posing risks to ecosystems, coastal areas, and food and water security.
- (v) Energy Supply: The Marshall Energy Company relies on engines that are antiquated and prone mechanical failure. Examples include the frequent power outages in Majuro that can extend for several hours.
- (vi) Water Supply: the Marshall Islands, similar to other pacific island countries, faces fresh water supply scarcity. The current water supply reservoir capacity is insufficient and will need to double to meet the current population and needs. Output 1 of the project will continue to seek opportunities to harvest water by ensuring the relocation of current water tanks at project sites and/or installing new tanks to new infrastructure built under the project.

5. Employment and Income

142. The 2021 RMI census recorded an unemployment rate of 6% of the economically active population. Government sector employment (63%) is the largest provider of paid employment followed by private sector (27%). More men were recorded working for pay than women whilst more women were recorded 'producing goods mainly for sale' than men. The average annual household income on Majuro is USD 28,000 per year, which is USD 20,730 higher than the average annual household income for RMI as a whole, which is USD 7,270.

6. Land Tenure, Ownership and Use

143. About 97% of land in the RMI is privately owned and customarily controlled. Land rights are a highly complex and sometimes contentious issue in the RMI. Land ownership is through family lineage and according to social class. Paramount Chiefs (Iroij) have title to entire islands or portions of islands within an Atoll, clan elders (alaps) have title to several parcels of land under their Paramount Chiefs, and workers (dri-jerbal) have title to the parcel of land associated with their Paramount Chief on which they live. Each parcel of land is thus owned by at least three separate individual landowners, one each from the classes described.

144. In 2003, the RMI Government established a Land Registration Authority (LRA) to create a voluntary register of customary land and establish a legal framework for recording documents related to ownership rights. On Majuro, the majority of the population living resides on or otherwise uses land without either a claim of traditional rights in that land, a formal lease or other legal conveyance over that land. Thus, they occupy land at the discretion of the traditional landowners.

145. The RMI Government has current lease agreements for the following sub-project locations (refer to Social Due Diligence Report, SDDR):

- WAM Lease: For a period of 25 years from the date of January 2007 to the end of December 2031

- Women Centre Lease (existing 'pink' building): For a period of 25 years from the date of October 2007 to the end of September 2031
- CMI Lease: For a period of 30 years from the date of March 2014 to the end of March 2044

7. Transport

146. The Majuro International Airport and Port of Majuro provide air and sea connections to surrounding countries. Transport on Majuro is predominately by motorbike and car, with taxis making up a significant proportion of vehicles. A sealed road connects Djarrit to Laura (approximately 50km) with numerous short, unsealed roads providing access to and from the main road.

8. Utilities (water, sewerage, energy and waste)

147. The Majuro Water and Sewer Company obtains water from a catchment basin on the International Airport runway for supply to residents of Majuro and also provides sewerage collection and disposal. According to the 2021 RMI census, 88% of households Majuro have sanitary type toilet systems (either a toilet connected to a central sewerage system or a flush toilet to their own septic tank). The MOCIA supplies electricity to the residents of Majuro. The 2021 census data records 75% of households on Majuro using electricity for lighting.

148. The Majuro Atoll Waste Company (MAWC) is responsible for solid waste collection, landfill management, and recycling. It provides collection services to approximately 2,500 households and 82 commercial customers between the airport and Rita. The MAWC averages around 38.5 tons of waste collected per day. The visible waste mountain in Majuro has not only become an eyesore, but a major hazard. The Government of Japan in coordination with the RMI Government has developed a plan to manage the waste and use new technologies to address critical issues. This Plan will assist the MAWC in establishing a technically sound and financially sustainable solid waste management system.

9. Cultural and Heritage

149. There are 118 prehistoric/traditional sites and 212 historic sites recorded in the RMI. Management of heritage values at a national level is the responsibility of the RMI Heritage Protection Office (HPO). Most recorded sites have general management plans, but few have site specific plans. Majuro has several historic sites all associated with World War II wrecks. There are no prehistoric sites recorded on Majuro. There are no historic values associated with the sub-project sites.

150. Initial response from HPO indicated that the presence of cultural or traditional features of significance were highly unlikely in the project sites, especially as the project works will lie wholly within the footprint of the existing infrastructure. HPO will issue a letter of guidance to the project advising that if any features are encountered during project implementation, works will stop immediately and the HPO be notified as soon as possible.

10. Poverty

151. As in most Pacific countries, cash or material poverty is a sensitive and often controversial topic. This stems from strong cultural beliefs and practices of 'caring and sharing' for those

vulnerable and where no one gets hungry. Acknowledging the presence of poverty challenges the traditional foundation of society and the strength of its culture.

152. Poverty in RMI is a pressing issue. As of 2019, 7.2% of the population lived below the national poverty line. The unemployment rate was 6.3% in the same year. Tragically, for every 1,000 babies born in the Marshall Islands in 2021, 30 died before their 5th birthday.³⁸

153. The urgency of the poverty situation in the Marshall Islands is exacerbated by a scarcity of natural resources, high unemployment rates, and wealth inequality. Only 39.3% of the population aged 15 years and above are employed. In the island's two cities, about 30% of the population lives below the basic-needs poverty line.

154. The challenges faced by Marshallese are further complicated by the threat of rising sea levels and the lack of quality health care, education, and jobs. As a result, a third of the nation has migrated to various locations such as Hawaii, Washington, and Arkansas seeking better opportunities for their families.

V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A. Overview

155. This section provides an assessment of the likely impacts of the proposed infrastructure works on the physical, biological, socioeconomic, and physical cultural resources, and identifies mitigation measures to ensure all potential environmental impacts will be avoided or managed/reduced to acceptable levels. The IEE provides an analysis of the anticipated direct, indirect, and cumulative impacts associated with the project; and mitigation measures are proposed. The impact assessment process follows a methodology whereby sensitive receptors are identified, magnitude of impacts is established, mitigation measures are presented, and eventual residual impacts are managed. The safeguard measures will be incorporated into the project phase as follows:

- Pre-construction phase – the period from the preparation of this IEE to the time that the ‘notice to proceed’ is issued. This IEE and the two EMPs will be included in technical specifications and bidding documents. The successful contractor shall prepare a construction EMP (CEMP) that will be reviewed and approved by MOCIA’s PIMS consultant. Where required, the PIMS consultant will update the IEE based on the detailed design prepared by the contractor. The contractor will incorporate environmental mitigation measures identified in the IEE and the two EMPs into detailed design.
- Construction phase – the period from the time that the ‘notice to proceed’ is issued to the contractor to when the ‘certificate of completion’ is issued. The contractor will complete the project as per the design and technical specifications and implement the measures included in the approved IEE, CEMP and any conditions issued by RMI EPA. This process will be monitored and documented by MOCIA with the assistance of the PIMS consultant.

³⁸ Asian Development Bank. 2024. [Strengthening energy security and infrastructure in the Marshall Islands](#). Asian Development Bank.

- Operation and maintenance phase – the period starting when the ‘certificate of completion’ has been issued until the end of the agreed lifetime of the project. MOCIA, with support from the members of the Project Steering Committee, will be responsible for implementing the measures identified in the operation phase of the EMP.

156. The level of significance of potential impacts is based on impact screening which rates (i) no or negligible impact; ii) low or minor impact; iii) moderate impact; iv) major impact; and v) unknown impact. The duration of impacts is assessed based on the current concept design of the scope of works and the conditions in the subproject influence area. The criteria for assessment are in line with the ADB SPS and national CSS. Where RMI has no set standard or guideline, the standards given in World Bank’s EHSR are used. The EMPs then provides a matrix of mitigation and monitoring measures to prevent or minimize the impacts during pre-construction, construction, and operational stages.

157. The key environmental issues identified that needs to be mitigated to acceptable levels are as follows:

- (i) Disposal of concrete, boulders and rock materials related to the demolition of the existing dilapidated seawall at the WAM site;
- (ii) Disposal of materials related to the demolition and renovation of the existing buildings to construct a women’s center as well as childcare and family-friendly facilities; and
- (iii) Occupational and community health and safety risks associated with the demolition and construction activities, including the implementation of traffic management plan and noise controls at the MOCIA, CMI and MOEST/PSS sites.

B. Design and Pre-construction Phase Impacts

158. Design and pre-construction considerations include the need for environmentally responsible procurement; climate change resilience and adaptation; grievance management; disruption of utilities and services; disposal of spoils and building materials; potential damage to archaeological and cultural assets; potential of asbestos containing materials; health and safety; and biosecurity.

159. **Environmental management system.** To ensure effectiveness of environmental safeguards throughout project implementation, an environmental management and monitoring system will be established. The PIMS consultant will ensure that the EMP is updated after detailed design, as required, and incorporated into the bid documents. The bid documents will also specify other environmental management requirements such as: (i) requirements to comply with applicable standards; (ii) the contractor will designate an environmental, health and safety officer (EHSO) and describe the reporting/communication lines and channels; (iii) the monitoring and reporting requirements; and (iv) delivery of induction, training and awareness sessions for workers and the community.

160. **CEMP.** Prior to work commencing at the project site, the contractors will prepare and submit site-specific construction EMPs (CEMPs) to the PIMS. The CEMPs will be based on the project EMP and detail the construction methodology and program to be undertaken at each site, identify the risks associated with that construction methodology and detail mitigation measures to avoid or reduce the risks. The PIMS consultant will review and approve the CEMPs. A no objection is required from the PIMS consultant before the Contractor can start work. Once works commence, the EHSO will conduct monitoring of compliance of activities with the approved CEMPs and the PIMS will undertake inspections and audits of the effectiveness of the

contractor's implementation of the approved CEMPs. The PIMS will devise the checklist to be used for the inspections and audits and will consolidate the inspection/audit findings along with summaries of the contractor's monthly reporting. ADB will undertake review missions which will report on, inter alia, the overall implementation of social and environmental safeguard requirements.

161. Grievance redress mechanism (GRM). A framework grievance redress mechanism (GRM) is provided in Section VIII of this report. The project will also establish a site-specific GRM to address concerns and resolve complaints and issues raised on any aspect of project implementation. Safeguards concerns will be addressed through the GRM. The CEMP will outline how the contractor will implement the relevant elements of the GRM and how and when they will provide information about construction activities and timing to the community. The contractor will provide information about the works, impacts and mitigation/control measures to the community in a timely and effective manner. The contractor's liaison and communication with the community will be guided by the project's communication strategy and consultation plan.

162. Climate change considerations. Climate change affects various aspects of life, including infrastructure development. The location and design of the new and upgraded facilities on Majuro is vulnerable to the effects of droughts, flooding, and coastal inundation. Measures including the rehabilitation of the WAM seawall will be implemented to minimize any adverse effects on marine and coastal habitats and resources. Measures will be considered for the rehabilitation of the seawall as reflected in the RMI National Adaptation Plan. Climate adaptation measures considered in the two proposed building projects include provision of natural ventilation and air conditioning, rainfall runoff management, connecting the power and water supplies to the main grid, and elevation of key infrastructure such as the generator to ensure power is supplied during extreme inundation events. Minor impacts may occur during the demolition and construction phase, but mitigation measures will be implemented as outlined in the EMP.

163. Sources of construction material. The project will prioritize sustainability by utilizing locally sourced materials such as low-VOC paints, recycled steel, and sustainable timber to minimize environmental impacts. Should any materials be sourced locally (i.e., sand, or aggregate), the contractor must seek approval (including obtaining the requisite earth moving permits from EPA) and/or agreement from, including payment of royalties to, the land/resource owner. Any sand or aggregate extraction required for the project will only be undertaken in accordance with the permit conditions and an extraction plan reviewed and cleared by the PIMS consultant. Vehicles transporting loose materials, from an extraction area to the project sites, will be covered and secured with tarpaulin to prevent dust or spillage.

164. Equipment procurement and biosecurity. All construction equipment, i.e., bulldozers, excavators, backhoes will be sourced locally first (i.e., from RMI or nearby areas and as such will limit any bio-security concerns focusing on plant invasive species/disease control). For equipment and materials that are not sourced locally, bio-security controls for shipping are required to meet the acceptable cleanliness standards of RMI's biosecurity protocols or be refused entry into that country. It is the importer's responsibility to ensure all machinery that arrives in the RMI to be free from biosecurity risk material, such as soil, seeds, plant, and animal material. Any materials or equipment imported will be screened and cleaned to comply with biosecurity and quarantine requirements and to avoid introduction of invasive or alien species. Further, all equipment and building materials will require certificate of clearance from the quarantine division of the Marshall Island government.

165. **Land access and use.** A social due diligence report (DDR) has been prepared confirming that there will be no land acquisition nor physical or economic displacement under the project. The project team has confirmed that the land leases for the MOCIA Women's Center, the seawall near the WAM NGO, and the CMI Family and Daycare Center are valid and up to date. Project activities will be implemented on existing footprints and along right of way alignments.

166. **Disruption to utilities and services.** Prior to construction activities, MOCIA, the PIMS consultant, and the contractors will: (i) coordinate with utility providers to obtain information about locations of services and utilities during detailed design; (ii) coordinate with the other utility companies regarding potential disruptions; (iii) make provisions to preserve the operation of current facilities, and (iv) notify affected households and establishments well in advance of disruptions.

167. **Induction of contractors to site.** Once the construction contractor has been selected and the Construction Environmental Management Plan (CEMP) has been approved, the contractor, along with their assigned EHSO, will meet with the onsite Safeguards Specialist of the PIMS consultant. During this meeting, the CEMP requirements will be reviewed and confirmed with the contractor. Once the Safeguards Specialist is satisfied with the fact that the contractor comprehends and can adhere to the CEMP, they will inform the Project Civil Engineer that the contractor is ready to commence work.

168. **Site clearance and chance finds.** Project activities will be implemented on existing footprints with existing buildings and facilities; therefore, physical resources of cultural significance are not anticipated. Whilst discovery of physical cultural sites or resources is unlikely, any site clearance and excavation activities undertaken during the pre-construction phase of the subproject can unearth archaeological sites or resources. In the event this occurs, work shall cease immediately, and the appropriate authorities shall be informed of the findings. Activities shall not re-commence until the authorities have signed off that the site/resources have been dealt with appropriately and that work may continue.

169. **Residual impacts.** Provided all the above measures are implemented and monitored for effectiveness, it is acknowledged that residual impact is limited or not anticipated.

170. **Prohibited activities.** The contractor should be fully aware of the activities listed in Appendix 5 of the SPS, which contains the Prohibited Investment Activities List implemented in January 2010. It is crucial to note that any activity listed in Appendix 5 is strictly prohibited, and no ADB funds can be utilized to finance such activities. The contractor will be informed of these requirements through explicit inclusion in the contract, emphasizing that none of the prohibited activities will be authorized or permitted during the construction phase.

C. Demolition and Construction Phase Impacts

171. The demolition of existing buildings and the construction of new facilities as well as the reconstruction of the existing seawall will be undertaken in a modified peri-urban environment, and it is acknowledged that the environmental impacts assessed are confined to specific locations, relatively small in scale, and temporary in nature. These activities should align with Best Construction Practices typical of environmental disturbances associated with demolition and construction works, such as dust, noise and waste management.

172. Impacts that are likely to occur during the demolition and construction works are listed below. Appropriate mitigations are to be implemented and managed by the contractor with oversight from the PIMS consultant.

- (i) Demolition of existing facilities as well as operation of construction plant and vehicles generating dust, noise and vibration;
- (ii) Site/location clearing, earth movements, excavations, and stockpiling of materials;
- (iii) Sourcing of construction materials and extraction of aggregates;
- (iv) Demolition and construction wastes disposal, pollution from hazardous materials, and wastewater management;
- (v) Stockpiling of construction materials such as sand, gravel and cement;
- (vi) Transportation of demolition and construction wastes as well as construction materials; and
- (vii) Occupational and community health and safety risks.

173. Additional activities anticipated during the rehabilitation of seawall include:

- (i) Demolition of the existing dilapidated seawall;
- (ii) Construction work impacts on land; and
- (iii) Construction work impacts on aquatic environment.

1. Impacts on Physical Environment

174. **Air quality.** The quality of air where the proposed project components are located is typical of a peri-urban setting in RMI and is of high quality due to the limited and relatively small vehicle fleet. On-site dust generation and use of vehicles and equipment can be expected during dry periods from activities associated with site clearing, ground leveling, and excavations for new construction and seawall. Wind blowing on stockpiles of demolition wastes and construction materials such as soil and aggregates is expected.

175. As with typical construction impacts, construction activities will have localized and intermittent impacts on air quality through emissions of dust and exhaust from machines and vehicles. Sulfur Dioxide (SO₂) and Nitrogen dioxides (NO₂) gases are expected from construction vehicles because of the petrochemical (diesel and petrol) fueled equipment including total suspended solids (TSS) from dust.

176. The contractor is required to maintain all construction equipment and avoid using machines emitting visible smoke. Dust generation will be minimized by regular water spraying of exposed sites to prevent reduced visibility and dust generation. Mitigation measures include:

- (i) Construction equipment and vehicles to be regularly maintained to a good standard and maintenance will be monitored and reported;
- (ii) Prohibition on the use of equipment and machinery that causes excessive pollution (i.e. visible smoke);
- (iii) Spraying and damping down of the road, works yard area and any haulage roads as required;
- (iv) Ensuring that all vehicles transporting potentially dust-producing material are not overloaded, are provided with tail and sideboards, and are adequately covered with a tarpaulin (covering the entire load and secured at the sides and tail of the vehicle) during transportation; and

- (v) Material stockpiles will be in designated areas that are sheltered and not located near the coast or and sediment traps are installed to prevent discharge into the neighboring environment.
- (vi) Periodic qualitative air quality monitoring (by observation rather than testing) as per the EMP will be undertaken.

177. **Noise and vibration.** This applies to all machinery, vehicles, and construction areas where noise and vibration could potentially disrupt students during class times and nearby communities to civil works. It is the contractor's responsibility to ensure that noise and vibration levels do not negatively impact the school and relevant communities. The contractor must be prepared to limit construction activities to daylight hours (from 7:00 a.m. to 7:00 p.m.), in consultation with the school administration, to determine appropriate times for demolition and construction works, such as long school holidays, etc. to ensure that classes are not disturbed. Nighttime operations may not be feasible due to the potential disturbances and lighting concerns. The contractor must take measures to control noise emissions and ensure that noise levels do not exceed 45 dBA in the school and 55 dBA for residential areas. Workers will be provided with personal protective equipment to reduce the effects of high noise levels.

178. The contractors for all subprojects will minimize the potential impact of construction noise on the surrounding environment and communities by implementing measures such as (i) moving generators away from classrooms and settlements; (ii) using pneumatic tools with effective air exhaust ports when operating near settlements; (iii) maintaining noise suppression devices on construction vehicles and equipment; (iv) notifying the school administration, landowners, and nearby settlements about intended work and its duration, especially if noise from construction activities may impact them; (v) considering construction work schedules to mitigate noise emissions during both day and night, although night works will not be necessary.

179. **Preparation of site and establishment of contractor's facilities.** The mobilization of the contractor and initial establishment of work sites will require the presence of construction workers and subsequent interactions with the local residential (urban and rural) and business communities. Prior to contractor mobilization to the site, the PIMS consultant and the contractor will establish a communications protocol for the project with relevant elements of the GRM to be reflected in the contractor's CEMP. The contractor will also establish a code of conduct or protocols to govern the behavior of workers and will be agreed with community leaders. Measures to minimize disturbance by construction workers and presence of the works site/area include:

- (i) Code of conduct/protocols agreed with community leaders/schools and disseminated to workers as part of awareness and mobilization training. The code is to ensure that workers' actions at the work site, in the community, and schools are controlled and observed;
- (ii) The contractor will identify a member of their staff to be the liaison between the communities, schools and contractor, as well as between the contractor and the PIMS consultant.
- (iii) Adequate signage and security provided at the work sites and prevention of unauthorized people (including children) entering the work sites;
- (iv) Provision of adequate protection to the public close to the work site, including notice of commencement of works, installing safety barriers if required by communities, and signage or marking of the work areas; and
- (v) Provision of safe access across the works site to students, community and businesses whose access is temporarily affected during road rehabilitation activities.

180. The scale of the project is small with a local contractor(s) to be utilized; hence, the establishment of a construction site, storage/laydown areas and labor camp is not anticipated. However, where these temporary facilities are deemed needed, the following requirements will be followed: contractor's on-site facilities shall (i) be contained within an adequate security fence; (ii) not interfere with the welfare of the sensitive surrounding communities in terms of social proximity of labor camps or noise, dust and vibration from construction activities; (iii) be limited in size to reduce unnecessary clearing of vegetation; (iv) not release sanitary waste or grey water untreated into surface water systems; (v) be properly drained, including paved areas, vehicle parking areas, workshops and fuel storage areas draining to an oil and water separator; and (vi) have fuel storage areas not located within 20 m of a water course.

181. **Excavation and disposal of spoil at construction sites.** On all sites where excavation is required, the contractors will (i) limit excavation to the footprint of buildings, septic tanks and areas that can be effectively managed and protected; (ii) remove, stockpile and cover topsoil in separate heaps located in stable areas for later reuse and site rehabilitation; and (iii) sort and store excavated material as either competent (able to be reused) or incompetent (to be disposed of) materials. For the demolition and construction of the seawall, the contractors will submit a plan for the disposal of excess excavation spoils, and to obtain approval of the contractors' suggested disposal sites prior to actual construction.

182. **Soil erosion and sedimentation.** Potential sources of sediment runoff include site clearing, ground leveling and excavations for the foundation of structures. These activities can release soil materials to the surrounding areas during rainy periods if not provided with sediment control measures. During these activities, the contractor will be required to prepare a sedimentation and erosion control plan (SECP) as part of the CEMP. Potential soil impacts and erosion will be mitigated by implementing the following management measures:

- (i) Prepare SECP as part of the CEMP to include sediment control measures such as but not be limited to small interceptor dikes, pipe slope drains, grass bale barriers, silt fence, sediment traps, and temporary sediment basins to divert surface runoffs away from exposed areas;
- (ii) Confine all land disturbances to the minimum practicable working area to ensure that the minimum area of land is exposed to erosion for the shortest possible time;
- (iii) If the contractor causes damage to land, the contractor is responsible for repairing the damage and/or paying compensation;
- (iv) As per the health and safety management plan, all chemicals must be stored in an area or compound with a concrete floor and weatherproof roof;
- (v) Spill kits (oil/fuel remediation agents, oil pads, oil booms and geo-fabric cloths) will be available and workers will be trained in their use and deployment;
- (vi) Refueling of construction vehicles must be carried out only at a designated area (concrete platform). Refueling adjacent to the coast or stream/channel will not be permitted;
- (vii) Where silt control devices and sediment traps/fences are required, regular cleaning and dewatering should be implemented; and
- (viii) Random and uncontrolled dumping of construction spoils, or any material, will not be permitted.

183. **Storage, use and transport of hazardous materials.** Petrochemicals and other hazardous substances will be used and transported during the project. If not handled and stored properly, these can cause harm to people and the environment. The contractor will be responsible for ensuring hazardous waste is managed as per the project's hazardous waste management

plan (HWMP) and the Emergency Response Plan (ERP), which will be included in the CEMP. Mitigation measures include:

- (i) Contractor to prepare a HWMP and ERP as part of the CEMP;
- (ii) Locate storage areas for all petrochemical products including bitumen at least 500 m from coastline and 100 m from stream/rivers;
- (iii) Fuel and oil stored in secured (lockable), weather-proofed areas including an impervious flooring and bund/containment wall to contain spillage. The bund shall be 110% of largest volume stored;
- (iv) All other chemicals and hazardous substances will be stored in lockable and secure areas in clearly labeled containers;
- (v) Used oil, other toxic (e.g. bitumen) and hazardous materials shall be disposed of in an authorized facility off-site and any spill waste will be disposed at disposal sites approved by the RMI EPA;
- (vi) No smoking or fire of any kind permitted in the vicinity of bitumen and kerosene blending tanks. Provide a carbon dioxide (CO₂) fire extinguisher at bitumen tank site for firefighting; and
- (vii) Spill kits will be provided at work sites and works yards and staff will be trained in their use and deployment. All spills cleaned as per emergency response plan.

184. Where there is accidental spill or leak, the following measures for clean-up and handling of contaminated materials will be implemented:

- (i) report to the PIMS consultant and police within 24 hours;
- (ii) immediate clean-up of spills;
- (iii) oil-stained waste and used oil to be collected and disposed of through recyclers, authorized waste handlers and disposal in authorized waste facilities;
- (iv) ensure availability of spill cleanup materials such as absorbent pads;
- (v) restoration of temporary work sites will include removal, treatment, and proper disposal of oil contaminated soils;
- (vi) discharge of oil contaminated water into the environment to be prohibited; and
- (vii) construction personnel designated to handle fuels/hazardous substances to be trained particularly in spill control procedures.

185. **Waste management.** Demolition and construction activities are expected to generate solid waste including used wood materials, steel works cuttings, paint, and solvents containers, used packaging materials, on-site office solid wastes, used oil from equipment, unused aggregates, and surplus earth materials. These solid wastes may cause aesthetic problems and will be potential sources of contaminants for surface runoffs and pollution of nearby water bodies. Contractors will be required to:

- (i) prepare a waste management plan (WMP) as part of the CEMP;
- (ii) provide garbage bins and facilities within the project site for temporary storage of construction waste and domestic solid waste;
- (iii) separate solid waste into hazardous, non-hazardous, and reusable waste streams and store temporarily on-site in secure facilities with weatherproof flooring and roofing;
- (iv) ensure that waste is not haphazardly dumped within the subproject site and adjacent areas;
- (v) regularly dispose of waste to the local landfill; and prohibit burning of all types of waste; and

- (vi) after completion of work activities, contractors will be required to remove construction waste from sites and implement the required restoration of disturbed sites.

186. All these activities will be reflected in the CEMP which will contain a waste management plan describing all waste types, amounts, disposal method, transport documentation requirements, and details of licensed waste treatment/recycling facilities for each waste stream.

187. **Clearance and rehabilitation of construction sites and removal of contractor's facilities.** The contractor is responsible for site clean-up and restoration. This encompasses the proper removal of waste materials, machinery, and any soil that may be contaminated. Every construction site and work area must undergo rehabilitation to restore them as closely as possible to their previous state. This involves activities such as stabilization and landscaping. Any soil that has been contaminated in fuel and oil storage areas must be carefully removed. Following removal, the site should be revegetated to promote environmental recovery. It is essential that no waste is left behind once the work is completed unless it is naturally and safely biodegradable. The contractor must ensure that all waste materials are appropriately disposed of, and the site is restored to its designated condition. The PIMS consultant will also conduct inspections to verify the clean-up and restoration efforts, ultimately providing their approval for the site's completion. By adhering to these guidelines, the contractor ensures a thorough clean-up process and the preservation of environmental integrity.

188. **Water resources and quality.** Construction activities have the potential to interfere with local water resources through inappropriate abstraction for construction and pollution of water resources (oceans, stream and ground) through accidental spillage of hazardous materials (refer hazardous substances control) and through demolition of structures / dilapidated seawall in and above the watercourse. The risk for construction activities to cause water quality deterioration is considered minimal, provided that adequate waste management as well as soil and erosion control (as provided above) are adopted and consistently implemented on-site. In addition, the following measures will be implemented during the rehabilitation of the seawall:

- (i) Construction activities adjacent to or in waterways and drainage channels will be undertaken with extreme care;
- (ii) Stockpiles of materials will be in designated areas and will be located at least 50 m from the coast;
- (iii) Minimize interference with watercourses within or adjacent to the subprojects work sites; and
- (iv) Where required, use silt control devices and sediment traps/fences during all extraction and construction activities, which are to be cleaned and dewatered regularly.

189. **Residual impacts.** Provided the above measures are consistently implemented and monitored for effectiveness, the residual impacts on air quality and site clearance activities are considered low. The residual impacts of soil erosion, waste management and impacts on water quality are considered low to medium after implementing the management measures stated above. The use, storage and transportation of hazardous substances will have residual impacts considered to be medium.

2. Impacts on Biological Environment

190. Based on the baseline condition survey and assessment, it has been determined that the project area of influence for all subproject sites does not comprise any significant ecologically sensitive areas, due to having already undergone modifications. Consequently, it is anticipated that there will be no notable ecological impacts resulting from all construction activities. No clearing of vegetation is necessary to make way for the renovation and construction works at each of the subproject sites. No fruit trees will need to be cleared.

191. **Rare or endangered Species.** There are no Red Listed terrestrial or aquatic species in all areas of project influence.

192. **Terrestrial habitat alteration.** Construction and rehabilitation activities will not involve alteration of important terrestrial habitats since the sites are highly modified. A small area will be cleared during the construction. Any remaining land cleared, and not required for construction, may be seeded as part of the revegetation program.

193. **Aquatic ecological impacts.** The proposed scope of works to replace the existing seawall has minimal environmental footprint both above and below the water level. Impacts on the marine environment and coastal waters within and around the existing seawall are expected to be minor, localized to the immediate footprint of the works, and easily managed through standard engineering good practice mitigation measures.

194. There are no threats to the area's marine and coastal biodiversity associated with the project. It is expected that there will be no impacts to the areas hard coral and/or seagrass colonies as none are recorded within the direct area of impact. As such, the potential impacts of the works on the marine environment are considered minor, temporary, easily mitigated and overall insignificant.

195. The replacement of the WAM seawall does not impact any marine, coastal or terrestrial conservation and/or protected area, sites of cultural, customary or heritage significance nor any national or international marine, freshwater or terrestrial endangered or protected species. Thus, no impacts on critical habitats are associated with this project. Based on the project boundary and baseline survey, all hard coral colonies and patches of seagrass are located outside of the direct areas of physical impact and as such is not expected to be affected by the project activities.

196. There is potential for localized and temporary increased suspended sediment levels in the marine environment around the seawall as a result of the project activities. Such impacts are expected to be negligible due to the low habitat value of the benthic environment, especially within the direct area of impact. The benthic habitat and ecosystem associated within the project site is classified as an extensively modified and highly disturbed benthic foreshore and marine habitat of low ecological value. Further, the prevailing tidal current persisting at the site, the site existing sedimentation and siltation conditions, and the limited physical construction activities proposed will result in negligible impacts. The tidal current and waves associated with the site will aid in the redistribution of fine sediment quickly.

197. Spillage/leakage of oil and other pollutants into the marine environment from plants and equipment used during the construction phase of the project is not anticipated provided that the HWMP is consistently implemented.

198. The potential impact of increased suspended sediment levels from the works can be further minimized through implementation of the following mitigation measures during the construction phase of the project:

- (i) Ensure due diligence when operating machinery during all work activities to prevent and manage petrochemical spillage and contamination of the waters associated with all works undertaken to replace the sea wall.
- (ii) Consideration of the use of silt curtain/s adjacent and around the full extent of the sea wall position within the intertidal reef flat during all physical construction activities to directly manage and reduce the dispersion of benthic substrate (silt) disturbed during construction.

199. **Residual impacts.** Provided all the above measures are implemented and monitored for effectiveness, there should be little or no residual impact for all aspects considered under this section.

3. Impacts on Socio-economic Environment

200. **Construction noise and vibration.** There are no noise standards in RMI. Trucks and construction equipment, which can generate noise of 80 dB(A) from 30 meters are potential sources of noise during demolition and construction works. The issue is particularly important in the urban areas of Majuro. Construction noise will be intermittent, quickly attenuate with distance, and, depending on the type of operation, location, and function of equipment, is considered minimal and temporary. Significant vibration from construction activities is not expected.

201. Hence, construction activities should be restricted during the daytime. Noise permission from relevant government agencies will be required to operate outside of these hours, which may be required for certain activities. It is a requirement of the CEMP that construction machinery and equipment incorporate standard noise mitigation measures. These measures will safeguard project workers and nearby establishments against adverse noise impacts.

202. Co-operation between the contractor and the sensitive receptors is essential. It is the responsibility of the contractor to arrange meetings between these parties and coordinate work schedules (hours of equipment operation etc.) and location of noisy activities.

203. Noise incurred by construction workers from construction machinery is also a safety hazard. All construction workers are to be provided with noise abatement personal protective equipment (PPE), to be outlined in the contractor's health and safety management plan (HSMP). Measures to mitigate the effects of noise include:

204. Contractors will be required to:

- (i) provide prior notification to the community on schedule of construction activities;
- (ii) maintain vehicles and equipment in good working order and undertake regular equipment maintenance;
- (iii) whenever applicable, provide noisy equipment with noise reduction covers, mufflers or other noise abatement equipment;
- (iv) position stationary equipment that produces elevated noise levels, such as diesel generators and air compressors, as far as practicable from houses, schools, offices and other receptors;

- (v) as practicable, establish buffers between work areas and nearby sensitive receptors such as classrooms, offices, and houses;
- (vi) prohibit operation of noisy equipment and construction works in populated areas and where sensitive receptors are found during nighttime (19:00 – 06:00);
- (vii) in necessary nighttime operation, ensure prior notification and consultation will be made with affected people and local officials, and implement suitable noise reduction measures;
- (viii) where required, conduct regular noise level monitoring to determine compliance with WHO guidelines for noise which should not exceed 55 dB(A) near residential areas during daytime and 45 dB(A) for nighttime; and
- (ix) any complaints regarding noise will be dealt with by the contractor in the first instance through GRM.

205. Traffic congestion and hindrance to public access. Construction activities and any temporary or partial road closures may cause traffic congestion and hinder public access, particularly in the urban areas of Majuro. Contractors will be required to:

- (i) prepare a traffic management and control plan as part of the CEMP and provide traffic management personnel to direct the flow of traffic in the vicinity of the construction sites and construction-related facilities;
- (ii) Special consideration on traffic management plan to be given around CMI during school hours
- (iii) closely coordinate with local authorities for any closure of roads or rerouting of vehicular traffic;
- (iv) provide prior notification to the community on schedule of construction activities;
- (v) provide traffic signs in the vicinity of the construction sites to direct motorists and pedestrians; and
- (vi) schedule construction activities with consideration to periods of heavy presence of people such as festivities, processions, parades, etc. to minimize disruption to local activities.

206. Potential social issues due to the influx of workers. Considering the scale of the project components, local contractors are anticipated to be commissioned; however, where foreign workers are engaged, a plan will be required from the contractor to address amongst others:

- (i) measures to minimize contact with local residents to prevent the risk of spread of communicable diseases including STI's and HIV;
- (ii) induction of all workers on Project requirements regarding safeguards (including child protection), the GRM and CP requirements;
- (iii) conduct gender-based violence (GBV), sexually transmitted infection (STI), and human immunodeficiency virus (HIV) training;
- (iv) agreement to and implementation of protocols around sexual exploitation abuse and harassment (SEAH), including code of conduct, concerning the workers' contact with the local communities;
- (v) ensuring that sufficient water supply and temporary sanitation facilities are provided for workers at work sites in order that community infrastructure is not over- burdened; and
- (vi) security at contractor's yard to control unauthorized access and prevent entry of the public (especially children).

207. **Occupational health and safety.** Health and Safety will be managed in accordance with the USA - OSHA (Occupational Safety & Health Association) and where gaps exist best practice will be employed. The contractors will be required to have a full-time health and safety representative that will be responsible for ongoing compliance including regular auditing and updates with a health and safety management plan (HSMP) submitted by the contractor(s) as part of the CEMP to establish routine safety measures to cover the project areas and any other associated sites or construction yards. Mitigation measures to be implemented by contractors to ensure health and safety of workers will include:

- (i) Prior to commencing construction, the contractor will demonstrate to the PIMS consultant that the Health and Safety Management Plan (HSMP) will be adequately resourced. The HSMP will be approved by both the PIMS consultant and Design and Supervision Consultant (DSC) before construction commences.
- (ii) The contractor will appoint a full-time environment, health, and safety officer (EHSO) responsible for implementing and monitoring the CEMP and communicating with establishments in the area.
- (iii) Before construction commences, the contractor will conduct training sessions for all workers on GBV/STI/SEAH, environmental safety and hygiene. Workers will be instructed on health and safety matters in accordance with legal requirements and best engineering practices. The contractor will also provide appropriate first aid facilities.
- (iv) Prior to starting work, the contractor will provide comprehensive induction training to all workers regarding health and safety matters (induction course). Site agents and foremen will conduct regular toolbox talks on a weekly basis to reinforce the importance of health, safety, and hygiene. Training for new workers joining the site will cover environmental safety and hygiene.
- (v) Workers will be equipped, at no cost to themselves, with the necessary personal safety equipment suitable for electrical work, such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection. Site agents and foremen will monitor the proper usage of safety equipment and ensure that it is not sold or misused.
- (vi) Fencing will be installed around all excavation areas and temporary worksites to ensure proper safety and prevent unauthorized access.

208. Contractors will be required to:

- (i) ensure that a properly equipped and resourced first aid station is available at all times;
- (ii) provide potable water and adequate sanitation facilities;
- (iii) provide personal protective equipment (PPE) suitable for tasks and activities undertaken to minimize exposure to a variety of hazards;
- (iv) provide fire-fighting equipment and fire extinguishers in workshops, fuel storage facilities and any sites where fire hazards and risk are present;
- (v) ensure that all workers are aware of emergency response and medical evacuation procedures;
- (vi) ensure that only suitably qualified and experienced staff are utilized on the project works; and
- (vii) guarantee the work practices, skills, qualifications, and experience of all subcontractors engaged to work on the project works. This shall include off-site fabrication. To this end where the subcontractors' systems, rules and policies are of a lesser standard to that of the head contractor, the head contractor shall require their sub contractors to abide by their systems, rules, and policies.

209. The contractor's HSMP will provide guidance to its staff on how good work practices can be carried out on every activity at the construction site to prevent accidents to the workers and the public. This will include emergency procedures and the required resources, clear description of responsibilities and management, specific requirements of occupational health and safety policies and regulations, training requirements, and site safety rules.

210. **Community health and safety.** The contractor will provide warning signs at the periphery of work sites warning students and the public not to enter and define this in the CEMP. This applies to both the contractor's yard and work areas. Access will be controlled to the contractor's facilities and all visitors will be required to report to a checkpoint before being allowed to enter the site. Other work areas will be demarcated by barrier tape and signs erected as required to warn people that there is no right of entry to these areas. The contractor will also provide information boards near work sites to inform and instruct the public on how to conduct themselves and to be aware of their surroundings if they must approach the works. The noticeboard will provide contact numbers. The public safety section of the health and safety plan will include, but not be limited to, the following:

- (i) a clear statement of the contractor's safety policy for both workers and the public;
- (ii) compliance with relevant legal requirements;
- (iii) identification and consideration of work safety and public safety issues;
- (iv) workforce training programs to be implemented; (v) provision of information to students and the public regarding work safety issues;
- (v) establishment and monitoring of acceptable working practices to uphold safety standards;
- (vi) implementation of measures to ensure traffic and road safety, including traffic flow and pedestrian safety;
- (vii) discussion of the inspection and monitoring role of the PIMS consultant;
- (viii) implementation of a complaints management system throughout the duration of the works;
- (ix) fulfillment of public consultation requirements;
- (x) investigation and reporting of incidents and accidents; and
- (xi) integration of a complaints management system within the overall Grievance Redress Mechanism (GRM).

211. Directly affected persons such as those living in proximity will be consulted prior to the start of work on site through community consultation and awareness sessions as detailed in the consultation plan.

212. **Chance discovery of archaeological and cultural sites.** Whilst it is unlikely for there to be archaeological or cultural sites, there may be a possibility that 'chance discoveries' may be made through excavation works. The contractor will be responsible for these findings and is to immediately stop work where the discovery has been made and advise the project civil engineer and the PIMS consultant of the discovery. The safeguards specialist of the PIMS consultant will report the finding to have the site evaluated. Depending on the evaluation of the discovery the contractor will be advised whether it is possible to resume work on the site. The contractor can proceed to work at other sites until the site where the finding took place is cleared by relevant authorities. Likewise, in the event of a UXO find, all works must stop, and the site must be cordoned off. The site must be reported immediately by the contractor to the project engineer, the PIMS consultant, and the relevant authorities who will arrange to have an expert safely remove the ordnance from the construction site. After further assessment, the UXO expert will declare the site cleared before work can resume.

213. **Residual impacts.** Provided the above measures are implemented and monitored for effectiveness, the residual impacts for public access, noise, disruption to services and utilities and physical and cultural resource activities will be negligible, if any. For community and worker health and safety activities, the residual impacts will be low-medium.

D. Cleanup and Demobilization Phase Impacts

1. Impacts on the Physical Environment

214. **Solid waste.** Cleanup and demobilization often result in the generation of waste materials. Mitigation measures include proper waste segregation, recycling where possible, and disposal of waste at authorized waste management facility.

215. **Hazardous materials.** Hazardous materials are often left after the construction phase. Proper disposal of paints, thinners, and hazardous materials including ACMs are to be disposed properly at waste management facility or exported to an authorized waste management facility.

216. **Air and Noise Pollution:** The use of machinery during cleanup can result in air and noise pollution. Mitigation measures include using low-emission machinery, maintaining equipment to reduce noise, and restricting work hours to less sensitive times.

217. **Soil Erosion:** The removal of equipment and temporary structures can disturb the soil and lead to erosion. Mitigation measures include stabilizing disturbed areas as soon as possible and implementing erosion control measures.

2. Impacts on the Biological Environment

218. **Habitat Disruption:** Cleanup activities can disrupt local habitats. Mitigation measures include restoring habitats after project completion and avoiding unnecessary disturbance.

219. **Vegetation Damage:** Cleanup activities can damage local vegetation. Mitigation measures include replanting native species and protecting existing vegetation during cleanup.

3. Impacts on the Socioeconomic Environment

220. Cleanup and demobilization at the end of the construction phase, including demobilization can have several impacts on the socioeconomic environment.

221. **Employment Changes:** The end of a construction phase often results in employment. Mitigation measures can include job transition programs, retraining, or redeployment to other ADB construction projects.

222. **Economic Activity:** The end of a construction phase can lead to reduced economic activity in the local communities. Mitigation measures can include local investment programs or support for local businesses and women groups.

223. **Resource Allocation:** The end of a construction phase can impact on the allocation of resources in various sub-project locations. Mitigation measures can include effective resource management plans and coordination with local authorities.

VI. ANALYSIS OF ALTERNATIVES

224. This section discusses the alternatives considered in determining the preferred project concept defined in Section III (Description of the Project) of this IEE.

A. “No Project” Scenario

225. The National Strategic Plan 2020-2030 articulates the country’s long-term development goals and includes the objective to support inclusive and equitable lifelong learning opportunities for all.³⁹ The National Gender Mainstreaming Policy identifies priorities to progress towards achieving gender equality, and these include strengthened capacity to deliver gender-responsive programs and services, improved enabling environment for equitable participation in and benefit from economic development and decision-making, reduced gender-based violence, and improved protection and care of survivors.⁴⁰ Founded on a comprehensive consultative process, the National Youth Policy 2021–2025 recognizes the government’s commitment to the country’s youth and sets out priorities and guidelines for implementation.⁴¹ The National Adaptation Plan includes a short and long-term pathway for climate change mitigation and adaptation. It identifies the need to develop and implement services to support community members, improve mental health, increase knowledge and skills, strengthen coastal protection, and encourage resilient investments.

226. The goal of the project is to support the government of RMI to increase access of vulnerable women and at-risk youth to livelihood and skills trainings and support services. It aims to improve women and young people’s access to productive livelihoods and decent jobs. The rationale behind this project is to address the key issues faced by women and youth in RMI, including (i) low labor force participation of women and youth; (ii) lack of access to childcare that impacts education, employment, and livelihood; (iii) violence against women and children; (iv) education and training gaps; and (v) limited capacity to deliver programs for vulnerable women and youth.

227. The “no project” or “do nothing” scenario will not support RMIs National Strategic Plan 2020-2030, National Gender Mainstreaming Policy, and National Adaptation Plan.

B. Site and Design Alternatives

1. Women’s Center

228. Two women-focused civil society organizations (CSO) are well-established and highly successful in RMI: (i) the Women United Together Marshall Islands (WUTMI), the country’s main provider of gender-based violence (GBV) survivor services, and (ii) the Kora Fund, which supports women’s economic empowerment through micro-credit loans and training. However, Majuro has no women’s center or specific facilities where Marshallese women and youth can access skills training and support services. Therefore, MOCIA’s Women’s Center is proposed to support access to training and support services for vulnerable women and at-risk youth.

229. Several sites were considered including possibly locating the Women’s Center at the former University of South Pacific (USP) campus. However, there is an existing land dispute at

³⁹ Government of the Marshall Islands. 2020. *The National Strategic Plan 2020–2030*.

⁴⁰ Government of the Marshall Islands. 2015. *National Gender Mainstreaming Policy*.

⁴¹ Government of the Marshall Islands. 2021. *National Youth Policy 2021–2025*.

the former USP campus, which is deemed not likely to be resolved in time. Due to the existing challenges in land acquisition in Majuro, MOCIA has identified a vacant lot located within the compound of PSS. MOCIA and PSS also agreed to expand the existing “pink building”, which was originally built to house a women’s training center. Further, PSS has plans to renovate its building located adjacent to the “pink building” and the vacant lot. Therefore, it was proposed that this location is deemed appropriate to build the proposed women’s center.

230. Considering that several institutions are involved, the EA and IA will sign a memorandum of understanding (MOU) with PSS regarding the use of PSS land by MOCIA for the women’s center. To mitigate the partial impacts on the existing PSS building, it will be renovated, and one office space and a teacher resource room will be included in the layout of the women’s center.

2. Childcare Center and Family-Friendly Facilities

231. In 2022, CMI reported that female students have 44% probability of continuing to second year compared to 58% for male students. It was also reported that 25% of students, male or female, have dropped out of school due to childcare responsibilities. The proposed childcare center and family-friendly facility will provide students and staff with young children with an option to enable them to attend and continue their studies. CMI has been trying to secure funding for an on-campus childcare center and will be contributing \$1.5 million towards the civil works.

232. Several buildings, including the former customary law and language commission (CLLC) office, and an open space were surveyed for the proposed childcare center. The open space at the boundary of CMI land is under current lease negotiations with the traditional owner while all buildings assessed would require renovation. The other potential building is too small to accommodate a childcare center. The “no action” alternative is not an option as it will not reduce the dropout rates in CMI; as such, CMI will continue lease negotiations with the traditional landowners. An endorsement of the project by the traditional landowners was obtained during the consultation undertaken on 9 May 2024. Demolition of an existing building and construction of a new building is proposed as part of the infrastructure development to realize the childcare center and family-friendly facilities.

3. WAM Seawall

233. The project will reconstruct a community-built seawall close to the expanded women’s center to help protect the new facility as well as nearby youth and education facilities. The current seawall is in dire need of rehabilitation due to the lack of rebar within the walls from the original construction. The exiting seawall was constructed by WAM trainers and may not have conformed with construction standards. Further, the height of the existing seawall does not meet the National Climate Adaptation Plan standards. The “no action” alternative is not an option as it will put the surrounding youth and education facilities as well as the proposed women’s center at continued and likely increased risk from storm surge and more frequent and strong king tides, sea level rise, and other environmental disasters as a result of climate change. Several seawall design options have been proposed by the design engineers in consultation with the Ministry of Public Works, Infrastructure and Utilities. The project has selected a design that is best suited to climate change mitigation and adaptation that meets the National Building Code of RMI gazette in 2021. The

adaptation measures proposed for the rehabilitated seawall will adopt a sloping protection structure using Basalton Quattro blocks as reflected within the RMI National Adaptation Plan.⁴²

VII. CONSULTATIONS AND INFORMATION DISCLOSURE

A. Legislative Framework for Public Consultation

234. Public participation and consultation in the evaluation of project design, planning and implementation is an important part of environmental impact assessment; it can directly reflect the public's perceptions on environmental quality in the project's area of influence. Relevant provisions in the local RMI EPA EIA regulation require public consultation through public disclosure, provision for submission of written comments, design review and RM IEPA approval.

235. ADB's environmental guidelines also have detailed and strict requirements on public participation and consultation. The public consultation processes for this project therefore follow both the RMI requirements and the ADB requirements under the Access to Information Policy 2018.

B. Stakeholder / Community Consultations

236. The RMI EPA and Historic Preservation Office were both consulted regarding the WYSER infrastructure activities, and their advice has been incorporated into this IEE.

237. Representatives of the RMI Government, MOCIA, and PSS were consulted during visits to RMI as part of the WYSER Mission in 2021, 2022 and in 2024. Project activities will be carried out entirely within the boundaries of each proposed site consisting of demolition, refurbishment, new construction, and likely replacements.

238. A public consultation with the traditional landowners of the proposed sites as well as key stakeholders from MOCIA, CMI and PSS was conducted in May 2024. Minutes of the consultation including attendance sheet is provided in Appendix A of this IEE.

239. The public consultation included

- (i) A PowerPoint presentation that described the project, timeline, scope of works and issues related to safety and the environment;
- (ii) Discussions to address any concerns of participants; and
- (iii) Incorporate stakeholder feedback into project design.

240. A record of consultations is provided in Appendix A as an update to this IEE to incorporate feedback from stakeholders and the public. Environmental information on the project was and will be disclosed. This IEE will be made available for review by interested stakeholders at the RMI EPA.

C. Information Disclosure

241. In accordance with the requirements under the SPS 2009, ADB shall post on its website the following documents submitted by MOCIA: (i) the final IEE; (ii) a new or updated EIA or IEE,

⁴² ADB WYSER Project. *Climate Change Assessment*. 2024

and a corrective action plan, if any, prepared during project implementation, upon receipt by ADB. All environmental documents are subject to public disclosure, and therefore will be made available to the public. The IEE will be disclosed on ADB's website upon receipt, as per ADB's Access to Information 2018. In addition, the approved CEMP will also be disclosed provided it does not contain any commercially sensitive information.

VIII. GRIEVANCE REDRESS MECHANISM

242. A Grievance Redress Mechanism (GRM) is proposed for the project to receive and facilitate the resolution of affected peoples' (AP) concerns, complaints, and grievances about the project's environmental and social safeguards performance, as well as other project related matters, including integrity, corruption, fraud and conflict of interest matters. When and where the need arises, this mechanism will be used to address any complaints that may arise during the construction and operation of the project. The grievance mechanism is scaled to the risks and adverse impacts of the project. It addresses AP's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate and readily accessible to all segments of affected people at no costs and without retribution. The mechanism does not impede access to the RMI's judicial or administrative remedies. The EA through the IA will appropriately inform the affected people about the mechanism before commencement of any works.

243. The key functions of the GRM are to: (i) record, categorize and prioritize the grievances; (ii) resolve the grievances in consultation with complainant(s) and other stakeholders; (iii) inform the aggrieved parties about the solutions; and (iv) forward unresolved cases to higher authorities for resolution.

244. Judiciary Level. The project level process detailed below will not impede affected persons access to the RMI legal system. At any time, the complainant may take the matter to the appropriate legal or judicial authority as per the laws of RMI.

A. Objective, Scope and Principles

245. The objective of the project GRM is to establish guidelines for accepting, assessing, resolving, monitoring, and evaluating grievances concerning the project. This mechanism covers policies and procedures related to the management of grievances. It is intended for MOCIA /PIMS/ contractor employees who will process grievance claims, as well as persons wishing to file grievances. The GRM has been developed in accordance with the government's policies and procedures, as well as ADB SPS 2009. The GRM is designed to work within existing legal and cultural frameworks, providing an opportunity to resolve grievances at the project level. Specifically, the project GRM has been designed to:

- (i) Be understandable, culturally appropriate and accessible to project-affected persons, with its availability communicated to residents of the island;
- (ii) Address a wide range of grievances and concerns – both those based in factual data and those arising from perceptions or misperceptions;
- (iii) Be transparent, and allow persons to submit a grievance at no cost and without retribution to the party that expressed the issue or concern;
- (iv) Protect the identity of the persons raising the grievance;
- (v) Resolve concerns in a timely manner, via consultation with stakeholders, or forward any unresolved cases to the relevant authority;

- (vi) Report back to the community (through the Project Steering Committee) periodically on the types of cases and how they were resolved; and
- (vii) Be revised if it is not working effectively.

246. All MOCIA and PIMS employees, contractors and subcontractor personnel involved in the resolution of grievances are required to keep confidential the nature of the claim, the claimants and the outcomes of the resolution process. MOCIA will periodically report back to stakeholders (through the Project Steering Committee) on the types of issues raised and how they were resolved, but this reporting will not feature the names of the aggrieved person/s or claimants, nor provide specific details of the issue/s.

B. Proposed GRM Mechanism

247. Implementing the GRM involves five steps, which are described below in further detail. A project representative will be nominated to act as the grievance officer to receive, review and address project related concerns. The person will be a trusted member of the community and knowledgeable about the project, as well as local and legal forms of grievance redress mechanisms on Majuro.

248. **Step 1: Receive grievance claims.** Grievances, complaints, and concerns are to be submitted to the grievance officers. This can be via MOCIA's contractor or the subcontractors. Contractors and subcontractors will be informed of the GRM, as well as who to notify within MOCIA/PIMS when a grievance claim has been filed. In addition, grievances and concerns can be made: (i) In person at the MOCIA office, (ii) verbally via telephone, (iii) in writing by email to MOCIA nominated email address, and (iv) in writing by letter sent or delivered to MOCIA office.

249. **Step 2: Record and acknowledge grievance claims.** Any person (other than the two grievance officers) receiving the grievance claim will notify the grievance officer who will complete a Grievance Claim Reporting Form (a sample is provided in Appendix B). The grievance officer will provide the claimant with information about the process, their assigned reference number and the timeframe in which a response can be expected.

250. All incoming claims to the grievance officer will be acknowledged within three working days, by the quickest method available. If the claim is received by the grievance officer in person or verbally over the telephone, it will be acknowledged on the spot. If the claim is in writing, then an email, telephone call or text message will be returned acknowledging that the grievance claim has been received, with details of the process and timeframe in which a response can be expected.

251. **Step 3: Screen and assess grievance claims.** Received grievance claims are then screened, assessed, and investigated (if required) by the grievance officer to verify validity. This includes establishing the nature of the grievance to determine the measures needed for review and investigation.

252. The grievance officer will either: (i) Assign personnel (including themselves) to complete actions to resolve the grievance, or (ii) Elevate the claim directly to the MOCIA Secretary to resolve or facilitate the resolution of the grievance. The Secretary will meet with the claimant and then assign personnel to complete actions or establish a grievance committee to aid in the resolution of the grievance. If required, the Secretary will convene a meeting with the Grievance Committee to assist in resolving grievances. The Grievance Committee will include one landowner, and a representative of the relevant project site community.

253. Grievances which do not apply to the project will be referred to the appropriate entity, and the claimant will be notified that the grievance is not valid or does not apply to the project and is referred to the appropriate authority. The Grievance Claim Reporting Form will be kept up to date regarding the status of the grievance claim and the actions required and completed.

254. **Step 4: Decide on a response or resolution and monitor issues.** The grievance officer (and the relevant GRM committee when needed) will decide on the response or resolution of the grievance claim and notify the claimant within 20 working days. The response may be in the form of a written letter/email or verbally through a meeting with the claimant/s or a telephone call. The Grievance Claim Reporting Form will be amended to reflect the closure of the grievance claim and future dates for monitoring. All documentation will be filed according to the reference number assigned and remain confidential. Where an agreement on the resolution cannot be reached or if the claimant is not satisfied with the resolution, the grievance officer will provide the claimant with the details of the MOFBPS as the Executing Agency.

255. **Step 5: Evaluate the GRM and report periodically.** On a periodic basis, the grievance officer will publish an evaluation report on the types of grievance claims and cases that were received and how they were resolved. The evaluation will include a report on the: (i) number and types of grievance claims received; (ii) number of claims that have been resolved/reached agreement; (iii) number of claims that have gone to grievance committee; and (iv) number of claims unresolved. The report should also include an assessment of the effectiveness of the GRM and PIMS in responding to the grievance claims. This report will be shared with the Project Steering Committee.

C. Communication of the GRM

256. Prior to the commencement of onsite works, a signage will be erected at the project worksites providing the public with updated project information and summarizing the GRM process including contact details of relevant persons at MOCIA. All corrective actions and complaint responses carried out on site will be reported back to the PIMS consultant. MOCIA will include the complaints register and corrective actions/responses in its progress reports to the ADB (e.g., monthly report, quarterly performance report, and semi-annual safeguards monitoring report).

257. It is the responsibility of the PIMS to ensure the relevant community is informed of the GRM. The PIMS will translate the GRM into Marshallese and will provide details/training about the GRM to new contractors and the Project Steering Committee (scheduled for month year). Information about the GRM will be publicized at the following locations or events: (i) at MOCIA office; (ii) at construction sites or at the contractor's management office (if one is set up); (iii) notice boards on the island; and (iv) at meetings held with stakeholders.

D. Resources

258. Financial resources to cover the operational costs of the GRM are part of the project budget. Costs for resolving grievance claims will come out of contingency funds set aside for unanticipated social impacts during design and construction. Costs for grievances made during the operation phase will be shouldered by MOCIA.

IX. ENVIRONMENTAL MANAGEMENT PLAN

A. Introduction

259. This section identifies mitigation and management measures to avoid, reduce, mitigate, or compensate adverse environmental impacts that have already been identified in the previous sections. The EMP is a management tool, and the issues are accordingly addressed with regard to the sequence of operations, i.e., those activities that apply to pre-construction, construction, and operation. Environmental mitigation measures have been proposed to avoid or minimize environmental impacts to acceptable levels.

260. This assessment has two EMPs for the proposed physical investments under this subproject. They contain a number of components crucial to effective environmental management for the project, these include: (i) organizational responsibilities (for various aspects of EMP implementation); (ii) plans for mitigation and monitoring of impacts (during pre-construction, construction, and operation); and (iii) costing associated with implementation of all aspects of the EMPs. These are explained in detail in the subsections below.

261. Prior to construction commencing and after detailed designs, the EMPs will be updated, included in the bid and contract documents, and then developed into a detailed CEMP by the contractor. MOCIA will be supported by the PIMS consultants and will be responsible for supervision of approved CEMP implementation through regular observation and spot checks of construction-related activities. MOCIA, with ADB's endorsement, will ensure that the CEMPs is adequately prepared and consistent with the EMP matrix. MOCIA will also ensure that adequate and timely remedial actions are taken by the contractors. Any construction-related problems, along with follow-up actions undertaken, will be reported by the supervising engineer to appropriate parties regarding the previously established and agreed-upon GRM.

B. Institutional Arrangements and Responsibilities

262. The MOFBPS will have overall responsibility for the project as the Executing Agency. MOCIA will have overall responsibility for the project's compliance with environmental safeguard requirements. The established PIMS consultant based within MOCIA with capacity building support from ADB under the project will be responsible for implementing the IEE and the two EMPs and facilitate and supervise the implementation of the EMPs. MOCIA's PIMS consultant will work with the contractor's environmental health and safety officer (EHSO), who are responsible for day-to-day inspection of the site as well as CEMP implementation and reporting. A safeguards specialist(s) under the PIMS consultant will work with the contractor's EHSO to assess CEMP compliance.

263. Table 5 sets out the roles and responsibilities of key organizations in safeguards (environmental management activities) during project implementation.

Table 5: Organizational Environmental Responsibilities

Project Implementation Organization	Management Roles and Responsibilities
Asian Development Bank (ADB)	• Review and approve IEEs/EMPs and provide comment, as required, on CEMPs. • Review bidding documents • Review executing agency and implementing agency's submissions for procurement of goods, equipment, works and services

Project Implementation Organization	Management Roles and Responsibilities
	• Conducts project review missions, midterm review mission and project completion review mission to assess project implementation progress of all outputs, compliance of project to covenants including safeguards requirements • Review semi-annual SMRs
Ministry of Finance, Banking and Postal Services (executing agency)	• Guide and monitor overall project execution. • Financial oversight • Ensure flow of funds to the implementing agency and the timely availability of counterpart funding • Overall responsibility for implementing environmental safeguard requirements of the project; and • Semi-annual safeguard monitoring reports to ADB.
Project Steering Committee (PSC)	• Responsible for oversight and providing guidance and strategic direction to MOCIA with respect to project implementation. • Ensure that the PIMS consultant is provided with the necessary resources to effectively carry out its duties and responsibilities.
Project implementation and management supervision (PIMS) consultant under MOCIA	• Responsible for overall project management, implementation, and monitoring • Review and coordinate evaluation of bids for works, goods, and consultant services • Responsible for MOCIA application for a Development Consent • Prepare the IEEs and EMPs based on the detailed design and submit to ADB for clearance. • Ensure environmental safeguard concerns are incorporated in the detailed engineering design • Disclose safeguard documents, as appropriate • Submit monthly, quarterly, semi-annual, and annual monitoring report to MOCIA Management and ADB • Review and clear the CEMP of contractors • Review contractor's monthly reports • Implement the GRM and maintain records of complaints/grievances • Ensure the contractor observes the GRM requirements • Ensure contractor compliance with required resources for mitigation measures as reflected in the CEMP • Undertake consultation and disclosure events
Contractor (through EHSO)	• Prior to construction, prepares and submit the CEMP to the PIMS consultant's Safeguards Specialist for review and approval; • Obtain statutory permits/clearances for establishment and operation of contractor(s) facilities; • Understand the EMP requirements and allocate necessary resources for implementation • Activates an Environmental Health and Safety Officer (EHSO) to ensure that the contractor complies with all requirements concerning environmental, health and safety, and labor regulations during construction • Implement construction activities with the required mitigation measures • Conduct environmental monitoring as required by EMP • Act promptly on complaints and grievances concerning the construction activities in accordance with the project's GRM

Project Implementation Organization	Management Roles and Responsibilities
	• Submit monthly progress reports on CEMP/EMP implementation to the PIMS consultant
RMI EPA	• Responsible for processing of MOCIA application for a Development Consent • Monitors construction progress for compliance with the terms of the issued Development Consent • Monitors implementation of the mitigation measures and the EMP in general

C. Mitigation Measures

264. Most of the pre-construction phase environmental mitigation measures are already established within best engineering design practices. The pre-construction work concludes with the integration of the EMP conditions into the bid and contract documents and the evaluation and selection of the contractor. Environmental mitigation measures have been designed to avoid potential impacts where possible and to mitigate impacts that cannot be avoided.

265. Environmental impacts identified during construction are limited in size, site specific, and temporary in nature. The activities would normally be recognized as Best Construction Practices. Implementation of this EMP and mitigation measures will ensure compliance with obligations under the RMI EPA legislation and regulations. The two EMP's will also ensure ADB safeguard standards are met. Some operational environmental impacts are anticipated, including waste, wastewater, noise, dust, community and occupational health, and safety. These environmental impacts are anticipated to be minor and will be addressed through conventional operation and maintenance practices, health and safety codes and measures included in the operations aspects of the EMP. Demolition impacts are also anticipated including waste generation, coastal erosion around the seawall works, recycling and repurpose of demolition waste.

266. To ensure mitigation measures contained in the EMP are successfully implemented:

- (i) The EMP will be updated after detailed design and included in tender documentation.
- (ii) The contractor(s) shall prepare a construction EMP (CEMP) describing the project and site-specific measures that will be implemented to comply with the EMP
- (iii) The contractor(s) will submit its CEMP to MOCIA's PIMS consultant for review and approval prior to the commencement of construction.
- (iv) The PIMS consultant will ensure there are sufficient resources to oversee the implementation of the EMP at the project site.

267. The EMPs (including monitoring requirements) are presented in Table 6 (Women Centre and CMI Childcare and Family-Friendly Facilities) and Table 7 (Seawall and Revetment).

Table 6: Environmental Management and Monitoring Plan for MOCIA Women Center CMI Childcare and Family-Friendly Facilities

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
PRE-CONSTRUCTION							
Climate change vulnerability	Climate change adaptation measures are: (i) engineering assessment on potential site erosion (ii) appropriate erosion protection for the new construction will be determined	Part of detailed design cost	Design Consultant	PIMS	Engineering drawings and specifications	Verification of engineering drawings and specifications	Minimal cost (part of consultant's task)
Improper implementation of EMP	Tender documents and construction contract will require the following: (i) issuance of Contractor's Environmental and Social Management Plan (CESMP) framework to bidders (ii) preparation of CESMP prior to construction activities (iii) review and approval of CESMP by the PIMS prior to site mobilization	Part of contractors' bid cost	Design Consultant and Contractor	PIMS	CESMP	CESMP submission prior to commencement of site works	Minimal cost (part of contractor's task)
Complaints due to project-related impacts	The PIMS and the contractors will: (i) establish the approved project's grievance redress mechanism (GRM) (ii) publicize the existence of the project's GRM through campaigns, website, billboards, etc. (iii) ensure that the contact details are placed on notice boards and/or website.	Part of contractors' bid cost	Contractor	PIMS	▪ Consultation meetings ▪ Tender documents ▪ GRM activated with community advisory committees (CACs)	▪ Verification of meeting documents, tender documents and in placed CACs ▪ After completion of meetings ▪ Once after preparation of tender documents prepared	Minimal cost (part of contractor's task)
Extraction of local construction materials	The contractor will provide sufficient information about the source of construction materials to be used in the project. Sources such as quarries and borrow pits should be: (i) Licensed (ii) Covered by required government permits	Part of contractors' bid cost	Contractor	PIMS	▪ Government permits, license of quarries and borrow pits ▪ Operational and	▪ Visual inspection of source ▪ Verification of operational and abandonment plan ▪ Weekly	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(iii) Provided with drainage and sediment flow controls				abandonment plan		
Land Access Arrangements	MOCIA will use existing land and road easements to avoid or at least minimize involuntary settlement impact. Land acquisition will be avoided through successful negotiation with an FTE holder to provide an easement.	To be part of the project cost.	MOCIA	PIMS	Detail design minimizes relocation	No Relocation.	Minimal by PIMS
Environmental Capacity Development	The contractor prior to mobilization will conduct orientation for its workers and subcontractors on the provisions of the CEMPs focusing of the mitigating measures to minimize impact of construction.	Part of contractors' bid cost	Contractor	PIMS	Number of trainings conducted, and workers trained	Attendance sheets	Part of contractor's cost
Introduction of Alien Species	All construction equipment will be sourced locally. In case that there are equipment and materials to be imported, these including the vessels that import them will be subjected to clearance procedures under the Bio-Security Act and Regulations and may require issuance of phytosanitary certificates from Biosecurity RMI.	Part of contractors' bid cost	Contractor	PIMS	Phytosanitary certificates from Biosecurity and RMI EPA	Verification of certificates	Minimal cost to MOCIA
Potential damage to unknown archaeological and cultural assets	Tender documents and construction contact will include a provision that will: (i) require construction activities to be stopped immediately upon discovery of any unknown archaeological, UXO, and cultural assets; and (ii) the contractor will promptly inform the local authorities and the Chuuk State National Museum including UXO expert	Part of contractor's bid cost	Contractor	PIMS	Specific provision in tender documents on archaeological/ cultural relics	Verify tender documents/ once after tender documents prepared	As per contractor's contract;
CONSTRUCTION							
Environmental impacts on the sensitive receptors (churches, schools, hospitals, etc.)	Use of CEMP and construction methodology which results in lesser disruption to public especially identified sensitive receptors.	Part of contractors' bid cost	Contractor	PIMS	- Contractors' construction methodology - Notification of affected stakeholders especially sensitive receptors	- Verification of construction methodology - Coordination meetings and notifications	Minimal cost to MOCIA
Soil erosion and sedimentation control	Earthworks and area to be exposed carefully planned; Measures to divert surface runoffs away from the exposed areas and to prevent sediments from moving offsite may include:	Part of contractors' bid cost	Contractor	PIMS	- Disturbed sites - Use of appropriate	Visual inspection of sites	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(i) small interceptor dikes, (ii) pipe slope drains, (iii) grass bale barriers, (iv) silt fence, (v) sediment traps, and (vi) temporary sediment basins; (vii) replanting disturbed areas The contractor will be required to prepare an erosion and sediment control plan as part of their as design works.				sediment controls	▪ Verification of plans ▪ Daily during rainy periods	
Loss of vegetation	PIMS and the contractors will if required: (i) Conduct bio-physical assessments (ii) Limiting vegetation clearing (iii) Provide temporary fencing to retained vegetation (iv) Securing tree cutting permit (v) Promote restoration by planting trees near the project site	Part of contractors' bid cost	Contractor	PIMS	▪ Disturbed sites ▪ Plans and permits and clearances from relevant government agencies	▪ Visual inspection of sites ▪ Verification of plans and permitting requirements	Minimal cost to MOCIA
Demolition and disposal of excavation spoils and other solid wastes	The PIMS will: (i) require waste management plan as part of the CEMP; (ii) provision of garbage bins for temporary storage of waste (iii) separate solid waste into hazardous, non-hazardous, and reusable waste (iv) regular disposal of wastes to an accepted disposal site (v) require the contractor's disposal plan and inspection of disposal site prior to construction. (vi) If ACM is confirmed during demolition, then removal and disposal by certified contractor	Part of contractor bid cost	Contractor	PIMS	Contractor's disposal plan	▪ Inspection of disposal site ▪ After submission of disposal plan	Minimal cost to MOCIA
Oil and hazardous materials management	Measures for clean-up and handling of contaminated materials: (i) Training on how to handle fuels/hazardous substances and how to contain spills (ii) Provision of spill cleanup materials such as absorbent pads, (iii) Immediate clean-up of spills	Part of contractors' bid cost	Contractor	PIMS	▪ Measures required to prevent accidental releases	▪ Visual inspection of storage area; ▪ Verification of records ▪ Daily and as necessary	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(iv) Collection and disposal of oil-stained wastes and used oil through authorized waste handlers and waste facilities (v) Restoration of temporary work sites will include removal, treatment, and proper disposal of oil contaminated soils,				▪ Records of accidental releases ▪ Measures for clean-up and handling of contaminated materials ▪ Training records of personnel for hazardous materials;		
Dust and on-site air pollution due to construction activities	Measures for air pollution due to construction activities: (i) regular water spraying of roads, work areas and other construction-related facilities to minimize dust generation (ii) provision of cover in storage area of construction materials, stockpiles, and spoils to prevent fine materials from being blown (iii) Prohibit use of equipment and vehicles that emit dark sooty emissions (iv) Provision of tight tarpaulin cover on delivery trucks to avoid spills and dust emission; and (v) Prohibit burning of all types of wastes generated	Part of contractors' bid cost	Contractor	PIMS	▪ Dust generation ▪ Smoke emitting equipment, ▪ Open burning of materials	▪ Visual inspection of sites ▪ Daily	Minimal cost to MOCIA
Construction noise and vibration	Measures for construction noise and vibration: (i) Prior notification to the community on schedule of construction activities especially nighttime activities (ii) Provision of noisy equipment with noise reduction covers (iii) Position stationary noisy equipment (genset, compressors, batching, and rock crushing plant, etc.) away from houses and other receptors (iv) If possible, avoid working during nighttime (19:00-06:00)	Part of contractors' bid cost	Contractor	PIMS	▪ Noise level ▪ Normal operation schedule	▪ Noise meter ▪ Daily / as necessary	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(v) Conduct regular noise level monitoring (the limits near residential area are 55 and 45 dB(A) during daytime and nighttime, respectively)						
Vehicular traffic congestion hindrance to public access	Measures for accessibility: (i) Preparation of traffic management and control plan as part of the CEMP (ii) Coordinate with local authorities for any closure of roads or rerouting of vehicular traffic (iii) Provision of traffic signs in the vicinity of the construction sites (iv) Consideration on schedules of festivities, processions, parades, etc.	Part of contractors' bid cost	Contractor	PIMS	▪ Traffic signs in vicinity of construction sites ▪ Schedule of festivities, processions, parades, etc.	▪ Verification of traffic management plan ▪ Visual inspection of sites ▪ Daily	Minimal cost to MOCIA
Community health and safety	Measures for community health and safety: (i) Use barriers and install signage (ii) Provision of security personnel in hazardous areas to restrict public access (iii) Operate construction night light at the vicinity of construction sites; and (iv) Provision of adequate safe passageways for the public crossing the construction sites (v) Advise local community of site health and safety site plans and seek feedback on appropriate mitigation measures via Community Advisory Committee meetings.	Part of contractors' bid cost	Contractor	PIMS	▪ Construction safety policy ▪ Hazards in the area ▪ Safety control such as signages, lightings, and barriers ▪ Health and safety records (near miss, first aide, lost time accident)	▪ Verification of construction safety policy and health and safety record ▪ Visual inspection of site ▪ Daily	Minimal cost to MOCIA
Occupational health and safety at work sites	Measures include: (i) Implementation of a health and safety plan (HSP) as part of their CESMP (ii) Ensure that first aid station is always available (iii) Provision of appropriate personal protective equipment (PPE), (iv) Provision of emergency response equipment such as fire-fighting equipment, fire extinguishers, etc. (v) Provision of potable water and adequate sanitation facilities,	Part of contractors' bid cost	Contractor	PIMS	▪ Construction of health and safety plan ▪ First aid station, PPE, emergency response equipment and sanitation facilities ▪ Health and safety records	▪ Verification of health and safety plan ▪ Verification of health and safety record ▪ Visual inspection of site ▪ Daily	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(vi) Provision of workers with adequate and well-ventilated camps, clean eating areas, and separate sleeping quarters for male and female workers.				(near miss, first aide, lost time accident)		
Potential social issues due to influx of workers	Measures include: (i) Induction of the workers on community health and safety, grievance redress mechanism, and consultation and communications plan; (ii) Implementation of protocols concerning the workers contact between the local communities; (iii) Implementation of a communicable disease awareness and prevention program on the risk of disease spreading including STIs and HIV; and (iv) Provision of fence and warning signs to control unauthorized entry and prevent entry of the public (v) Workers participation in addressing GBV issues will be set in an environment where workers can openly converse with about these concerns. (vi) Implementation of GBV awareness training program for contractors (vii) Ensure that no child labor will be employed in the project; ensure that all workers are adults above the age of 18 years.	Part of contractors' bid cost	Contractor	MOCIA's PIMS	- Implementation of workers induction, required protocols, and disease awareness and prevention program - Records of workers	- Verification of records - Visual inspection of site - At start of work - Monthly	Minimal cost to MOCIA
Potential damage to hidden archaeological and cultural assets	Tender documents and construction contract will require the following: (i) Immediate stoppage upon discovery of archaeological and cultural assets (ii) Inform the local authorities about the presence	Part of specs preparation cost	Design Consultant	PIMS	Tender documents	- Verification of tender documents - Once after preparation of tender documents	Minimal cost (part of consultant's task)
Improper closure of construction sites after	Site restoration and removal of all temporary facilities, excess materials, equipment, plant, and excavated materials on site; all dumping shall be to approved locations. Replanting of disturbed sites in accordance with replanting plan.	Part of contractors' bid cost	Contractor	PIMS	Disturbed sites, staging areas, and workers camps.	- Visual inspection of sites - Review and "clear" site	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
subproject completion.						remediation through issue of certificate ▪ Once when all site work is complete	
DEMOBILIZATION							
Generation of waste materials due to clean-up	Proper waste segregation, recycling where possible, and disposal of waste at authorized waste management facility.	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and "clear" site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA
Hazardous materials are often leftover after construction phase	Proper disposal of paints, thinners, and hazardous materials including ACMs are to be disposed properly at waste management facility or exported to an authorized waste management facility.	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and "clear" site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA
Removal of equipment and temporary structures can disturb the soil and lead to erosion	Stabilizing disturbed areas as soon as possible and implementing erosion control measures	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and "clear" site remediation through issue of certificate	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
						Once when all site work is complete	
Clean-up activities can damage local vegetation	Replanting native species where feasible and protecting existing vegetation during cleanup	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	- Visual inspection of sites - Review and "clear" site remediation through issue of certificate - Once when all site work is complete	Minimal cost to MOCIA

Table 7: Environmental Management and Monitoring for Seawall and Revetment

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
PRE-CONSTRUCTION							
Climate change vulnerability	Climate change adaptation measures are: (i) engineering assessment on potential site erosion (ii) appropriate erosion protection for construction will be determined (iii) Seawall to be constructed	Part of detailed design cost	Design Consultant	PIMS	Engineering drawings and specifications	Verification of engineering drawings and specifications Once	Minimal cost (part of consultant's task)
Improper implementation of EMP	Tender documents and construction contract will require the following: (i) issuance of Contractor's Environmental and Social Management Plan (CESMP) framework to bidders (ii) preparation of CESMP prior to construction activities	Part of contractors' bid cost	Design Consultant and Contractor	PIMS	CESMP	CESMP submission prior to commencement of site works	Minimal cost (part of contractor's task)

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(iii) review and approval of CESMP by the PIMS prior to site mobilization						
Complaints due to project-related impacts	The PIMS and the contractors will: (i) establish the approved project's grievance redress mechanism (GRM) (ii) publicize the existence of the project's GRM through campaigns, website, billboards, etc. (iii) ensure that the contact details are placed on notice boards and/or website.	Part of contractors' bid cost	Contractor	PIMS	▪ Consultation meetings ▪ Tender documents ▪ GRM activated with community advisory committees (CACs)	▪ Verification of meeting documents, tender documents and in placed CACs ▪ After completion of meetings ▪ Once after preparation of tender documents prepared	Minimal cost (part of contractor's task)
Extraction of local construction materials	The contractor will provide sufficient information about the source of construction materials to be used in the project. Sources such as quarries and borrow pits should be: (i) Licensed (ii) Covered by required government permits (iii) Provided with drainage and sediment flow controls	Part of contractors' bid cost	Contractor	PIMS	▪ Government permits, license of quarries and borrow pits ▪ Operational and abandonment plan	▪ Visual inspection of source ▪ Verification of operational and abandonment plan ▪ Weekly	Minimal cost to MOCIA
Land Access Arrangements	MOCIA will use existing land and road easements to avoid or at least minimize involuntary settlement impact. Land acquisition will be avoided through successful negotiation with an FTE holder to provide an easement.	To be part of the project cost.	MOCIA	PIMS	Detail design minimizes relocation	No Relocation.	Minimal by PIMS
Environmental Capacity Development	The contractor prior to mobilization will conduct orientation for its workers and subcontractors on the provisions of the CEMPs focusing of the mitigating measures to minimize impact of construction.	Part of contractors' bid cost	Contractor	PIMS	Number of trainings conducted, and workers trained	Attendance sheets	Part of contractor's cost

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
Introduction of Alien Species	All construction equipment will be sourced locally. In case that there are equipment and materials to be imported, these including the vessels that import them will be subjected to clearance procedures under the Bio-Security Act and Regulations and may require issuance of phytosanitary certificates from Biosecurity RMI.	Part of contractors' bid cost	Contractor	PIMS	Phytosanitary certificates from Biosecurity and RMI EPA	Verification of certificates	Minimal cost to MOCIA
Potential damage to unknown archaeological and cultural assets	Tender documents and construction contract will include a provision that will: (i) require construction activities to be stopped immediately upon discovery of any unknown archaeological, UXO, and cultural assets; and (ii) the contractor will promptly inform the local authorities and the Chuuk State National Museum including UXO expert	Part of contractor's bid cost	Contractor	PIMS	Specific provision in tender documents on archaeological/ cultural relics	Verify tender documents/ once after tender documents prepared	As per contractor's contract;
CONSTRUCTION							
Environmental impacts on the sensitive receptors (churches, schools, hospitals, etc.)	Use of CEMP and construction methodology which results in lesser disruption to public specially the sensitive receptors.	Part of contractors' bid cost	Contractor	PIMS	- Contractors' construction methodology - Notification of affected stakeholders especially sensitive receptors	- Verification of construction methodology - Coordination meetings and notifications	Minimal cost to MOCIA
Soil erosion and sedimentation control	Earthworks and area to be exposed carefully planned; Measures to divert surface runoffs away from the exposed areas and to prevent sediments from moving offsite may include: (i) small interceptor dikes, (ii) pipe slope drains, (iii) grass bale barriers, (iv) silt fence, (v) sediment traps, and (vi) temporary sediment basins; (vii) replanting disturbed areas	Part of contractors' bid cost	Contractor	PIMS	- Disturbed sites - Use of appropriate sediment controls	- Visual inspection of sites - Verification of plans - Daily during rainy periods	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	The contractor will be required to prepare an erosion and sediment control plan as part of their design works.						
Loss of vegetation	PIMS and the contractors will if required: (i) Conduct bio-physical assessments (ii) Limiting vegetation clearing (iii) Provide temporary fencing to retained vegetation (iv) Securing tree cutting permit (v) Promote restoration by planting trees near the project site	Part of contractors' bid cost	Contractor	PIMS	▪ Disturbed sites ▪ Plans and permits and clearances from relevant government agencies	▪ Visual inspection of sites ▪ Verification of plans and permitting requirements	Minimal cost to MOCIA
Demolition and disposal of excavation spoils and other solid wastes	The PIMS will: (i) require waste management plan as part of the CEMP; (ii) provision of garbage bins for temporary storage of waste (iii) separate solid waste into hazardous, non-hazardous, and reusable waste (iv) regular disposal of wastes to an accepted disposal site (v) require the contractor's disposal plan and inspection of disposal site prior to construction. (vi) Reuse seawall demolition materials based on design and when feasible	Part of contractor bid cost	Contractor	PIMS	▪ Contractor's disposal plan	▪ Inspection of disposal site ▪ After submission of disposal plan	Minimal cost to MOCIA
Oil and hazardous materials management	Measures for clean-up and handling of contaminated materials: (i) Training on how to handle fuels/hazardous substances and how to contain spills (ii) Provision of spill cleanup materials such as absorbent pads, (iii) Immediate clean-up of spills (iv) Collection and disposal of oil-stained waste and used oil	Part of contractors' bid cost	Contractor	PIMS	▪ Measures required to prevent accidental releases ▪ Records of accidental releases ▪ Measures for clean-up and handling of	▪ Visual inspection of storage area; ▪ Verification of records ▪ Daily and as necessary	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	through authorized waste handlers and waste facilities (v) Restoration of temporary work sites will include removal, treatment, and proper disposal of oil contaminated soils,				contaminated materials ▪ Training records of personnel for hazardous materials;		
Dust and on-site air pollution due to construction activities	Measures of air pollution due to construction activities: (i) regular water spraying of roads, work areas and other construction-related facilities to minimize dust generation (ii) provision of cover in storage area of construction materials, stockpiles, and spoils to prevent fine materials from being blown (iii) Prohibit the use of equipment and vehicles that emit dark sooty emissions (iv) Provision of tight tarpaulin cover on delivery trucks to avoid spills and dust emission; and (v) Prohibit burning of all types of wastes generated	Part of contractors' bid cost	Contractor	PIMS	▪ Dust generation ▪ Smoke emitting equipment, ▪ Open burning of materials	▪ Visual inspection of sites ▪ Daily	Minimal cost to MOCIA
Construction noise and vibration	Measures for construction noise and vibration: (i) Prior notification to the community on schedule of construction activities, especially nighttime activities (ii) Provision of noisy equipment with noise reduction covers (iii) Position stationary noisy equipment (genset, compressors, batching, and rock crushing plant, etc.) away from houses and other receptors (iv) If possible, avoid working during nighttime (19:00-06:00)	Part of contractors' bid cost	Contractor	PIMS	▪ Noise level ▪ Normal operation schedule	▪ Noise meter ▪ Daily / as necessary	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(v) Conduct regular noise level monitoring (the limits near residential area are 55 and 45 dB(A) during daytime and nighttime, respectively)						
Vehicular traffic congestion hindrance to public access	Measures for accessibility: (i) Preparation of traffic management and control plan as part of the CEMP (ii) Coordinate with local authorities for any closure of roads or rerouting of vehicular traffic (iii) Provision of traffic signs in the vicinity of the construction sites (iv) Consideration of schedules of festivities, processions, parades, etc.	Part of contractors' bid cost	Contractor	PIMS	▪ Traffic signs in vicinity of construction sites ▪ Schedule of festivities, processions, parades, etc.	▪ Verification of traffic management plan ▪ Visual inspection of sites ▪ Daily	Minimal cost to MOCIA
Community health and safety	Measures for community health and safety: (i) Use barriers and install signage (ii) Provision of security personnel in hazardous areas to restrict public access (iii) Operate construction night light at the vicinity of construction sites; and (iv) Provision of adequate safe passageways for the public crossing the construction sites (v) Advise local community of site health and safety site plans and seek feedback on appropriate mitigation measures via Community Advisory Committee meetings.	Part of contractors' bid cost	Contractor	PIMS	▪ Construction safety policy ▪ Hazards in the area ▪ Safety control such as signages, lightings, and barriers ▪ Health and safety records (near miss, first aide, lost time accident)	▪ Verification of construction safety policy and health and safety record ▪ Visual inspection of site ▪ Daily	Minimal cost to MOCIA
Occupational health and safety at work sites	Measures include: (i) Implementation of a health and safety plan (HSP) as part of their CESMP	Part of contractors' bid cost	Contractor	PIMS	▪ Construction of health and safety plan	▪ Verification of health and safety plan	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(ii) Ensure that first aid stations are always available (iii) Provision of appropriate personal protective equipment (PPE), (iv) Provision of emergency response equipment such as fire-fighting equipment, fire extinguishers, etc. (v) Provision of potable water and adequate sanitation facilities, (vi) Provision of workers with adequate and well-ventilated camps, clean eating areas, and separate sleeping quarters for male and female workers.				▪ First aid station, PPE, emergency response equipment and sanitation facilities ▪ Health and safety records (near miss, first aide, lost time accident)	▪ Verification of health and safety record ▪ Visual inspection of site ▪ Daily	
Potential social issues due to influx of workers	Measures include: (i) Induction of the workers on community health and safety, grievance redress mechanism, and consultation and communications plan; (ii) Implementation of protocols concerning the workers' contact between the local communities; (iii) Implementation of a communicable disease awareness and prevention program on the risk of disease spreading including STDs and HIV; and (iv) Provision of fence and warning signs to control unauthorized entry and prevent entry of the public (v) Worker's participation in addressing GBV issues will be set in an environment where workers can openly converse with about these concerns. (vi) Implementation of GBV awareness training program for contractors	Part of contractors' bid cost	Contractor	MOCIA's PIMS	▪ Implementation of workers induction, required protocols, and disease awareness and prevention program ▪ Records of workers	▪ Verification of records ▪ Visual inspection of site ▪ At start of work ▪ Monthly	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
	(vii) Ensure that no child labor will be employed in the project; ensure that all workers are adults above the age of 18 years.						
Potential damage to hidden archaeological and cultural assets	Tender documents and construction contract will require the following: (i) Immediate stoppage upon discovery of archaeological and cultural assets (ii) Inform the local authorities about the presence	Part of specs preparation cost	Design Consultant	PIMS	▪ Tender documents	▪ Verification of tender documents ▪ Once after preparation of tender documents	Minimal cost (part of consultant's task)
Improper closure of construction sites after subproject completion.	Site restoration and removal of all temporary facilities, excess materials, equipment, plant, and excavated materials on site; all dumping shall be to approved locations. Replanting of disturbed sites in accordance with replanting plan.	Part of contractors' bid cost	Contractor	PIMS	▪ Disturbed sites, staging areas, and workers camps.	▪ Visual inspection of sites ▪ Review and "clear" site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA
DEMOBILIZATION							
Generation of waste materials due to clean-up	Proper waste segregation, recycling where possible, and disposal of waste at authorized waste management facility.	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and "clear" site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA
Hazardous materials are often leftover after construction phase	Proper disposal of paints, thinners, and hazardous materials including ACMs are to be disposed properly at waste management facility or exported to an authorized waste management facility.	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and "clear" site remediation	Minimal cost to MOCIA

Activity/ Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Mitigation Cost	Implementation	Supervision/ Monitoring	Aspects/ Parameters to be monitored	Means of Monitoring/ Frequency	Monitoring Cost
						through issue of certificate ▪ Once when all site work is complete	
Removal of equipment and temporary structures can disturb the soil and lead to erosion	Stabilizing disturbed areas as soon as possible and implementing erosion control measures	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and “clear” site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA
Clean-up activities can damage local vegetation	Replanting native species where feasible and protecting existing vegetation during cleanup	Part of contractors' bid cost	Contractor	PIMS	work sites, staging areas, and workers camps	▪ Visual inspection of sites ▪ Review and “clear” site remediation through issue of certificate ▪ Once when all site work is complete	Minimal cost to MOCIA

X. MONITORING AND REPORTING

268. Environmental monitoring is an integral component of an environmental impact assessment to, (i) combat uncertainties pertaining to unanticipated impacts; (ii) ensure mitigation measures are working; and (iii) reassure the public on the progress of the development. Progressive monitoring must accompany various stages of the sub-project activities (preconstruction, construction, and operational phase). The monitoring program will be conducted on two levels (i) baseline monitoring and (ii) compliance monitoring, to determine the extent of variations and changes in the levels of pollutants in the environment and other parameters and indicators considering the implementation or operation of the subproject. The monitoring meets two objectives to ensure: (i) that mitigation measures are effective in reducing/managing impacts, and identify corrective actions as required; and (ii) that safeguard requirements are being complied with by the contractor and the implementing agency (on behalf of government).

269. **Pre-construction monitoring.** During the pre-construction phase any gaps in the baseline will be filled. It is in the pre-construction phase where requirements for environmental monitoring in the construction phase can be legally required (also aligned with any specific conditions by the RMI EPA) by placing specific provisions on environmental monitoring in the: (i) subproject specifications, (ii) bidding documents, and (iii) construction contracts. Relevant aspects of each subproject's EMP shall be incorporated in these documents.

270. **Construction monitoring.** Contractors are expected to implement the relevant aspects of the two EMP as per their approved CEMP during execution of the demolition and construction activities as stipulated in their contracts. The contractors' CEMP will detail the monitoring plan (based on the two EMPs prepared in this IEE) with details on staff, resources, implementation schedules, and monitoring procedures (parameters, frequency, etc.). Compliance with the approved CEMP will be the basis for inspections and audits by the PIMS consultant and ADB. The Bidding Documents will include provisions requiring the contractor to submit their CEMP which will include a section on monitoring which should be linked to allocation of budget and staff for implementation.

271. **Reporting.** The quarterly progress report (QPR) of the PIMS consultant will summarize the contractor's monthly reports in respect to safeguards as well as any grievances lodged. The semi-annual safeguards monitoring reports (SMR) prepared by the MOCIA (supported as required by the PIMS consultant) will be submitted to ADB and will incorporate the monthly and quarterly reporting. The PIMS consultant will be the primary entity responsible for reporting the progress of project implementation to ADB. Monitoring will include a review of each contractor's monthly reports covering progress of CEMP implementation and compliance (including general good practice). Reporting will adhere to the following schedule:

- (i) A monthly report prepared during demolition and construction by the contractor reporting on progress of CEMP activities, issues, and corrective actions;
- (ii) A QPR prepared by the PIMS consultant. The QPR will include a section on environmental safeguards and CEMP compliance for each project component and will summarize the monthly reports submitted by the contractor and any actions or citations made by the Project Engineer;
- (iii) A semi-annual safeguard monitoring report (SMR), prepared every 6 months by the PIMS consultant under MOCIA, submitted to and disclosed by ADB. An outline of the semi-annual report is provided in Appendix C; and

- (iv) The project completion report will include a section on safeguards implementation and make recommendations as required for modifications to the EMP procedures based on the review undertaken at the end of the project. The safeguards section will be prepared by the PIMS consultant three months prior to the end of the project.

XI. CONCLUSIONS

272. The project proposed in this IEE will support the Government of the Republic of the Marshall Islands to improve young people's access to productive livelihoods and decent jobs and help to reduce harmful gender and social norms that inhibit young women's economic empowerment. Furthermore, the project activities are aligned with the national youth policy to ensure "An enabling and sustainable environment built where all adolescents, young people and youth of the Marshall Islands develop their full capacity and potential to be independent and contribute meaningfully to sustainable development and peace for the nation, through strategic partnerships and collaboration with local communities, families, churches, government, nongovernmental organizations, regional and international agencies".⁵²

273. The anticipated impacts and risks are localized, small-scale and will mostly occur during the construction stage and can be readily managed or mitigated with measures identified in the EMP. All possible construction-related impacts will be managed by the PIMS consultant and Contractor. During construction, the contractor and MOCIA, supported by the PIMS consultant, will be responsible for monitoring and supervising compliance with the EMP. The project will establish a grievance redress mechanism to resolve complaints or issues.

274. The IEE concludes that there are no significant adverse environmental impacts nor is the project deemed environmentally sensitive. The assessment and due diligence findings establish that the project sites are not located in ecologically important areas and will not have any significant social and cultural impacts. Impacts arising from the projects are largely temporary during the construction phase, and are manageable providing that the mitigation measures set out in the EMP are incorporated in the design, implemented, and monitored properly through the contractor's EMP.

275. No further environmental assessment is warranted and the EMP (and subsequent update) is considered sufficient to meet the ADB SPS and CSS requirements. The Project's environmental categorization of "Category B" is confirmed. The IEE will be made available at public locations in the project areas and will be disclosed to a wider audience via the ADB and MOCIA websites. The consultation process will be extended through to project implementation to ensure that stakeholders are fully engaged in the project and have an opportunity to participate in its development and implementation.

⁵² RMI National Youth Policy 2021–2025

STAKEHOLDER CONSULTATIONS

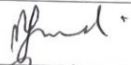
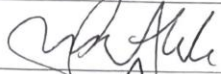
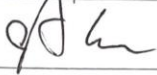
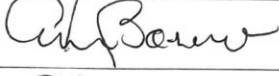
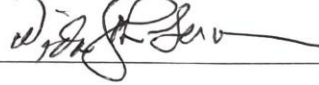
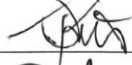
9 May 2024

Consultation with Landowners at CMI

The primary focus of the community consultation was to ensure traditional landowners and key stakeholders are aware of the proposed project activities on their traditional lands. An additional purpose is allowing the project to collect feedback regarding proposed project activities including community concerns.

Two groups of landowners attended the community consultation – the traditional landowners for the PSS leased land which houses WAM and the ‘pink’ building and proposed space for the new two-story women’s center extension, and the traditional landowners of CMI. Other key stakeholders also attended the consultation including senior staff from PSS, MOCIA, WAM and CMI.

Community feedback from the consultation included concerns regarding parking at the women’s center and providing additional water tanks for water harvesting at the new women’s center extension building. The CMI location has sufficient parking and water tanks will be relocated and reconnected after construction.

Community Consultations May 9, 2024 sign in sheet CMI 6pm-8pm		
Name	Signature	Gender
1. Rigieta Lord		F
2. Tony Alik		M
3. Antari Elbon		M
4. Yshiwata Lomae		M
5. Rubida Hermios		F
6. Eunice Boreau		F
7. Margaret Alee-Bigler		F
8. Edward Baron Bigler		M
9. Elizabeth Surteij		F
10. Wida Johnson-Term (Lynn Term)		F
11. Stevenson Koffon		M
12. Jones Napking		M
13. Sandy Dismas		F
14. X		
15.		

Project Title RMI: Preparing the Youth Skills Development and Employment Project - 01 Consulting Firm to Prepare the Marshall Islands Youth Skills Development and Employment Project

IBF reference 17634 Funding reference TA 56192-002

Date 09/05/2024

DECLARATION

I, the undersigned Margaret Alee Bigler (name)

confirm receipt of USD \$100 K and K supermarket gift card from IBF

as Consultation Allowance relevant to the participation in the role of Community Landowner to the Communities Consultation Workshop held in Majuro on May 9th 2024

COMMUNITY GROUP: Majuro Leroy Ester Zedkaia

NAME:

DATE OF BIRTH:

ID NUMBER- SS NUMBER:

ADDRESS:

SIGNATURE



Project Title RMI: Preparing the Youth Skills Development and Employment Project - 01 Consulting Firm to Prepare the Marshall Islands Youth Skills Development and Employment Project

IBF reference 17634 Funding reference TA 56192-002

Date 09/05/2024

DECLARATION

I, the undersigned Jones Napking (name)

confirm receipt of USD \$100 K and K supermarket gift card from IBF

as Consultation Allowance relevant to the participation in the role of Community Landowner to the Communities Consultation Workshop held in Majuro on May 9th 2024

COMMUNITY GROUP: Lotoit, Uliga

NAME: Jones Napking

DATE OF BIRTH:

ID NUMBER- SS NUMBER:

ADDRESS:

SIGNATURE



Project Title RMI: Preparing the Youth Skills Development and Employment Project - 01 Consulting Firm to Prepare the Marshall Islands Youth Skills Development and Employment Project

IBF reference 17634 Funding reference TA 56192-002

Date 09/05/2024

DECLARATION

I, the undersigned WIDA Johnson-Tenau (name)

confirm receipt of USD \$100 K and K supermarket gift card from IBF

as Consultation Allowance relevant to the participation in the role of Community Landowner

to the Communities Consultation Workshop held in Majuro on May 9th 2024

COMMUNITY GROUP: Kabite Weto, Delap

NAME: WIDA Johnson-Tenau

DATE OF BIRTH: 03/30/1967

ID NUMBER- SS NUMBER: 04-074340

ADDRESS: P.O. Box 604, Majuro, MH 96960

SIGNATURE WIDA Johnson-Tenau

February 2024

Date	26 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	MOCIA Youth Desk	
Names of attendees	Role of attendees	Gender of attendees
1.Mie Ishiguguro	Manager, Youth Desk	Male
Purpose of consultation:	To learn about the youth desk and what programs they are implementing. To learn about the key issues experienced by RMI youth. To share WYSER long list for feedback.	
Consultation Key Points: They recently redrafted the Youth Policy, previous one expired in 2017. The Youth Desk office is trying to There is a significant absence of career preparedness programs in high schools and colleges and more skills are needed for better youth employment. Definition of youth is age 15-24 Youth Desk has little funding and little capacity to work towards implementing the Youth policy. WYSER long list aligns with the Youth Policy.		

Date	26 FEB 2024		
Location	Virtual – Toronto and Majuro		
Name of institution/ division/ organization	NTC		
Names of attendees	Role of attendees	Gender of attendees	
1.Lenn Lenja	NTC non-resident workers specialist	Male	
Purpose of consultation:	-to learn about labor market data collection		
Consultation Key Points:			
He gets the information of jobs people are doing in RMI and gives this information to the training department to see if they can use the data.			
1 year ago he met with the labor department, to make sure that before they bring in expats, the private sector should try to find local workers			
no one is doing anything with his data.			
the main problem is that ministry of labor just contracts out jobs to foreign nationals. He doesn't think they ever consult with NTC etc. about whether there are local Marshallese who can do those jobs.			
there needs to be a stronger link between labor and NTC.			
he has written a report and stated this clearly, But no one has come back to him yet about it.			

Date	22 FEB 2024	
Location	Virtual – Toronto and Boston	
Name of institution/ division/ organization	Youth to Youth in Health	
Names of attendees	Role of attendees	Gender of attendees
1.Todd Mulroy	-former manager of pregnancy prevention project at Youth to Youth in health	-male
Purpose of consultation:	-to learn about the pregnancy prevention campaign and what learnings the project's proposed communications plan focused on pregnancy prevention could build on	
Consultation Key Points: Their media dissemination was structured more as a radio show they put out every week. project ended in 2023. Targeted communities Majuro and Ebeye not whole RMI. The whole project was		

targeted to specific areas, not national. Didn't reach rural areas
 They went into the health and science classes for middle schools and high schools. Highschool was 16-week program, middle school between 5 and 7 week program
 Got quite a bit of pushback, but then went in and ran mock sessions with parents to show what they were teaching the kids in schools and then there was a big turn around. Important to talk to communities about outcome and intent of programming.
 what worked best was just involving parents and youth. Youth leadership council and advisory groups in the targeted communities, they are a mix of parents and government and counsels and teachers.
 Have those groups meet twice a month and explain again what we are doing, and show the success.
 Program ended June 2023. No one taking over.
 TV and Marshall Islands Broadcasting service but not financially accessible for people.
 Radio and program materials that would be shared with clinics.
 There have been people producing videos and sending them out in other sectors, WUTMI, IOM, CMI.
 A lot of sectors do poster competitions, essay competitions, top 3 winners get their stuff posted. But poster production on RMI is so expensive, not done in country. In the schools they last just a couple weeks, and in community rained on or destroyed.

Date	20 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Labor	
Names of attendees	Role of attendees	Gender of attendees
1.Rachael Baack	Technical consultant, ILO, drafted the National Employment Plan (NEP) 2024	Female
Purpose of consultation:	To see if WYSER project proposed activities aligns with NEP	
Consultation Key Points: The NEP shall follow the principles stipulated in the Employment Policy Convention, 1964 (No. 122), and address selected country-specific employment challenges and tailored to the particular context of Marshall Islands WYSER is aligned with the NEP, working towards the same goals. NEP is focused on supporting employment for vulnerable groups, women and youth, increase social protections, support the informal workers to have decent work and social protections. Not having childcare in RMI is a big thing. There is limited labor market info in the RMI, its very scattered. 2021 census, World Bank and ADB have data indicators. Hosting a workshop March 15 th to present the NEP		

Date	20 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	ESSP World Bank Project	
Names of attendees	Role of attendees	Gender of attendees
1.Susan Kommwa	Project Manager ESSP	Female
2.Elmi Keju	Manager	Male
3.Walter Jinanin	Assistant Manager, NTC	Male
Purpose of consultation:	To ensure no duplication between ESSP and WYSER projects. To see where NTC might use funding support (in their career center). To see what extend NTC services marginalized youth	
Consultation Key Points: The Work Placement Program, open to all Marshallese job seekers in the Marshall Islands, is excited to announce wider coverage with recruitment happening in both Majuro and Ebeye! The eligibility criteria are designed to create opportunities for a diverse range of participants. In order to catch up the drop outs, ESSP categorize people, depending on certificates – if you don't have high school		

they pay a minimum wage. \$3. So there is no barrier in terms of entry.

NTC is doing a labor market analysis. Not under ESSP. Working with the labor office in Majuro to try to collect some data on how many expats receiving, and come up with analysis and see if there are any skills lacking. he might come up with a solution and propose to NTC to find some kind of training that would work. Lenn Lenja, NTC.

Our Employment Preparation Program (EPP) within NTC houses offices for career guidance services. While CMI, USP, and high schools have career counsellors, our recent landscape analysis of high schools revealed a crucial gap: most counsellors lack formal training in career guidance. To address this, we partnered with a consultant to provide a 2-week training program. However, we observed that many counsellors currently focus on discipline rather than career guidance. Providing a chance for a certification program can be of great help. On average how many people 100 / month. 70% male, 30% female.

While NTC already has an Employment Preparation Center with technology infrastructure (computers and internet services), its limited staffing (2 employees) restricts its potential. We propose expanding the center's functionalities to offer robust career guidance services

Date	15 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Jo Jikim	
Names of attendees	Role of attendees	Gender of attendees
1.Kathy Kiljner	Director	Female
Purpose of consultation:	-to learn about Jo Jikim and it's programming, to see whether there is alignment with what they do and WYSER project and whether they could be a recipient of project funding.	
Consultation Key Points: We are the organization engaging youth on climate change actions, through advocacy. Use the arts as one of the primary programs on climate change issues, as well as nuclear issues. Use arts based practice, repeat what they learned. Create new artwork or songs from the discussions and present to each other and community. captured what they created and fed it into the national adaption plan. Have trained youth facilitators and have led over 300 youth facilitated discussions. Climate change org. don't offer formal career counselling or job pathway info or options.		

Date	15 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Ministry of Health, Health Promotions	
Names of attendees	Role of attendees	Gender of attendees
1.Leilani Lani-Peren	manager	Female
Purpose of consultation:	-to learn about health promotions and what campaigns they have and are implementing and whether they have plans for a campaign on adolescent pregnancy prevention	
Consultation Key Points: promoting health awareness mostly regarding non-communicable diseases work with different departments within ministry of health. under our department we have three different programs i. tobacco program mainly focusing on policy, surveillance and research (students 13-15 years tobacco survey); ii. diabetes program focused on prevention measures in the community including community outreach and engagement. lii. Health education program focused on health promotions Haven't had resources to do more than radio spots and radio programs targeting the general population. never used social media in a campaign, used radio. Would be a great approach to expand their education		

program to do a media.
recently hired a media personnel for this type of purpose.
have done mass health campaigns, like health fairs. Booths and stands where people talk about the issues.

Date	15 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Office of the Chief Secretary's Office	
Names of attendees	Role of attendees	Gender of attendees
1.Richard Bruce 2.Mikela Heine	Assistant Chief's secretary Working on NEP	Male Female
Purpose of consultation:	To share WYSER long list and ensure there is no duplication. To learn what they believe are the gaps in supports and services for marginalized youth and young women.	
Consultation Key Points: Problem we face is the dependence on foreign labor. Need to provide vocational capacity training. To help youth earn the certificates to make them employable. Need more comprehensive training that becomes built into the ministries, you are trained as part of the job. People with disabilities feel marginalized. There are laws out there, but accessibility is a challenge. Flag the legislation. WYSER is aligned with government plans.		

Date	15 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	WAM	
Names of attendees	Role of attendees	Gender of attendees
1.Alson Kelen 2. 3.	Director	male
Purpose of consultation:	To learn about WAM's program offerings and where WYSER could support WAM	
Consultation Key Points: -WAM offers two types of programs: - bring people from the outer islands to learn how to build the yellow boats canoes. Learn how to sail them, take them back to the outer islands. Only guys coming in. 3 month program. Not so easy for females to do this. They don't offer a specific program for women. - Focused on youth age 16-25. They come through the program learning basic English maths with pathways into the ABE program at CMI. They go to CMI take a test if they pass they go to college, if not they go into GED program. Also help them go and get advanced training if they don't want to go back to school, like sending students to Tawaiin. Down south to Fiji to ABCD training. Or other advanced trainings in Majuro. 100% success rates of WAM trainees. Also offer Life skills training, as well as behavior counselling, mental health counselling. Have a US certified mental health counsellor in the program. 2 weeks of training, they are placed in companies or in offices, like internships offered in high school. And follow up make sure they have good attendance and gradings they deserve. 25 kids per session (6 months). Don't have a big space. Also focus on a good teacher-student ratio.		

WAM needs a school bus to help students who can't afford transportation to WAM. Cost for 1/3 of the island is more taxis. A long flat bed, with wooden chairs. Also for trucking a lot of their needs. Training program center but it burned down. but need more funding to put more training inside. The focus is training young people, no such thing as training females and males. Training centers being built will be one of the biggest training sites in the RMI – but not many young women attendees. so to take full advantage we could do a 6 month session for male and female, and one for females. Planning to open an extension on Laura part of the island. Gets lots of requests for a WAM there to provide service to marginalized youth on that side of atoll.

Date	14 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization		
Names of attendees	Role of attendees	Gender of attendees
1.Giff Johnson 2.Kainok 3.	Director of Board Finance officer	Male Female
Purpose of consultation:	-to find out more about WYSER programming, to see whether WYSER project aligns and how ADB could potentially support Youth to Youth in Health.	
Consultation Key Points: Lost all funding in 2023. Has been closed since. 2 options, close down. rent building out. Or get IPPF money and try to reinvent the organization, have a plan to bring it back to some of its roots. That meet and fit with RMI. Back to Roots is Health services -they have never offered specific job training programs, last year NTC ran an arts skills training program. Not the core goal for youth to youth in health. Building needs significant renovation, wants to improve the facility and the aesthetic quality of the place -likely has secured funding for long term commitment with International Planned Parenthood federation folks in Fiji, they run the IPPF program don't own the land, but have a good relationship with the landowners. Landowners basically donated the property to our organization. \$1 / year rent has been paying to the landowners.		

Date	14 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	MOCIA	
Names of attendees	Role of attendees	Gender of attendees
1.Rubida Alick	Chief of community development	Female
Purpose of consultation:	Second call, to find out more about specific MOCIA programs and plans.	
Consultation Key Points: the out of school program, focusing on high rates of teen pregnancy in the RMI. Youth services and MOICA are part of that. not yet implemented. Good understanding of family planning and choices for their futures. Partnership with UNFPA. Women's Forum. funded by Australia) and UN. They fund the forum. Campaign and public awareness. Focus has been on women. Bring women to Majuro each year to focus on a topic. they haven't had a focus on men. Bring up the male to sensitize them to understand their roles and behaviors. MOCIA needs capacity building of gender desk to come up with job descriptions, structure and programming abilities. They don't have much budget.		

Date	14 FEB 2024	
Location	Virtual – Toronto and Majuro	

Name of institution/ division/ organization	CMI	
Names of attendees	Role of attendees	Gender of attendees
1.Dr. Elizabeth Switaj 2.Susan Kommwo	Interim President Manager ESSP project	Female Female
Purpose of consultation:	-to learn more about CMI daycare idea details and counselling certificate idea.	
Consultation Key Points: They need to renovate a space, one of the smaller spaces on the campus. The one used to house the customary law and language commission (cllc) office. Quality assurance for Marshallese language. Work on standardized Marshallese spelling. Been applying for grants, but not yet secured one. Another possibility is they could get funding through the head start program with the new compact agreement. But don't know yet. A lot of initiatives in US to put head start early childhood education on community college campuses. Nothing nailed down yet. Would hire a director. CMI hasn't looked specifically at the fees structure yet but perhaps on a sliding scale. CMI did offer a mental health counselling certificate – people taking associates level certificate and getting into situations not prepared for. Not a career guidance certificate. There is a lot demand and need in educational institutions. Tamake resource and career center (TRACC). There is one student who staffs it, one open building. Could be more expandable. Not at the moment not receiving funds, was getting USA education. Not an existing building for guidance center, but space to put up another one. There are spaces on the periphery, a space to not have to cut across campus. Adult basic education program housed at CMI. Youth corps at CMI , less formal training, targeting out of education youth. No specific plans for TVET expansion of courses. Plans are more to expand existing courses and offer next level up. No plans to incentivize women in TVET. They do outreach for women to enter the TVET maritime program. It's been very effective. Had 3 women this year. mobile classroom – fantastic idea. NTC boot camp internship pilot expansion. This month starting to place youth. At the moment just pilot. Just an extension of the internship program. ESSP will start a work placement program. To help anyone looking for a job.		

Date	14 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	MOCIA	
Names of attendees	Role of attendees	Gender of attendees
1.Rubida Alik	Chief of community development	
Purpose of consultation:	To learn about MOCIA programs and what the needs are for RMI youth especially young women	
Consultation Key Points:		
What are the main barriers impacting women and marginalized youth access to education and good jobs?		
-youth groups are being neglected		
-there has never been a report in seven years on youth, from what was done.		
-government priorities are a barrier, not putting money into gender and youth.		
What are some programs/initiatives that MOCIA is implementing to address the barriers that youth face, particularly young women and marginalized youth, in accessing school, employment, and entrepreneurship in the RMI?		

--building a woman's forum - working on gender equality and GBV and climate change (but for adult women), empowerment and economic, women leadership.
 -building capacity in the church
 -out of school program, focusing on high rates of teen pregnancy in the RMI. Youth services and MOICA are part of that. not yet implemented. Good understanding of family planning and choices for their futures. Partnership with UNDP.
 -NOT currently implementing anything for youth or young women.
 -she is only holding a very tiny project right now, because of funding etc. not enough capacity building.
 -MOICA is very weak, don't have funds. Just enough for a printer and a few things.
 -majority of capacity building is being done on the radio because it's free. They run capacity building through radio programs. Including public awareness announcements. Government radio broadcasting service that other outer islands get to listen to.

More capacity building instead wanted around parenting. A mobile team to help the offices in the MOICA to help target and do outreach education for the community. in Majuro and beyond. Could do well as a funding idea for ADB.

Link up with MOICA – and provide a distance education component for the Family Life Education (sexual education piece). Also for the drop out students, because the education is being provided in the school.

PSS trying to align their services on no child left behind. Want to stop having push outs, something to focus on pre-9 program. Life skills academy. Next month the SSP world

Date	14 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Private ECE consultant	
Names of attendees	Role of attendees	Gender of attendees
1. Lavinla Tiko	ECE consultant hired by ESSP World Bank Project to do a landscape analysis for ECE in RMI.	Female
Purpose of consultation:	To learn about her findings	
Consultation Key Points: There is a huge need for childcare in the country. Some CSI students quite emotional talking about childcare need. Not only students but deans acknowledged child care center to be attached to the institution. Most young mothers bringing the children in to lectures, classes. Reasons: mother in law old, mother in law doesn't want to take care. Children allowed in classes. Long term goal is for the government to pay it. Need a minster of finance to send it through and President Hilda to get it funded. Strong advocates in WUTMI to advocate it in government. Landscape report is due for release in March. It will be providing guidelines to the government for how to set up regulations etc. for an ECE in RMI. It is not guidelines for how to operationalize an ECE at CMI. That would require further consultations.		

Date	13 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	CMI Job Corps program	
Names of attendees	Role of attendees	Gender of attendees
1.Tania Bukida	Deputy Director	Female
2.Romi Reisher	Training Program Manager	Female
3.Julius (SICK)	Director	
Purpose of consultation:	To learn more about jobs corps.	
Consultation Key Points: job corps is one of Ministry of Education services. Under NTC there are programs and one of them is job		

corps
Their role is to recruit students to attend job corps in Hawaii. 2 campuses that they offer recruitment to – both in Hawaii. Don't have a job corps campus in RMI. It's a program under the US.
Job corps could be pharmaceutical, hospitality, retail, nursing. Depends on the campus you choose.
Certificate level.
Then they can choose to come back to RMI to work, or continue to take other advance courses.
No incentives for women other than school awareness. But try to put girls in promotional materials.

Date	13 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Ministry of Health	
Names of attendees	Role of attendees	Gender of attendees
1.Secretary Francyne Wase	Secretary	Female
Purpose of consultation:	To learn about Ministry of Health Programs. To find out if there are any areas in MOH programming that aligns with WYSER and could benefit from ADB funding.	
Consultation Key Points: Most concerned with -mental health, family planning, immunization like HPV family planning commodities has not been an area they have been working in but recognize they have to better with condom distribution WHO has given some funding for peer training in outer islands on teen pregnancy. Have had money for 4 cohorts. But peer educators weren't continually available. Want to get them upgraded and more peer educators to keep it sustainable. But they don't have a program, stable structure. Its been an ad hoc program. But youth 2 youth was their strength in services. recently partnered with WUTMI to train women health aids, because of low pregnancy screening and prenatal care. They are putting in additional health assistants, local picks a woman. They go to a training, and get deployed to their atoll to support the health center		

Date	13 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	LSA	
Names of attendees	Role of attendees	Gender of attendees
1.Kenneth Fernando	Principal	Male
Purpose of consultation:	To find out more about setting up a youth job activity like a PEP	
Consultation Key Points: junior Paul talked about a national job placement bank – most stakeholders need to be involved. Chamber of commerce (private) and labor. create a centralized job placement center across RMI. ESSP has kicked off things. NTC has run programs specifically focused for youth. Get some high level stakeholders to help with infrastructure and planning.		

Date	13 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Office of the President	
Names of attendees	Role of attendees	Gender of attendees
1. Senator Daisy Alik-Momotaro	Parliament Member, Special envoy to the President, focused on gender.	Female
Purpose of consultation:	To learn what the priorities are for RMI government with regards to	

	gender equality and empowerment, and where ADB funding could help.
Consultation Key Points: RMI government does not make youth and gender a priority. new president is emphasizing this and created the envoy , women youth and children envoy, nuclear and environment envoy, compact envoy. MOCIA has 14 divisions. She needs someone to focus on gender youth and children and do more. Government needs to create more activities for youth, girls. Girls pregnancy in high school and they drop out. WUTMI is trying to see this but it's a lack of funding. MOCIA capacity building needs. Budget is too small. There is no money for training. Not enough budget to run the ministry , planning, training and capacity. Gave the women's center building to her to use. But it is in bad shape.	

Date	12 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Ministry of Works, Infrastructure and Utilities	
Names of attendees	Role of attendees	Gender of attendees
1.Secretary Barton	Secretary	Male
Purpose of consultation:	To learn about the ministry and see whether there are any plans for public works programs	
Consultation Key Points: “we work, we don’t have programs”. Talk to NTC or schools about creating programs. They just hire people and work. What skills are needed? Computers and IT, engineering. Mechanics, electricians, carpentry.		

Date	12 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	WUTMI	
Names of attendees	Role of attendees	Gender of attendees
1.Marie Maddison (Candida was unavailable)	Board director WUTMI	Female
Purpose of consultation:	To learn more details about specific WUTMI programs	
Consultation Key Points:		
WUTMI chapter leader's program - WUTMI has 24 chapters, only 22 active chapters at the moment. Each chapter has its own officers, each chapter is made up of clubs, each has 10 women members. Numbers are dwindling. Fewer women in the outer islands, fewer clubs. Each of the chapters have their own bylaws following the national WUTMI bylaws . President of each chapter is a member of the executive board of WUTMI. Each year they come together , review discuss and make decisions. WUTMI doesn't work specifically with young women, they just collaborate with other organizations like CMI that works with youth. There are fewer women in the neighboring islands than there used to be. Kora fund - -need to strengthen the management of the kora fund. Lost the manager. Bolster management capability. Strategic plan and activities related to promotion of entrepreneurship for women. Promoting capability of the board itself. WE economic statement in the national economic development policy needs to be strengthened. But how capable is the government to really focus on this area – women's economic empowerment? WUTMI conference in November passed the resolution seeks the approval of 1 million from the government toward the Kora fund. How likely is it that the government will give the 1 million. Want to build a center for nurturing of business development, mentoring that would receive their loans would not fall back. Make arrangement with CMI for business skills development and management. Incubation center for business development		

Date	12 FEB 2024
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Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	RMI Police	
Names of attendees	Role of attendees	Gender of attendees
1. Eric Jorban	Deputy Commissioner of Police	Male
Purpose of consultation:	To learn about the main issues they see young people in RMI facing, whether they are doing programming to address any of these issues.	
Consultation Key Points: idleness and unemployment. Drinking. Violence binge drinking. Without projects aside from sports they just go and get drunk. For young women, it is additionally prostitution. partner with as many partners as we can, limited funding, hospital and MIEP Marshall Islands epidemiology group. Provide support with them. IOM national organization of migration. Come down help fund projects. domestic, prevention. Fire preventive initiative. domestic violence awareness programs. But limited funding. If a group comes up then they might come and go with them. teach them the degree of violence that constitutes the crime, different phases of abuse etc. 98% of all arrests is for alcohol. Drunk and disorderly conduct. Disturbing the peace. Vodka. Spirits. People make their own alcohol. 12 L bottle for 5\$ Age of arrests are mostly 20s and up. 1277 males put in prison. 6 females.		

Date	12 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	World Bank ESSP project	
Names of attendees	Role of attendees	Gender of attendees
1.Susan Komwaa	Program Manager	Female
Purpose of consultation:	To learn about their daycare at CMI plans	
Consultation Key Points: what is the vision – what kind of childcare/ daycare? Is this an ECCE? ESSP is just tasked with coming up with the ECE guidelines. Just to do an assessment. To operationalize it, is responsibility of CMI. Dr. Elizabeth is waiting for the report to see details. Looking for alternative funding to set up the center.		

Date	11 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	MOCIA gender division	
Names of attendees	Role of attendees	Gender of attendees
1.Dora Heine Jekkar	Gender Division, Social Worker	Female
Purpose of consultation:	To learn more about the Gender Division and find out about their programming and where ADB funding could support skills and employment development for young women.	
Consultation Key Points:		
Don't have enough data to see what the government needs to do to help women.		
Working on the planning project for the women to work towards equality in RMI.		
Plan is to do mobile community engagement in the different atolls to see wat needs to be done.		
Require data. EPPSO collects data but its not updated. Most old data is around old census. Household surveys they do yearly.		
She disagrees with the daycare idea, for young women, they will see that there is a daycare out there and will abuse this service and not practice family planning. They will abuse it like they abuse their grandparents. Instead, work should be done to prevent the adolescent pregnancy rates from		

increasing.

Date	8 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization		
Names of attendees	Role of attendees	Gender of attendees
1.Kenneth Fernando	Principal LSA	
Purpose of consultation:	To get more details regarding LSA expansion	
Consultation Key Points: Spoke with Junior Paul about LSA expansion. Perhaps Do away with pre9 and put everyone into life skills academy. Focus less on academics and more on TVET. Idea is to have LSA focused on industrial arts. LSA is the only vocational school in the country. In 6 years the curriculum has changed 4 times. Now it's the regular secondary school curriculum. The vocational classes in LSA right now are the same. Only 14% is TVET. This percentage is way too low to be a vocational school. The needs to re-align the school and make it proper vocational. Maths and English and science in the morning. Lunch. Then afternoon session is industrial arts. Currently offering carpentry, electrical, agriculture, sewing, computing studies, handicrafts and life skills. Need more materials / workshop. Resources. Workshop equipment. PSS have now opened a position new – associate commissioner for TVET. A big step in the direction of TVET. So commissioner will be in charge. Now there is no TVET curriculum. There are guidelines and outlines for TVET curriculums in secondary schools, but they are outdated and old. They are on the PSS website. They introduced a career planning class. Invite employers to come into class and show presentations about companies. Kids are very scared to apply for jobs. Feel very intimidated about applying for jobs. Fill out application forms. How do you even ask for application. Police clearings. Social security card. How to write an email. How to dress for an interview. There are 160 students in their currently small building. Currently 40 students waiting to get LSA that was the last resort is now a first choice. So they have had to close off registration. Yesterday 4 families come in to transfer their kids. If they do away with pre-9 there will be a huge population. More females are coming in. they like the programs.		

Date	6 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	PSS	
Names of attendees	Role of attendees	Gender of attendees
1. Junior Paul	Acting Commissioner	Male
Purpose of consultation:	To learn about the barriers hindering youth's progress in school and jobs, especially marginalized youth and young women.	
Consultation Key Points: Main issues faced by youth: Lack of confidence to find substantially paid employment. High numbers of migration of skilled Marshallese going outside RMI because of lack of opportunity Teen pregnancy dropouts number of expat nationals coming in and taking jobs. Chinese mom and pop stores. So lack of opportunities for women to do this. not enough trainings for women to do entrepreneurship. What are they doing to help? -improving counselling programs in schools, but not trained in emotional and physical trauma. Still under development, conducting training for career counselling hopefully		

by fall 2024.
Initiating a career counselling program to encourage especially ladies
PSS is partnered with UNDP to initiate comprehensive sexual education – family life.
To develop a curriculum to target young girls esp. 5 th , 6 th , -8 th grade level.
4 track system – World Bank project / NTC. But PSS role is to improve literacy and numeracy programs for vocational and island skills track. Island track is the component to support push out students that remain in outer islands, working with island experts to develop livelihood skills – building, fishing, cooking, weaving. In the pipelines. 'Island Track'. In relation with 1 island 1 product idea. Will id pilot sites to id local experts for those island skills. Remain on the island.
How would you spend the money to help push outs and young women?
-for the push outs – to have better soft skills like communication and critical thinking
-national weakness in literacy and numeracy, so invest in primary school and secondary school literacy and numeracy programs.
-for young women push outs/ single moms – better opportunities for sustainable livelihoods, improve programs like sewing and skills in food preparation.
-daycare for single moms – should be at CMI, it could be used as an education center for the pre service program in childcare. With coordinating planning , an alternative place would be at MOICA. Mr. Paul also agrees to put the daycare at CMI. The issue that will need to be well thought out is the concept behind the daycare. Many families can not afford quality care for children. And for young women who want to work. A CHILD CARE SERVICE CENTRE.
Regarding life schools academy, yes in pipelines to expand life skills academy. Trying to work on a way to align it to become a definitive vocational school for students to come learn TVET. Currently no space there to expand. But trying to move to the former USP next to the educational cultural center. Move to that space. Ministry does own it

Date	1 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	Ministry of Education, Sports and Training	
Names of attendees	Role of attendees	Gender of attendees
1.Diane Peter	Scholarships office, manager	female
2.		
3.		
Purpose of consultation:	To learn about job matching and placements offered by the government	
Consultation Key Points: -target students who are most likely to come home to Majuro. -students in high school -when they come back to work, they work with Public Service Commission and give them a list of graduates, to see who they would be interested in hiring. -big challenge is that they have to wait months and months before they are hired to work. Because ministries don't have budget to hire the fresh graduates. GAPS in LABOUR Market – STEM sector – little to no women in STEM areas. They are still sticking to traditional roles. -ITC jobs -lacking in a lot of labor areas, no certified Marshallese accountants. Most are foreigners who come. Need more teachers (BA program now at CMI). Need more students in IT, communications area. HR. a lot of the older generation who are in these areas aren't trained. Need capacity building. -mechanics , engineers needed. Most are from outside. Airlines pilots only 4 Marshallese pilots currently. If you had 5 million dollars? -increase the scholarship budget -contribute to different vocational programs like NTC -help with the hot lunch programs, PSS has a big challenge, no vendors. Or funding. -contribute to hospital.		

Date	6 FEB 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	PSS	
Names of attendees	Role of attendees	Gender of attendees
1.Sandy Konelios 2. 3.	Associate Commissioner HR and administration	Female
Purpose of consultation:	Second consult because first call got cut off . to learn more about what RMI needs for youth particularly young women in regards to jobs and skills	
Consultation Key Points: Need counsellors and counselling certificate, dormitory space. Future job market looks like -automotive repairs, lots of cars in Majuro. You put your car in the garage and it comes out with more problems.- so many kinds of cars. Automotive shop – experts and the shop. Solar, internet repair, computer repair. Air conditioner repair. Cyber security need a review of the curriculum k-12		

January 2024

Date	31 JAN 2024	
Location	Virtual – Toronto and Majuro	
Name of institution/ division/ organization	PSS	
Names of attendees	Role of attendees	Gender of attendees
1.Sandy Konelios	Associate Commissioner	Female
2. Hannah Lafita	AC Primary Education	Female
3.Asena Ketedromo	Senior Specialist Secondary	Female
4. Senator Daisy Alik-Momotaro	Parliament Member	Female
5. Dora Heine Jekkar	MOCIA Social Worker	Female
Purpose of consultation:	Learn about the key barriers that youth face, especially young women and marginalized youth. Learn about some of the programs and initiatives the the ministry is implementing to address these barriers.	
Consultation Key Points:		
1. Family life education now starting in the school. ‘moral side of parenting’ parenting for young couples is an area of need. Like the WUTMI project for parents. Senators are asking for the program to expand to outer communities. -Family life is about teaching good decision making.		
-Training of principals of schools to take ownership. Plan to spread to all schools in RMI 2026. 81 elementary schools.		
-AWARENESS CAMPAIGN – YES. Through technology.		
2. World Bank TVET project . for outer islands to learn skills. CMI trainers and local experts going to outer islands. How to fish, do copra, these are the livelihoods. Entrepreneurship in the plan. And to loan money to the young women.		
WUTMI – bring 20 girls from high school to have a half day forum. Mingle private and public high schools.		

Smokeless stoves

Voting, encourage women to vote

Rates of school completion have improved significantly in the past ten years for females. They are now equal or surpass rates of school completion for males. What programs or interventions have helped improve female access to primary and secondary schooling? What about these interventions that made them so successful? (Offering incentives? gender-norm change? communication with parents? Seeing female success stories).
 -outreach with young girls, high school girls to talk about how a girl can be self-sufficient.
 -travel to outer islands and community support .send members to neighboring islands to raise awareness and share information.

December 2023

Date	5 DEC 2023	
Location	Majuro, RMI NTC Offices	
Name of institution/ division/ organization	World Bank ESSP	
Names of attendees	Role of attendees	Gender of attendees
1.Susan Kommwa	Project Manager	Female
2. Elmi	Coordinator Ebae	Male
3.Rahim Satof	Monitoring and Evaluations	Male
4.John	Coordinator	Male
Purpose of consultation:	To learn about ESSP project activities and plans for implementation to make sure there is no overlap with WYSER.	
Consultation Key Points: There are 4 components - improving access to quality foundational and island schools in secondary schools. Component 1 - improving foundational math and English skills for students in public and education, improving vocational and island skills, improving access like dorm construction. Component 2 focuses on same things but for TVET students and post school. Component 3 about institutional building, supporting NTC and PSS in building their capacity as institutions. A part is to give grant to NTC to implement placement programs like new grads and job seekers. Internship like work placements but longer. People with BA's get 3 times more money in comparison. Component 4 project management, admin of the whole project. Focus on secondary and post school training. They have done a skills assessment report, and the high need areas they list are carpentry, IT, mechanic and automotive. What isn't included is livelihood skills handicrafts, sewing as a way to earn money. What is being done for women etc. who aren't in school? Currently not focused on youth not in school. They don't have entrepreneurship training as part of their project. NTC director, part of their strategic plan to have entrepreneurship training to tie a skill to be entrepreneurship. This is for outer islands, because can't employ them all here. ILO start and improve your business module. 40 hour module for someone who has no idea about business to get a start. in terms of offering child care center, they have someone developing the guidelines for the childcare but they didn't include implementing a child care center into their design		

Date	5 DEC 2023	
Location	Majuro, RMI, ADB Office	
Name of institution/ division/ organization	WUTMI	
Names of attendees	Role of attendees	Gender of attendees
1.Candiea	Acting Director, program coordinator support	Female
2.Dania Nook	services	Female
3.	Assistant coordinator and counsellor.	
Purpose of consultation:	To learn about WUTMI program and activities. To learn where the gaps are.	
Consultation Key Points: WUTMI projects include: i. parents as teachers PATS. 20 staff, each have 15 families where they teach them parenting skills. Every month they have house visit and work with parents to teach them how to parent. According to the age of the child. Start with prenatal care until age 4. Curriculum is from the USA. and staff were sent to USA for training. ii. 'place of life' program it's a support service for women and girls experiencing violence, age 14+. Started sept 2016. They provide counselling face to face or telephone, temporary safe accommodation, financial assistance. Partner with first responders on the island. Micronesia services and ministry of health. And WAM. iii. women champions recruited from the outer islands into the 'place of life' program. To help them easily reach out to women in the outer islands, they are just a referral to women experiencing violence. iv. cancer program. Partnering with ministry of health. WUTMI does the education in community and every Thursday they offer screening. Pap smear and mammogram. v. karae fund - small loan project for women to start a small business. vi. voting education - awareness for voting before election. viii . WUTMI projects in neighboring islands have their own projects, mostly gardening etc. installing solar etc. a few years ago project sent women to India to complete course in solar so nowt they can install solar in community. schools don't provide enough for adolescent girls who get pregnant to help them return to school. WUTMI needs a building that is accessible to everyone. Accessible for disabled people and older adults. We need an office on the ground level, not the 2nd floor level. Need an office for clients to have a safe space for 2 nights stay. A safe house for secure stay. They have a short term, but if they had building there that offered safety for the women. They rent it. It's very small and above a supermarket, not private. There is no outside door, have to go into supermarket and go up and pass 2 projects to get into their offices. DFAT through pacific women's league, World Bank funders. Usually use conference rooms MIR rooms or in the public service commission.		

Date	5 DEC 2023	
Location	Majuro, RMI, Youth to Youth in health Office	
Name of institution/ division/ organization	Youth to Youth in Health	

Names of attendees	Role of attendees	Gender of attendees
1.Kainok Joseph	Finance Officer	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: -Big problems effecting young women: i. our culture we don't talk about sex in the household. She can't speak to her daughter about family planning. That's why we face a lot of teen pregnancy issues because we don't speak about it. That's why a lot of drop out from young girls, because when they get pregnant, the private schools they kick them out. What about a school for pregnant girls??? ii. lack of knowledge about family planning. iii. teens are afraid to go to youth to youth to get family planning because they are afraid their family will find out. That's why they open the clinic after hours. iv. some girls know that if they had babies later in life they could finish school. [check whether youth pregnancy has reduced in recent years] How to reduce teenage pregnancy in Marshall islands? More awareness. The curriculum at schools. Five targeted schools have the curriculum running currently. They offer free contraception and condoms. Yes should change the social norm around talking about sex and family planning in the family. The problem is from household to household. The problem is the culture here. Can't openly talk. Trying to ignore the issue here. How to change the social norm? More in community and school awareness. Do more public awareness and outreach. In families and for mom and dad. More workshop with parents. Last year they did a family retreat, gathered moms and dads together with their children to talk about teen pregnancy. Child retreat, 1 day. Was big and a good success. Lots of parents and children showed up. Stepfather and rape and pregnancy as a result is very common. Often the family will take care of the baby. If she's still young she can go back to elementary school. But its very hard because schools don't accept young mothers		

Date	5 DEC 2023	
Location	Majuro, RMI at WAM	
Name of institution/ division/ organization	WAM	
Names of attendees	Role of attendees	Gender of attendees
1. Binton Daniel	Master Canoe Builder	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: offer skills training and education and do internships in the private sector. There are pathways that refer them to the Adult Basic Education (ABE) high school equivalency program. That is then the pathway to college. WAM is for youth who are drop outs and don't have a plan to go back to school. Bring them here rather than them going onto the streets. -Work with boys and girls		

How do you help them find jobs? There is a month programming in the course on job training. There are 2 week placements in the company. Interns. MWC water company, business company, public works. And most stay on in the company following the internship. They offer the ABE so that is why they can get jobs.

If you had more funding what would you do? We would do more training? We would bring in more and more young people. Goal is not to leave anyone behind. Not everyone wants to go to the academic school, we have different life. TVET is also considered academic.

Date	5 DEC 2023	
Location	Majuro, RMI, ADB Offices	
Name of institution/ division/ organization	MOCIA	
Names of attendees	Role of attendees	Gender of attendees
1.Dora Heine Jekkar 2. 3.	Manager for Gender in Development Division MOCIA	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	

Consultation Key Points:

reviews the policy's based on gender equality act to promote gender

She's new to the office, there were no staff in this office.

Gender mainstream policy had expired, so are working with ESSP to go through policy and address what is not being done within the policy.

Next year they are rolling out a communications project. Advocating for status and empowerment of women. Focuses on women and men and families. Going to go and do community engagement in the neighboring islands. 19 atolls.

What are some of the barriers for women to succeed in terms of education and employment (GBV, early pregnancy, lack of family support): teenage pregnancy , the baby daddy continues his education the woman stays home; parents decide that young pregnant women should stay home and do the housework; very hard for young women with babies esp. in outer islands to then re-enter school. Can't come to Majuro to go to school no family here. Hard to find child care in Majuro. No high schools in some of the rural areas.

Gap for women in education, very important for the government to address. Reason people migrate for education, work and health. Its not accessible for young mothers, so many are migrating to USA.

Young women and girls pregnant by family member or community member, feel ashamed. Scared. Parents don't want to take care of the child. So they can't continue schools. Blames the young woman not the man or the family member who raped her. Most of the time it's rape. Schools don't support young mothers.

Contraception not being used , young people are shy don't want to talk about it, its my private things. Some of the churches talk against contraception.

What about a school to help young mothers? And pregnant women - yes that would be a very helpful solution.

At CMI people pay babysitters to help young mothers to continue in her studies. She said in japan she saw a daycare program to help young women finish high school

Date	7 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/	Chamber of Commerce	

organization		
Names of attendees	Role of attendees	Gender of attendees
1. Jeff Tarkwon	VP Chamber of Commerce	Male
2.Eunice Borero	Chamber grant and operations manager	Female
3.Sharlynn Broegu and Joe Uluitanukitu	Chamber members, owner solar renewable energy company	Female Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: There is no clear pathway for marginalized youth especially people with disabilities, to get into a career. Teachers do not have the skills to teach them. Do not have a lot of educators to focus on disabilities. Child care is a big gap. After school we can't do anything else because we are given childcare duties. Can't engage in entrepreneurship activities. But they want to be productive at night, so weave. But don't have access to light at night Not enough training programs. no hospitality school or course that would cater on tourism. no electrician course. There have been a few courses just a few weeks here and there. But no sustainability Lack of marketing of what is currently available. LSA Life skills academy - selling models and carpentry work, but people don't know they exist. Not sufficient awareness to youth about what the programs are available to them. Need to change attitudes about TVET and blue collar careers, people don't want to work in offices etc. skills not as high regarded. Salaries are too low, so people are going to USA. hospital in US is better. More opportunity in US. camping, childcare. Better schools. So people moving over. We want to have them gain skills abroad and then pathway to come back, with those skills. More solar technician. Or business management or e-commerce. Some jobs to pull you back into marshal islands. But many youth leave and have a different life in the US and don't think there are opportunities back here. Brain drain because there are no bonds here. If you go to USA funded by RMI government, there should be bonds to serve a few minimum years here to give back to the islands. Not employing enough locals, employing more foreigners. Despite the code saying you have to hire more locals and then justifications for why employing foreigners and what special skills they have. Chamber does not have the capacity to do more. Can not offer the public anything at the moment. Chamber doesn't have the money to run trainings, and bring people with capacity to run trainings in. What future sectors are projected to grow? The ocean and the sun. renewable energies. Solar. World bank 40+ million investment on grid tie system for building solar infrastructure. Currently only 1 person local male to transitioning the energy to solar. Already told the world that by 2050 100% renewable. But they aren't ready in terms of skills. From traditional stand alone solar, and then the grid solar system. So need more qualifications in solar. Solar technicians, construction people and specialists to raise the ground levels. Where are we going to get these skills? We should be training them now. Any skills needed for climate change. Mitigation plans for climate change. Agriculture systems. Specialists to elevate the ground. Flood risks. ecommerce. Selling handicrafts to		

Arkansas. Digitalization/ Sending money. It's so hard to send money and receive money without the middle person. Digitalizing birth certificates and documents etc. Tourism and hospitality. Don't have proper training. Welcoming. Eco tourism. There is only one course at CMI. Marine Health. Mechanics, mostly outsiders. Small engines. All outsiders are the specialists. No one in outer islands doing repairs. Motor bikes and generators sitting in outer islands, no one able to repair them. Is there room for women to learn these skills? Yes to be the brains and owner of the shop, and build the business. Cultural norms women can't climb high to install etc. because of cultural norms. Social and psychological side supports needed - for stress in house, poverty, GBV, losing land, stress due to women earning more money with handicrafts than fishing.

Date	7 DEC 2023	
Location	Majuro, RMI, ADB Office	
Name of institution/ division/ organization	N/A (focus group young women)	
Names of attendees	Role of attendees	Gender of attendees
1.Laurina	Age 29, mother, two children, at CMI	Female
2.Joy	Age 23, mother, 1 child, at CMI	Female
3.Kimberly	Age 24, mother 4 children, not working	Female
4. Sandy	Age 27, mother 4 children, not working, no partner	Female
Purpose of consultation:	To learn about the lives of young women in RMI, where the gaps are in terms of supports and what the potential might be for ADB funding.	
Consultation Key Points: After had given birth, took birth control. Two didn't. Boyfriend won't let her. Easy to find birth control. Allergies to the birth control. Partner does use condom. The two who are in school use birth control. School nurse sends out emails to students to inform them. Reminder every 3 months to take their birth control. MOH could do a massive text rather than family planning available at youth to youth. Nurse bringing contraception to community would make it easier. Tey want to start business but don't know how. Kimberly - can bake, that's her talent. Sell local food. Peer to peer program - to offer guidance, knowledge, strategy. Yes very useful. Kora fund - many barriers to apply for loan, you need to get a guarantor to approve loan. Need to give a chequ stub. How can we give a cheque stub if we don't work. Too many barriers. Need community daycares, not just at CMI.		

Date	7 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/ organization	Kora Fund	
Names of attendees	Role of attendees	Gender of attendees
1.Ramona Levi-Strauss	Chair	Female
2.President Hilda	Board Member	Female
3.Jennifer Holly	Board Member	Female

4. Marie Maddison	Vice President, Founder WUTMI	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Origins of the fund/ need for fund? They are all members of WUTMI. Working to improve livelihoods for women and families. Over the yeras became apparent a big issue was lack of economic support and resources. And to make decisions for themselves and their families. Many women impacted by domestic violence and not able to get out dpendent on husbands salaries. Idea of economic empowerment loan fo start own business. Approached idea with president of Tawain (a woman). 1 million dollar loan and use the interest to give loans. Are trying to raise additional funds to grow the funds. Not enough. Need to look for more ways to train and new opportunities. Like technology needs growing for women entrepreneurs. Most women do handicrafts. Handicraft needs development like packaging. Networks and connections being established.		

Date	7 DEC 2023	
Location	Majuro, RMI, CMI President's Office	
Name of institution/ division/ organization	CMI	
Names of attendees	Role of attendees	Gender of attendees
1.Dr. Elizabeth Sitaj	Interim President	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Over all enrolment 55% women Technical education fields are almost exclusively male, maritime courses almost all male. But trying to make progress. 5 are women. Nursing, elementary ed are female dominated. Pregnant women and new mothers come to college. No breastfeeding facilities. If someone has to stop in middle of semester, they get an incomplete grade, and then they get another semester to complete requirements. PEL grant makes it pretty much free for anyone to come to CMI. PEL grant is 6 years full time funding. Somethings are worked into the fee that PEL will cover like books is covered and worked into PEL grant, and lef over money can use to pay for taxis etc. But what happens is the money goes right into their bank account, and then they have no money to pay lunch or pay for taxi. PEL is a grant not a loan. PEL is a federal. There is an entrance test, not an admissions test, but a placement test to see if people have to do a developmental work first. If people are wanting to come to college but not applying, there is belief that they can't do it. Belief within PWD that they aren't allowed to come to CMI. especially deaf high school students. Trying to work on bringing back IT associates degree and certificate programs. Lots of demand in the health care field, want to start offering a BA in nursing, thats the level of skills needed at the hospitalotu to reach out to the different islands. They have three campuses in neighbouring islands. Then have sites that do adult basic education and informal training programs. Online programs. But lots of access challenge. Don't have the remote delivery set up. Currently they join classes through zoom. Offering the ABE program. Trying to improve TVET training		

In demand areas - automotive and areas of construction
 there is an issue of stigma around TVET and skills training. Trying to emphasize that the graduates work right into jobs, you can't do that with an associate degree.
 A lot of graduates migrate and find they get better jobs.
 Employers report gaps mostly in soft skills, cultural skills, time management etc.

Date	7 DEC 2023	
Location	Majuro, RMI, ADB Offices	
Name of institution/ division/ organization	N/A Focus Group Young Men	
Names of attendees	Role of attendees	Gender of attendees
1.Niki	Just finished ABE	Male
2. Pari	Just finished highschool	Male
3.Coiny	At CMI	Male
4. John	At CMI	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	

Consultation Key Points:
 Challenges are finding jobs, scared because they are young they are scared to approach the workplace. There is no place that the youth can go to apply and get assistance. The way to apply here is to go to the workplace directly. But they are scared.
 Way of living getting harder, expensive and even harder when you don't have a job as a young person.
 Being a part of church and community is good for youth. Youth for Christ youth group helps bring them out of the shell and build confidence.
 What could the government do to keep youth staying in RMI? it's a cash economy, life expensive, improve health care; improve education; CMI he applied for a work study, but the amount that they give wasn't enough to provide the needs of the family; families have needs, he wants to work, but he can't get a job yet.

Date	7 DEC 2023	
Location	Majuro, RMI, MIR Hotel	
Name of institution/ division/ organization	ESSP	
Names of attendees	Role of attendees	Gender of attendees
1.Sakeasi John Mar	ESSP manager (and former NTC training manager)	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	

Consultation Key Points:
 NTC Mission: To equip residents of the Marshall Islands with the skills and attributes needed for gainful employment and to contribute to a more vibrant economy that is less dependent on foreign workers.
 Have employment prep program, training, internship program
 But don't have these trainings available locally. Construction skills, welding and fabrication, electrical, according to labor data and air craft repair. These are hard skills. Then the soft

skills are accounting and business admin to work for government, need them to work and go into private sector.

Have an internship department, 90% go for public sector. He doesn't see people going into private sector. Why? Because private might be unfamiliar and faster pace. While public is more familiar, have families working there.

That is a gap that needs to be filled, the construction company has a million dollars contract from the government. But hiring foreigners not unskilled youth.

Job descriptions just don't match the salary. The work doesn't match what is being paid. People working multiple jobs. Foreign workers get paid more here than in home countries. So more Filipinos coming here with \$5 / hour and they live in accommodation provided for them and other benefits. Some incentives. Including local transport. No salary growth.

ESSP are trying to improve access to skills for youth so that they will be able to work, rather than hiring foreigners.

TVET at the highschool level is being missed. It wasn't raised in the ESSP planning stage. He's advocating to have TVET in the secondary school level. PREL is advocating for TVET in secondary school, but only through an apprenticeship program which puts the responsibility of training and teaching and equipment to the employer. His argument is who is going to teach the youth? It's too young. At that age it should be in the classroom.

Marshall Island high school or Laura highschool, these are the public highschools in Majuro. Need curriculum, equipment, and qualified TVET teachers.

Scholarships for trainers to go and learn BA in automotive and joinery and carpentry and then they can come back.

Date	7 DEC 2023	
Location	Majuro, RMI, ADB Office	
Name of institution/ division/ organization	Marshall Islands Services Corp (MISCO)	
Names of attendees	Role of attendees	Gender of attendees
1.Kakum Paul 2. 3.	Operations Manager	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Bring young girls into the shop to learn how to do handicrafts. Want to teach Marshalese girls to learn how to sew dress. Its not a big business here, no sewing machines. No one to train young women. Only one place is doing it, but not local. They are Filipino. Very expensive \$60 for one dress. Small mom and pop stores, chinese owned. Taxis are owned by chinese, drivers are local. Laundromat are all chinese owned. Daycare because even if it is your relative you have to pay them. Especially with extended families moving to US so no one to take care of kids. People juggling their time to take care of the kids. Pay \$50 / week for babysitter full day. Give them food for dinner small needs. Some parents want to put their kids in school at early ages, they have no choice no one is looking after the kids. So they are putting them in coop for 1,000 per year. For a 3 year old child to go and sleep. Locate the daycares close to the centre so its accessible.		

Date	11 DEC 2023	
Location	Majuro, RMI, CMI	
Name of institution/ division/ organization	Jaki Ed, Weaving entrepreneurship program CMI	
Names of attendees	Role of attendees	Gender of attendees
1. Malest Bilinmoan	Manager	Female
2.Susan	Weaver in residence	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Susan was brought in with the idea to teach some classes to teach the skills of weaving to build up Marshalese studies course. Part of curriculum of Marshalese studies. Has not started yet, they have language and social issues only in Marshalese studies. This has not been added yet. During weaving is when stories are shared. Casual story telling on any kind of topic. Counselling department has initiative to do story telling sessions for female students, and they invite a guest speaker to sit with the girls, alongside susan. bring in guest speakers , such as nurse who talked about health issues, an older lady who is a traditional medicine practitioner to speak about health, Malest came and talked about post-partum practices in RMI. Close to 10 women attended, sometimes more. Guest speaker was a Marshalese Culture instructor. She was talking about roles of women, women practices. Usually they ask the girls, what do they want to talk about. Just to get women to talk and share. Domesitc abuse. Struggles they go through, relationships. Culture and role as women in RMI. They aren't bringing in any other organizations, NGOs. don't want to bring in outsiders because they are sensitive topics. The bookstore woman is like the bubu / grandmother on campus. Susan always sitting here. they talk story with her.		

Date	11 DEC 2023	
Location	Majuro, RMI, CMI	
Name of institution/ division/ organization	Counselling Department, CMI	
Names of attendees	Role of attendees	Gender of attendees
1.Oyinade Ogunmokun 2.Curriitha	Director Counselor	Female Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: They have a proposal with the president to start offering counselling certificate. Need for counseling in RMI. A few years ago they had a certificate program but it got cancelled. Current counsellors are not trained, the call themselves counsellors or student advocates. No formal training yet. Director of the service is a psychologist, and they are having conversations about resourcing and training the staff They have 4 advocates, only one is trained counsellor.		

Untrained counsellor graduated secondary education in maths and science, and she just applied with a BA and that was sufficient.

Date	11 DEC 2023	
Location	Majuro, RMI, ADB Office	
Name of institution/ division/ organization	PSS	
Names of attendees	Role of attendees	Gender of attendees
1.Junior Paul	Acting Associate Commissioner	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Barriers to young girls continuing / finishing secondary school? -teenage pregnancy -skipping school, drop out because family issues, social issues. -20 absences without communications leads to expulsion -lack of parental guidance -lack of transport, it's a policy that every child should have access to transport to school. But it isn't. So they have to pay 1\$ to school and back. Barriers to girls joining TVET -cultural norm that TVET is seen as men and not for women. -women not excited by construction or automotive -do offer practicum programs at highschool level, 8 week practicum on TVET programs. Girls participate in the IT, secretary, bookkeeping, accounting. The most attractive one is nursing academy. Food preparation. Boys and girls are both interested in teaching academy. Trying to develop a counselling system for girls. To train counsellors to deal with psychosocial problems. Counselling needed in secondary schools to improve performance in school, attendance etc. Policy on teenage pregnancy? They don't force them out. But they only have 10 days maternity leave. No accommodations for breastfeeding. If they have babies they have to leave them at home. If they are over 18 years old they can't reenter secondary school but have to take the ABE.		

Date	11 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/ organization	Ministry of Immigration and Labor	
Names of attendees	Role of attendees	Gender of attendees
1.Jo Travis 2. 3.	Director	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	

Consultation Key Points:

Main mandate to look after non resident workers in the private sector.

There is no law to protect Marshalese in the private sector.

There is law to protect them in public sector.

Just ILO minimum protection act. Bill is currently with AG for review. For protecting women, children and disability and all Marshalese. To comply with ILO standards. To switch from non resident workers to all workers in RMI. now switching to comply with ILO and to raise the standard to protect all the workers.

Two laws passed recently workman compensation act and collective bargaining act.

There are currently more laws that protect workers in private sector, non marshallese. But few protections for public sector. For example: wages.

Government want to try to have locals working in both public and private to minimize foreign workers.

Date	11 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/ organization	Multi-Sector Early Childhood Development Project MOCIA Child Rights Office	
Names of attendees	Role of attendees	Gender of attendees
1. Dr. Pablo Stansbery	Project Manager	Male
2. Joy Kawakami	Acting Director Child Rights	Female
3.	Office, MOCIA	
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	

Consultation Key Points:

2022 the implementation started. To register you have to have a birth certificate of mother and child, social security number, ID, yellow card for hospital number. 15-20 min interview, questions are about economic understanding of their way of living. Ex. do you have a fridge. Or do you own a washing machine or dryer. Send to bank of marshals, have an agreement to ensure the beneficiaries get a debit card and can have cash transfer deposits in.

One child 75\$, 2 children is 90, 3 children is 105 twice a month. Under age 5.

Get their money if they go to prenatal care, and kid check ups, and kid has to enroll and attend 75% of the time. Suite of conditionalities.

Have just hired two compliance officers to meet with schools to get attendance sheets. Then have a focal person at the hospital to help with getting data.

To improve access to reproductive health, natal and child health and preschool classrooms.

No requirements on what they spend the money on. But there are guidelines and promotions.

Don't have a lot of young mothers. Average age of mother is 30

Don't offer workshops or trainings, but offer cash transfers.

Age 3 and under is a gap - parent as teachers program its only once a month. piloting this preschool program. in this in 3 schools that have allocated the classrooms Rita, Laura schools. A classroom and teacher. 4 year olds. Because you enter at age of 5. World bank is paying for this

Date	11 DEC 2023	
Location	Majuro, RMI, LSA	
Name of institution/ division/ organization	LSA	

Names of attendees	Role of attendees	Gender of attendees
1.Kenneth Fernando	Principal LSA	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Kids who came to LSA are the ones who failed highschool entrance test. This school neglected, all directors could have done more. But kids are so talented with their skills. These kids don't have money to come to school, taxi fares. He turns to social media, has 20,000 reach every month 11 countries. All the projects. Showcases the inventions, coconut grater with traditional pandanus pulper. Inquiry to ship them to Fiji and to US. this energizes the students. Grade 9 to grade 12 Receive highschool diploma LSA doesn't have records of what happens to grads afterwards CMI has summer boot camp and apprenticeship program, and they forward the kids there. They also have some students who to college for academic degrees - business and liberal arts. Other highschools have the pre 9 program, which is a bridging program. When every student takes the 8th grade test, they get the kids who fail and they distribute them to different highschols. The Marshall Islands Standardized Assessment test, only english, maths and science and social studies. Nothing relation to vocational. The kids who come to LSA its just by chance, but now kids are registering here. Their workshops are just classrooms They are building a lunch room, students eating lunch on the street. PSS and Minsiter of Eduacation Wilbur are looking is looking for new locations, they need more space. These kids are very poor kids, dont have breakfast, so principal buys them breakfast. Some don't have shoes to come to school. One kid was absent for 4 days because he didnt have shoes. Principal bought him a pair of shoes and he went back to school.		

Date	11 DEC 2023	
Location	Majuro, RMI, MIR	
Name of institution/ division/ organization	WUTMI and Kora Fund	
Names of attendees	Role of attendees	Gender of attendees
1.President Hilda	Founder, WUTMI, Board Kora Fund	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: WUTI is limited in its reach, hasn't been possible to talk about a crisis centre. Put women in hotels, or families volunteer to help support them for a short period of time. So they have the ability to call in and have counsellors talk to them and try to problem solve, get them tickets to go to islands to families and away from partners. Assistance isn't consistent because of limited resources. Need a safe space that families can go to. WUTMI partners with Kora fund to give trainings, and OCIT training component in that office. Need a champion for gender issues in parliament. No longer have a champion in government		

for gender. Past 4 years might not be that role anymore.

Date	11 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/ organization	USP	
Names of attendees	Role of attendees	Gender of attendees
1.Setoki Qalubau	Acting Campus Coordinator	Male
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: There are a lot of jobs here in RMI, but not enough higher end graduates coming out. Esp specific areas here. Lots of expats doing the qualified work here. But train for specific jobs, like bachelor of education, the market is there for more specified trainings math teacher etc. you need a bachelor in education, majoring in maths to teach maths is the standard they are hoping to achieve. Employment opportunities are there - ex: ADB looking for national experts, but there aren't the people with for example the bachelors degree that is needed. Must start to at the lower level. You need teachers to have education degree and the topic focus as well. PSS doesn't do that. Lots of talk around professional development . 10 year program in place to get the trained teachers in the secondary school classrooms. 70-80% of teachers will be out of jobs because of the lack of specificity. Maybe dont have political will to go down that path. ECE program running ,certificate in early childhood education and diploma in ECE . they brought in an expert for 2 or 3 years, but ADB have taken her now to Touque. Based on need bring in someone. If need is there could bring it back. Most are teaching in kindergardens in RMI. Most completed the certificate program but not the degree program. 8 courses. 2 x 300 level courses. For diploma level doesn't need 300 level completion. Its under review. They are teaching age 4 to grade 3. K4-k3 No training for current training at USP on 18 months. They have for k1, k2, k3, k4. No qualified teachers to teach under age 3 n RMI.		

Date	11 DEC 2023	
Location	Majuro, RMI, CMI	
Name of institution/ division/ organization	CMI	
Names of attendees	Role of attendees	Gender of attendees
1.Minitha Note	Peer to Peer Program, CMI	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Goals of Peer to Peer was to reduce substance abuse Skits, radio program, radio spot. Inspirational quotes for the youth in the community. Visited highschoools. Started with 10.000 \$ and then awarded and 40.000\$		

Six youth staff paid, many volunteers. Chose CMI students chosen, role models. Became peer to peer part time staff, because they are students.
The main focus was substance abuse and healthy lifestyle.
Ran workshops on youth issues - teen pregnancy, alcohol abuse, family relationships

Date	12 DEC 2023	
Location	Majuro, RMI, Café	
Name of institution/ division/ organization	Kora Fund	
Names of attendees	Role of attendees	Gender of attendees
1.Marie Maddison	Founder	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: Early childhood development education program, to work with parents of kids 0-5. Focus has been on school preparedness, but there is a curriculum parents as teachers, developed in US Missouri. Brain development is the focus. To give especially young couples, young mothers information on early childhood brain development. World Bank cash transfer people work with WUTMI. Domestic violence program. WAVE women against violence through education. need women economic empowerment, so have put it into the national economic policy. A committee has been established under portfolio of natural resource and commerce, with OCIT. the person chairing the committee is staff of OCIT. involved with small business development training. WE committee, oversee all the programs involved in economic development for women Kora fund which is targeting women's economic development, National resource and commerce / OCIT, CMI have a certificate on business skills development. Plan is to have a well coordinated nurturing business incubation program. Part of the vision of the one stop shop. Kora fund is set up as NGO so it's not under government jurisdiction. Outside of political interference realm.		

Date	13 DEC 2023	
Location	Majuro, RMI Jably Village	
Name of institution/ division/ organization	N/A In-Community Consultation	
Names of attendees	Role of attendees	Gender of attendees
1.Susana Debrum and 4 year old twins (husband is Mason)		Female
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points: hard to have chid so young. Needs money for diapers etc. so that's why the grandmother took the child. She was living with the uncle. Her mom was in states so she lived with her uncle. Her mom came back when she had a baby. And then took baby to the US. Didn't think of going back to school. She's never worked. Really wants to apply for job but very hard with disabled husband and kids. Yes she knows to go to the Chinese store to work not		

too hard. But you do need a lot of papers, ID very hard to get the papers. Hard to hire non qualified schooled people. So end up in Chinese store. Doesn't know how to sew or handicraft or start own business. Now onto her 3rd husband. Has twins with him.

Date	13 DEC 2023	
Location	Majuro, RMI Jably Village	
Name of institution/ division/ organization	N/A In-Community Consultation	
Names of attendees	Role of attendees	Gender of attendees
1.Madelien Debrum (husband is Clary)		Female
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points:		
Born and raised in Majuro, but living here in hubands land and house. Husband built house. Husband's family that owns the land. Was 20 when had first child with first partner, had 2 kids with him didn't marry him. She didn't know that intercourse led to pregnancy. She did live with him, then had a second child. Relationship ended because the husband met another woman. Left her with the two children. This was on a neighbouring island. She finished at 8 th grade. Didn't take the grade 9 entrance test because her parents got divorced. She was feeling low. She didn't want to go back to school. After just had babies. Still learning how to sew. Really likes sewing. Heard about Kora fund through the radio but hasn't applied yet. Doesn't know, afraid if it doesn't work.		

Date	13 DEC 2023	
Location	Majuro, RMI, Jably Village	
Name of institution/ division/ organization	N/A In-Community Consultation	
Names of attendees	Role of attendees	Gender of attendees
1.Alap Iroj	Chief of village	Female
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points:		
Alap High chief, got that title from her mother.		
She is the land owner. Takes care of families and the land.		
Woman is still the main power. but lots of people ignore her, and don't tell her, local government make decisions		
Youth have no sense of direction, leads to drinking and pregnancy.		
People don't have money to support their child to go to school. Because not educated, generation. Whatever they are not educated on they passed it on.		
Jobs here are limited, if you have a college degree then you will get a job.		
Families aren't strict.thats a big problem.		
She implemented no drinking policy in her village. Also a no foreigners no Chinese in her village. Wants only American. Because the land is only for the families of the village		
Financial literacy, mismanagement of money a big thing here.		

Date	13 DEC 2023	
Location	Majuro, RMI, Jably Village	
Name of institution/ division/	N/A In-Community Consultation	

organization		
Names of attendees	Role of attendees	Gender of attendees
1.Ermi	Age 22, has 1 child. At CMI. Lives with husband.	Female
Carmalinda	Age 30. Stopped school at grade 9. 2 children. Doesn't work. No husband. Lives in uncle's house	Female
Katlina	Age 36, 3 children. Stopped school at grade 10. Lives with uncle and his wife.	Female
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points: -hard to find a job for the mama -because didn't finish school and end up pregnant. -can not afford babysitter to look after kids, to enable them to find a job. -husband and wife fight about money.		

Date	13 DEC 2023	
Location	Majuro, RMI	
Name of institution/ division/ organization	Ministry of Health, Program Manager Family Planning Center	
Names of attendees	Role of attendees	Gender of attendees
1.Caroline Jibas	Manager	Female
Purpose of consultation:	To learn about the organization and the activities they offer. To find out where the gaps are and what the potential might be for ADB funding.	
Consultation Key Points: For years we have been having problems with teen pregnancy. People not coming to services, Have condoms, implants, injectable. Pills Giving out for free. Donated by UNFPA (UN population fund). Most common is injectable and implant In a month 200, sometimes 150 people come to the clinic. It fluctuates. Average 130 -150 yearly. Big problem in one year only have 1 male client. Even in neighbouring islands , most women don't come because the assistants are male. So when they come give birth they get the implant here at the hospital. Implant lasts 5 years. Men put the responsibility on the women, husband doesnt want her to get the family planning. Insecurity because they think has have another boyfriend, some women come in for emergency contraception because it is safer the husband wont see it, but they come in every 2 weeks. Afraid husband will find out. Do offer IUD but very low rate. Women who go to US to give birth and come back with IUD. only obgyns are only trained for IUD, not nurses. What would lower the pregnancy rate in Majuro? Highschools have said no to having contraception in secondary schools, parents won't allow it. She thinks we should talk to PTA to bring this up with parents. Message needs to be not 'don't have sex', the message needs to be use contraception. Moms dont teach about menstruation. Family Life Educatino (FLE) UNFPA the curriculum has just been endorsed and they will		

implement next year. Some teachers say they are not comfortable talking about these topics with the students.

Date	14 DEC 2023	
Location	Majuro, RMI, near the dump	
Name of institution/ division/ organization	N/A In-community consultations	
Names of attendees	Role of attendees	Gender of attendees
1.Morry	Aunt	Female
2 Jocelyn	Neice	Female
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points: Living on her family land, born here. Grow up here. Finished 10 th grade then dropped out Bullying, fighting. Students stealing her money, and then blaming her. Girls doing this. No help from principal. They don't care. But now there are policies. She has two sons, they are not bullied. Gender thing Jocelyn has daughter in 5 th grade because of bullying. She is scared. She stoped going to school. Boys in school are pulling her hair. Been out of school 2 months. Mother is going to switch her school. Transfer her.		

Date	14 DEC 2023	
Location	Majuro, RMI, near the dump	
Name of institution/ division/ organization	N/A In-community consultations	
Names of attendees	Role of attendees	Gender of attendees
1.Baby	17 years old + 6 month old daughter	Female
2. Joe	Partner, 20 years old	Male
Purpose of consultation:	To learn about the life in RMI and where the gaps are for potential ADB funding.	
Consultation Key Points: She dropped out year 11 because got pregnant. He is paused from college , liberal arts degree. They met on line. Now living in her parents house. Her parents are at work. She was a bit scared about having a baby. Had baby at age 16. A lot of friends have babies young. Don't feel ready to be a mom. Scared feel too young to become parents. Now no choice. They get help from family, sometimes he works part time job. Both plan to finish their schooling. Plan to send the baby to his parents in Ebeve so they can finish school.		

Date	14 DEC 2023	
Location	Majuro, RMI, near the dump	
Name of institution/ division/ organization	N/A In-community consultations	
Names of attendees	Role of attendees	Gender of attendees
1.Jimmy 2. Freddy 3. Joe	Age 57 Age 40 Age 20	Male Male Male
Purpose of consultation:	To learn about the life in RMI and where the gaps are for	

	potential ADB funding.
Consultation Key Points: finished highschool. Started working instead of finishing college. Left school, started working to raise baby. Regret it because its hard. Used to work at fisheries, but not anymore. Not enough jobs here, need factories. Would like to start a fishing business. Too much alcohol. Drink everyday. Stopping him from getting a job. Quit because no more money. Cost of living high. Advise youth to go through school to get certificate. Because marriage and babies. He told daughters that if they were to get pregnant they would have to leave the house and can't get support. Hard love. Need to push children not spoil them. Lots of kids here no school. No law that insits that kids have to go to school. And fine their parents. Need more awareness for family planning.	

List of Stakeholder Consultations, December 2023

- MOCIA: Dora Heine Jekkar, manager Gender in Development desk socialworkrmi@gmail.com; Joy Kaokami, acting director, Child Rights Office mociacrc@gmail.com
- Ministry of Health: Caroline, Manager Ministry of Health Family Planning Desk cjibas@rmihealth.org
- CMI: Dr. Elizabeth Sitaj, Interim president CMI eswitaj@cmi.edu; Malest Bilinmoan, manager of Jaki Ed Weaving Program mbilimon@cmi.edu; Susan weaver in residence, Jaki Ed Weaving Program; Oyinade Ogunmokun director for CMI Counselling Service; Curriitha, counsellor, CMI; Mrs Ninitha Note, manager CMI Peer to Peer program nnote@cmi.edu
- PSS: Junior Paul, PSS Acting Associate Commissioner jpaul@pss.edu.mh; Principal Kenneth Fernando, Life Skills Academy kfernando@pss.edu.mh
- USP: Setoki Qalubau, Acting Campus Coordinator setoki.qalubau@usp.ac.fj
- ESSP: Susan Konwa, project manager suekommwa@gmail.com; Elmi Keju, manager for Ebae elmikeju25@gmail.com; Rahim Saatov, Monitoring and Evaluation rahim.saatov@gmail.com; Meryl Hetine Heine, manager; Sakeasi John Mar, manager, esspcord2.3@gmail.com
- Ministry of Justice, Immigration and Labor: Jo Travis, Labour Director latravis.joe@gmail.com
- WUTMI: Candida - acting director WUTMI wetoinmour@gmail.com; Dania Nook - assistant coordinator WUTMI and counselor; President Hilda Heine, representing WUTMI and Kora fund
- Youth To Youth In Health: Kainok Joseph, finance officer Youth To Youth In Health

- WAM: Binton Daniel, Master Canoe Builder
- Chamber of Commerce: Jeff Tarkwon, VP Chamber of Commerce jeff.tarkwon27@gmail.com; Eunice Bourero, Chamber of Commerce grant and operations manager eunice.borero@rmichamber.com; Charlene Broegu, solar business owner; Joe Uluitanukitu, solar business owner; Chamber Meeting - Presentation by ESSP and NTC
- Kora Fund: Ramona Levi-Strauss, Chair Kora Fund mlevystrss@gmail.com; President Hilda Heine. Board member. hildaheine@gmail.com; Jennifer Holly, board member representing private sector. jhawley06@gmail.com; Marie Maddison, vice president for the fund and founder of WUTMI marieimaddison@gmail.com
- PREL: Yshiwata Lomae lomaey@PREL.ORG; Evelyn Joseph josephe@PREL.ORG; Paul Hadik, President and CEO hadikp@PREL.ORG
- Majuro Water and Sewer Company: Jackie, Jacqueline, Jacqueline.lakmis@gmail.com
- World Bank Early Childhood Development Program: Dr. Pablo Stansbery, Project Manager
- Mayor's Office, Majuro Atoll Town: Randy Jack, Mayor Rhjacko686@gmail.com; Boaz Landrik, Officer Mayor's Office, bzlamdrik@gmail.com
- Lending Agency, Bank of Marshall Islands: Kakom Paul, director MISCO; Velma Edwards, HR Manager, MISCO velma.edwards@bomi.biz
- Pacific Industries Inc.: Dandee Bellosillo, HR Manager dbellosillo@piimajuro.com
- Focus group with young men: Cornelius Jelton, Koni Aidikdik, John Helyes, and Bobby Lasken
- Focus Group with young women: Laurina; Jackie Jacqueline.lakmis@gmail.com; Kimberly Kimberly.Sos@gmail.com; and Halston Mawc.gm@gmail.com
- In Community Consultations: Susana (age 27) and Mason (age 29) Debrum, Jably Village; Clary (age 32) and Madelinie (age 30) Debrum, Jably Village; Carmalinda (age 16), Katalina (age 17), Ermi (age 19), Jably Village; Chief Alap Rosie Debrum Kawaklnie (age 72) Jably Village; Morry (age 28) and Jocelyn (age 28) and 3 children (ages 11, 9, 7), Laura Village; Baby (age 16) and Joe (age 18) and Francsica (6-month daughter), Laura Village; and Jimmy (age 57), Freddy (age 40) and Joe (age 20), Laura Village.
- List of Stakeholder Consultations, February 2024: President's Office Senator Daisy Alik-Momotaro alik_momotaro@yahoo.com; Ministry of Culture and Internal Affairs Secretary Dora Heine Jekkar, socialworkrmi@gmail.com; Sandy Konelious, skonelios@pss.edu.mh; Rubida Alik, Gender Desk rubialik@yahoo.com; Mie Ishiguro, Youth Services Bureau, jodrikdrik.ysb@gmail.com
- Ministry of Education: Dr. Lavinia Tiko, ECE consultant laviniatiko37@gmail.com

- CMI: Dr. Elizabeth Switaj, Interim President CMI eswitaj@cmi.edu
- PSS: Acting Commissioner Mr. Junior Paul; Diane Peter, PSS dpeter@pss.edu.mh; Kenneth Fernando, Principal Life Schools Academy kfernando@pss.edu.mh
- Ministry of Health: Secretary Francine Wase-Jacklik, MOH wasejacklick@gmail.com; Leilani, Ministry of Health, Health Promotions; Chiefs Secretary Deputy Chiefs Secretary Richard Bruce dcsrichardabruce.rmi@gmail.com; Mikela Heine
- Ministry of Justice, Immigration and Labor: Rachael Baack, writer, National Employment Policy rachaelbaack@gmail.com
- Ministry of Works, Infrastructure & Utilities: Secretary Jefferson Barton Work, Infrastructure and Utilities; Mr. Butuna, Work Infrastructure and Utilities secwiubarton.rmi@gmail.com
- WUTMI: Marie Maddison, WUTMI marielmaddison@gmail.com
- Police Commission: Deputy Police Commissioner Eric B. Jorban jorbon2@gmail.com
- World Bank ESSP Project: Susan Kommwa, program manager suekommwa@gmail.com; John Mar, training manager training.manager@ntcinfo.org; Elmi Keju, training manager elmikeju25@gmail.com; Walter Jinanin, assistant manager, ; epp_assistantmanager2@ntcinfo.org; Karness Kusto, manager epp_manager@ntcinfo.org
- NTC: Tania Bukida, deputy director NTC; Romi Reisher NTC training program manager; Llen Lenja, non-resident worker's specialist, NTC lenn.lenja@gmail.com
- Youth To Youth In Health: Giff Johnson, Director of Board giffjohnson@gmail.com; Kainok Joseph, Finance Officer kainokj@gmail.com; Todd Mulroy, former pregnancy prevention project manager tmulroy99@gmail.com
- Jo-Jikum: Kathy Jetnil-Kiljner, Director jkijiner@gmail.com
- WAM: Alson Kelen, Director alsonjkelen@gmail.com

GRIEVANCE INTAKE/REPORTING FORM

Project: Women and Youth Skills Empowerment and Resilience (WYSER) Project

The WYSER Project in Majuro, RMI welcomes complaints, suggestions, comments, and queries regarding project implementation and its stakeholders. We encourage persons with grievances to provide their name and contact information to enable us to get in touch for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing "(CONFIDENTIAL)" above your name. Thank you

Thank you.

Contact Information			
Name		Gender	☐ Male ☐ Female
Home Address		Age	
		Phone No.	
City/Province		Email	
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where, and how) of your grievance below:			
How do you want us to reach you for feedback or update on your comment/grievance?			

Portion to be filled in by the staff:

Date received:	
Received through:	☐ In person ☐ _mail ☐ _email ☐ _fax ☐ _phone ☐ _SMS
Name of staff who received comment/complaint	
Position of staff:	
Type of grievance:	
Remarks	
Signature of staff	

Update on the case:

Date:	Update

OUTLINE OF AN EMP MONITORING REPORT

The PMU is required to prepare and submit to ADB semi-annual monitoring reports that describe progress with implementation of the project EMP, compliance issues, and corrective actions. A sample outline that can be adapted as necessary is provided below.

1. Introduction

Report purpose
Project implementation progress

2. Verification of environmental assessment preparation and approval before commencement of construction

Verify that each project implementing agency (i) produced an environmental assessment document, and (ii) received ADB's no-objection before commencement of construction. Include a copy of the document providing approval in appendixes.

3. Incorporation of environmental requirements into project contractual arrangements

Confirm that EMP requirements were incorporated into contractual arrangements, such as with contractors or other parties. Provide example clauses of contractor bidding documents in the appendixes.

4. Summary of environmental mitigations and compensation measures implemented during the reporting period

Summarize key mitigations listed in the subprogram's EMP. This may include measures related to air quality, water quality, noise quality, pollution prevention, biodiversity and natural resources, health and safety, physical cultural resources, capacity building, and others.

5. Adequacy of public consultation / disclosure activities

Provide information on the number and type of public consultation and disclosure events and key issues raised for all project environmental assessments. It may be useful to provide this information in a table (See Table 1 example).

6. Summary of environmental monitoring

Compliance Inspections. Describe the inspection schedule and methods by the PMU and/or government. Include inspection reports as appendixes. Provide information on mitigation compliance and effectiveness.

Emission Discharge (Source) Monitoring Program (if relevant). Include summary of monitoring, results, and assessment of results. Note that discharge levels should be compared with the relevant discharge standards and/or performance indicators noted in the EMP. Noncompliance should be highlighted for attention and follow-up.

Ambient Monitoring Program (if relevant). Include summary of monitoring, results, and assessment of results. Note that ambient environmental conditions should be compared to the relevant ambient standards and/or performance indicators noted in the EMP. Any exceedances should be highlighted for attention and follow-up.

7. Key environmental issues

Key issues identified during this reporting period (including any grievances or complaints made and how they have been recorded/documented)

Action taken during this reporting period

Additional action required during the next reporting period

8. Conclusion

Overall progress of implementation of environmental management measures Problems identified and actions recommended.

Appendixes

1. Site Inspection / Monitoring Reports
2. Ambient Monitoring Results
3. Public Consultation Results
4. Photographs
5. Others

Note: compliance in each section could be described in qualitative terms or be evaluated based on a ranking system, such as the following:

1. Very Good (all requirements implemented)
2. Good (most requirements implemented)
3. Fair (some requirements implemented)
4. Poor (few requirements implemented)
5. Very Poor (very few or no requirements implemented)

Additional explanatory comments should be provided as necessary.

MARINE ECOLOGICAL ASSESSMENT: SEAWALL AND REVETMENT PROJECT MAJURO ATOLL

1.0 EXECUTIVE SUMMARY

The Asian Development Bank (ADB) and Government of the Republic of the Marshall Islands (GoRMI) have financed the Republic of the Marshall Islands (RMI) Youth Skills Development and Employment Project (YSDEP). The project has three significant outputs with a number of specific project initiatives that will be delivered. As part of Output 1, which focuses on upgrading of existing infrastructure and new construction of gender-responsive and climate-resilient facilities in Majuro to support at risk youth and vulnerable women is the reconstruction of a seawall and revetments to protect existing buildings associated with the local Non-Government Organisation (NGO), Waan Aelon (WAM) in Majel, Majuro atoll. The existing seawall is 48 metres (m) in length and averages 2 m in height above the adjacent intertidal sea floor.

As part of the projects safeguard due diligence, a Marine Ecology Specialist (MES) working directly with the project's Environmental Safeguard Specialist has been engaged to undertake a marine assessment of the marine benthic abiotic habitats, biotic resources and ecosystems directly and indirectly associated with the proposed inshore marine seawall upgrade project. This report details the marine assessment findings, potential environmental impacts and recommends mitigation options for the scope of works at the proposed site location.

A marine biological baseline assessment was undertaken on the coastal and marine biomes associated the intertidal and shallow subtidal marine habitats and benthic substrate directly associated with the shallow water marine ecosystem adjacent to the proposed WAM seawall, Majuro atoll.

The marine assessment was undertaken on Saturday the 25th of May 2024 using free diving (snorkeling) qualitative and quantitative benthic habitat and resource assessment scientific visual survey methods. Data collected included water depth, percent live coral cover, reef condition, dominant benthic forms, dominant hard coral genus and morphological forms, marine algae (turf, macro), seagrass, sediment type. Digital photos and videos were taken of the site and key biological features (biotic and abiotic) and a Global Positioning System (GPS) coordinate recorded for each free dive (assessment location) was included.

In total, Two Free Dives (FD) were undertaken within the proposed site and included the projects perceived direct area of impact (Influence) (FD 1) and the projects indirect area of impact (influence) (FD 2) with each site described separately within this report. The two (2) free dive sites ranged in water depth between 0 and 3.5 m, with FD 1 (direct area of impacts) exposed in part during low spring tides (water depth ranged between 0 and 1.5 m). The intertidal and subtidal reef flat associated with FD 2 differed in water depth with a slow gradual decline in water depth northwards towards the lagoon proper (ranged between 1.5 m and 3.5 m). The areas assessed differed between each free dive site with a total area assessed for FD 1 and FD 2 respectively was 54 m² and 438 m². Total area assessed was 492m².

The key findings of the shallow water marine benthic assessment associated with the FD 1 site (direct area of impact - influence) of the WAM seawall upgrade project include:

- FD 1 site includes the intertidal reef system directly adjacent and boarding the WAM sea wall and covering an area of 54 m².
- The intertidal seabed substrate profile associated with the FD 1 site is relatively homogenous and similar throughout the area. The substrate is characterized by hard reef

bed rock substrate covered with a bottom layer of coarse sand, gravel, rocks and boulders derived from coral reef origins.

- The entire foreshore and intertidal reef flat areas directly and adjacent to the seawall have been significantly altered with significant past reclamation activities undertaken
- The project's direct areas of impact (FD 1) includes the intertidal reef flat that is significantly exposed during low tide that extends the full length of the existing sea wall.
- There were no hard or soft coral individuals or colonies located within the FD 1 site nor was there any remnant evidence of hard corals living within this site nor was hard coral or recruitment recorded.
- No sea grass, mangroves nor rivers/streams located within the assessed site.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage and species diversity was low recording a range benthic coverage of between <5 - 20 %. Dominant species include the brown algae *Sargassum mangroveense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda* sp., and *Caulerpa sertularioides* with isolated small patches of blue green algae (*Schizothrix calcicola*).
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. Two species of the shoreline crab (*Grapsus* sp.), several gastropod snails (*Neritidae*) and two specimens of the polychaete feather duster worm (*Sabellastarte* sp.) recorded.
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and included reef dwelling herbivores (e.g. *Acanthuridae*).
- The marine benthic environment associated with the FD 1 assessment site contains small amounts anthropogenic derived garbage, a physical clean-up of the site is recommended.
- There were no threatened, endangered or endemic hard coral species, other invertebrate – vertebrate species located during the assessment within FD 1 site assessment.
- There were no marine mammals and/or marine reptiles (turtles) recorded within the FD 1 site.
- The benthic substrate associated with the FD 1 site (direct area of impact) due to its environmental characteristics and past significant coastal foreshore and intertidal reclamation activities, the benthic habitat within this area can be considered to have a very low ecological habitat and value.

The key findings of the shallow water marine benthic assessment associated with the FD 2 site (indirect area of impact – influence) of the WAM seawall upgrade project include:

- FD 2 site includes the intertidal, subtidal and lagoon reef systems adjacent to the FD 1 site and WAM sea wall and covers an assessment area of 438 m².
- The intertidal, subtidal and lagoon seabed substrate profile associated with the FD 2 site is relatively homogenous and similar throughout the area. The substrate is characterized by a bottom layer of calcium carbonate coarse sand, gravel, rocks and boulders derived from coral reef origins that rest on a hard subsurface coralline platform that supports an elevated hard substrate (old reef) throughout the subtidal reef areas assessed.
- The entire assessment site has been significantly altered with significant past reclamation activities undertaken throughout the intertidal reef areas adjacent to the FD 2 site. Physical

impacts resulting from past reclamation activities directly impact the shallow intertidal regions of the FD 2 site, whilst subtidal and lagoon benthic substrate show clear evidence of impacts from increased turbidity (sedimentation) due to these past activities.

- Hard coral percent coverage was variable, ranging between <5 and 40 % with higher percent live coverage recorded within deeper subtidal areas of the site including the reef edge and lagoon interface.
- Hard coral and morphological form included small to large, massive boulder corals (*Porities* sp., *Leptoria* sp. and *Favia* sp.), digitate (*Porities* sp. and *Pocillopora* sp.), and branching (*Acropora* sp. and *Pocillopora* sp., *Monitipora* sp.)
- Hard corals showed significant signs of environmental stress (sedimentation and possible temperature) and evidence of hard coral recruitment was recorded, albeit in low levels.
- All hard corals are common species within Majuro lagoon, Marshal islands and regionally, and are adaptive to marine conditions located within this site. Their presence is a direct relationship to availability of a hard surface to colonize with suitable marine water conditions.
- No soft corals were recorded; however one specimen of the upside-down jelly fish *Cassiopea* sp. was recorded.
- No Crown of Thorns (COTS), coral eating gastropod snails (e.g. *Drupella* sp.) or coral disease were recorded during the assessment.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage was significant ranging between ,5 and 90 % benthic coverage and moderately high level of species diversity was recorded Dominant species include the brown algae *Sargassum mangarevense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda* sp., and *Caulerpa sertularioides* with isolated small patch of blue green algae (*Schizothrix calcicola*).
- One small, isolated patch of sea grass (*Cymodocea rotunda*) was recorded approximately 25 m east of the southeastern end of the WAM sea wall (well outside the direct area of impact of the project) covering an area of 20 m². The seagrass showed signs of stress due to high sedimentation and possibly elevated water temperatures.
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. A healthy albeit small number of pistol shrimp (*Alpheus* sp.) and goby (*Amblyeleotris* sp.) burrows were located, several specimens of sea cucumber (*Bohadschia vitiensis*) and polychaete feather duster worm (*Sabellastarte* sp.).
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and include reef dwelling herbivores (e.g. *Acanthuridae*, *Scaridae*) and reef dwelling planktivores (e.g. *Pomocanthidae*).
- A small marine mussel was located in high population densities (up to 50%) attached to the concrete substrate of the WAM ramp. It was located nowhere else within the site assessed nor neighboring shallow water environments. This mussel species is unknown and possibly is an introduced species. Further identification is required.
- The marine benthic environment associated with the FD 2 assessment site contains small amounts anthropogenic derived garbage, a physical cleanup is recommended.

- There were no threatened, endangered or endemic hard coral species, other invertebrate – vertebrate species located during the assessment within FD 2 site assessment.
- There were no marine mammals and/or marine reptiles (turtles) recorded within the FD 2 site.
- The benthic substrate associated with the FD 2 site (indirect area of impact) due to its environmental characteristics and past impacts (sedimentation) from significant coastal foreshore and intertidal reclamation activities, the benthic habitat within this area can be considered to have a low ecological habitat and value. The species recorded are found throughout the Majuro atoll and nation.

As such the replacement of the WAM seawall does not impact any marine, coastal or terrestrial conservation and/or protected area, sites of cultural, customary or heritage significance nor any national or international marine, freshwater or terrestrial endangered or protected species. Thus no impacts on critical habitats are associated with this project. Based on the projects scope of works all hard coral colonies and the sea grass “patch” are located outside of the direct areas of physical impact and as such is not expected to be impacted by the project.

A summary of the key marine benthic Biodiversity Conservation and Sustainable Natural Resource Management status for the WAM seawall replacement site using the ADB Safeguard Policy Statement Appendix 1 – section 8 are presented below.

FPV Location Site	Marine Ecology	Impact Summary	Biodiversity Conservation & Sustainable Natural Resource Management Status		
			Modified Habitat	Natural Habitat	Critical Habitat/ Species
WAM Seawall Site	Sea shoreline – Inner lagoon site –protected within lagoon. Inner lagoon fringing coral reef present. Hard coral present – low diversity & low densities restricted to subtidal reef and lagoon, none within direct area of impact. No mangrove present. One small patch of sea grass outside direct area of impact. Marine coastal environment – full salinity. No rivers or streams – freshwater only during rainfall Limited (paucity of) benthic sessile invertebrate communities. Sand - Silt – coral rubble dominated benthic substrate. Extensive foreshore & intertidal reclamation – alteration.	Very minor ecological – resource impacts. No threats to areas marine inshore & coastal biodiversity. No hard corals, seagrass within direct area of impact. No endangered or endemic flora and fauna species present. Very small localized site specific footprint increase in suspended sediment during infrastructure construction. Very minor potential petrochemical spillage during construction.	Yes. Extensive foreshore and inshore coastal rehabilitation and alteration. Expected to continue in the future. Adjacent to significant land fill – reclaimed on intertidal reef flat.	Well outside of seawall site	None Recorded

FPV Location Site	Marine Ecology	Impact Summary	Biodiversity Conservation & Sustainable Natural Resource Management Status		
			Modified Habitat	Natural Habitat	Critical Habitat/ Species
	Highly disturbed ecosystem, includes foreshore reclamation. No MPA or other managed areas.	All localized to project footprint. All completely reversible and manageable.			

Potential Impacts: The impacts derived from the marine scope of works for the replacement of the WAM seawall, Majuro atoll are expected to be minor, localized to the immediate footprint of the works, and easily managed through standard engineering good practice mitigation measures. There are no threats to the area's marine and coastal biodiversity associated with the projects. As such the potential impacts of the works on the marine environment are considered to be minor, temporary, mitigatable and overall insignificant.

Mitigation Measures: Recommended mitigation measures during the construction phase of the project should ensure due diligence when operating machinery during all work activities to prevent and manage petrochemical spillage and contamination of the waters associated with the sites. The use of a silt curtain is recommended during the construction phase of the project to manage and reduce sediment dispersion during physical works.

The overall potential impact of the works on the marine biological environment is expected to be minor, localized and overall insignificant provided standard mitigation measures associated with good engineering practice as identified above are implemented. Furthermore, due to the nature of potential minor impacts of the scope of works it is recommended that no specific marine monitoring program is required other than close supervision of the works to ensure that the above recommended mitigation measures are implemented and effective throughout the marine construction works.

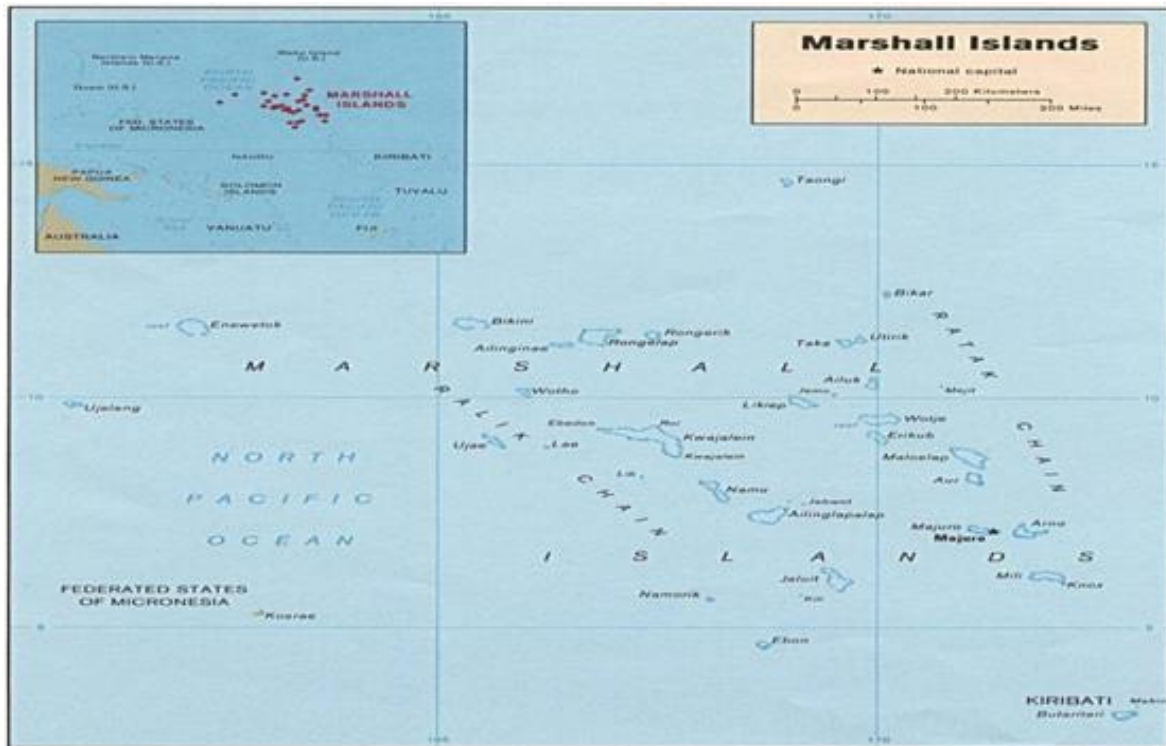
2.0 INTRODUCTION

2.1 Background

The Republic of the Marshall Islands (RMI), which is located approximately midway between Hawaii and the Philippines, consists of 29 atolls, 5 low elevated coral islands and numerous small islets with the highest elevation of 8 meters (m) and are located in the north central Pacific Ocean. The country covers an area of 1.9 million square kilometers (km²) but has just 181 km² of land area (Figure 1). The atolls and islands within the archipelago consist of two roughly parallel island chains: the western "Ralik" ("sunset") and eastern "Ratak" (sunrise) chains. The atolls extend approximately 1130 km north to south, from 14°43'N – 4°34'N and approximately 1290 km east to west, from 160°48'E – 172°10'E.

The majority of the islands are inhabited with an overall population of about 55,000, of which over half the population resides in the national capital of Majuro with remaining population residing either on Ebeye Island on Kwajalein Atoll, a large US military installation or on the scattered atolls within the nation.

Figure 1: Locality map of the Marshall Islands and neighboring nations.



Traditional, social and cultural institutions are very strong. Marshallese society is based on the extended family, which is responsible for the family welfare, especially in relation to customary family land. Ownership of land and marine areas varies between islands. However, the majority of land and marine areas within five nautical miles outside the reef (ocean side) are owned by the communities through traditional land ownership and managed in conjunction with atoll local governments.

All marine zones within RMI atolls below the Mean High-Water Mark (MHWM) falls under the jurisdiction of local councils and governments. RMI Law, Title 9, Public Lands and Resources, Chapter 1: Section 103. "Rights in areas below high-water mark. (1) that portion of the law established during the Japanese administration of the area which is now the Republic that all marine areas below the ordinary high-water mark belong to the government, is hereby confirmed as part of the law of the Republic". Land cannot be sold to non-citizens of the RMI. These land and marine ownership patterns greatly influence and complicate access usage of marine resources and therefore play a critical role in the collection of lagoon-based aggregates for the nation's development requirements.

The national constitution of the RMI is the basis for legal authority and decision making in the nation. In addition to the western-style democratic government, a traditional Marshallese governing system including a council of 12 paramount chiefs acts as an advisory body to the national government, especially on matters that affects customary land, law, traditional practices and land tenure.

Each inhabited island within the nation through its elected local councils holds jurisdiction over their own atoll including land, lagoon and water up to 5 nautical miles offshore from their reefs. These local governments are based on the national legislative system and have the powers to introduce laws and regulations pertinent to their atoll's affairs. In addition, the traditional

hierarchical system of landowners plays a vital role in each atoll's management. The local island councils and traditional owners, therefore, have jurisdiction over the majority of coastal areas and therefore are responsible for regulations and enforcement for all marine activities including the development of marine structures (e.g. docks) and abiotic and biotic resource collection.

The project's Initial Environmental Examination (IEE) provides a clear description of the environmental and marine legislative requirements of the project and should be referred, this information is not repeated herein.

2.2 Project Description

The project's development objective (PDO) is to deliver a social protection project to improve young people's access to productive livelihoods and decent jobs. Output 1 of the Project will focus on facilities that will support the upgrade of existing infrastructure and new construction of gender-responsive and climate-resilient facilities and protections in Majuro to support at risk youth and vulnerable women. There are three proposed works, all on Majuro atoll, which include i) the reconstruction of a seawall and associated revetments, ii) renovation and extension of the Majuro Women Centre, and iii) demolition and construction of a new two-story family and daycare center.

The proposed Seawall and Revetment Work Site (Figure 2) is located in Majuro atoll, adjacent to the Waan Aelōñ building complex in Majel (WAM) which is a local NGO supporting at-risk youth through traditional skills as a medium to transfer life skills and training. The project is located within the Majuro lagoon directly on the foreshore and adjacent intertidal reef flat in an urban setting. The coastal terrestrial environment, foreshore and intertidal reef flat associated with the project and neighbouring areas are highly modified with significant land and foreshore alteration. The current seawall wall is 48 meters in length and 2 meters in height and all the works are restricted to the WAM terrestrial site and adjacent intertidal reef flat (refer Figure 2).

Figure 2: Location of the WAM seawall and revetment sites, Mauro Atoll



2.3 Marine Environments

The Marshall Islands geomorphological structures consist of only coral atolls and raised limestone islands that are surrounded by an outer barrier reef which is interrupted at intervals by water passes allowing water to enter the lagoon.

The nation's complex marine habitats stretch from Ebon atoll (4°35'58.33"N, 168°41' 56.65"E) in the south to Bokaak (Taongi) Atoll (14°38'46.86"N, 168°58'29.27"E) in the north. The atolls vary in size from Kwajalein, the largest in the world with a lagoon area of 2,174 km², to Namdrik atoll with a lagoon area of only 8.4 km². The nation has an Exclusive Economic Zone (EEZ) of 2,001,385 km² with a total land area of 181 km².

Coastal resources, especially close to urban centers of Majuro and Ebeye, are over exploited. Inappropriate and unsustainable fishing practices are being employed. These practices have led to increased competition between resource users and have accelerated resource depletion, habitat alteration, degradation and in some cases destruction of the habitat. Coastal degradation due to poor land use management practices, sand mining and dredging operations (terrestrial and marine), land reclamation (ocean and lagoon areas) and pollution, especially in the urban centers of Majuro and Ebeye is a growing concern for the nation. Coastal foreshore and intertidal shallow water lagoon areas within Majuro lagoon have been significantly altered with large areas reclaimed for both private and commercial use. The project WAM site is one such area.

Coral reefs and their associated ecosystems and biomes are the only shallow marine feature of the nation. All major types of coral reefs are found within the RMI, including barrier reefs, fringing reefs, large lagoons and submerged reefs. These biomes include mangrove forests (albeit restricted to several atolls only), sea grass beds, algal beds, and foraminifera and coral sand lagoons.

The basic tide parameters throughout the Marshall Islands includes a maximum tidal variation of less than 2 m (meso-tidal) and are semi diurnal (2 tides a day) with a diurnal inequality and considerable daily variability in amplitude. The annual range of sea water surface temperature ranges between 27-30 degrees Celsius. Inclement weather systems (e.g. tropical storms) have a marked impact on tidal height and cause increased coastal erosion if they coincide with high water periods.

The nation has no permeant rivers or streams. Groundwater seepage is the main mechanism by which dissolved contaminants and nutrients move from the terrestrial environment to the marine. In general, there is no surface freshwater runoff from the atolls due to their low-lying, porous nature and small land areas, however runoff can occur in urban environments where hard surfaces predominate.

Atolls within the RMI shows the typical morphology of a coral reef associated with a Pacific atoll from the sea ward side to the lagoon and include:

- outer reef drop off;
- lower and upper outer reef slope;
- reef crest and edge (including spur and groove formation);
- subtidal and intertidal reef flat;
- beach rock and sand rubble beach;
- Island;
- beach rock and sand/coral rubble beach;
- intertidal and subtidal reef flat;
- lagoon reef edge;
- lagoon reef slope; and
- lagoon proper.

The morphological reef areas associated with the projects site include the marine habitats associated with the inshore lagoon environments including the beach rock and sand/coral rubble beach (reclaimed), intertidal and subtidal reef flat and lagoon proper. The project's direct area of impact is restricted to the coastal foreshore and upper areas of the intertidal reef flat only, the former being reclaimed by previous reclamation activities.

2.3.1 Threatened and Protected Species

The International Union for Conservation of Nature (IUCN) Red List of Threatened Species records 3,248 species from 331 families and seven phyla listed as potentially occurring within the west Pacific marine region. This includes eight species that are critically endangered (facing an extremely high risk of extinction in the wild) including two sharks, one turtle, two sawfish, one stingray, one coral and one type of mangrove and 43 that are endangered (facing a very high risk of extinction in the wild) including sharks, rays, wrasses, sea snakes, sawfish and the green turtle (*Chelonia mydas*). Some 290 species are also listed as vulnerable and 234 as near threatened. These include several species of sharks and rays, sea snakes, whales, marine turtles (including hawksbill, leatherback and loggerhead) and corals from the families Acroporidae, Agariciidae, Dendrophylliidae, Euphyllidae, Faviidae, Helioporidae, Milleporidae, Mussidae, Oculinidae, Pocilloporidae, Poritidae and Agariciidae.

The RMI is reported to have a total number of 5812 flora and fauna of which 1524 are native species (26.1%) with the majority of the nation's land native species are crabs (e.g. hermit crabs *Coenobita* sp.). The coral reefs of the nation host 342 hard coral species and 880 fin fish species.

Endemism is low, recording 57 species in total throughout the nation, only 4 species have been assessed by the IUCN of which three are endangered and one is extinct. Eniwetok atoll has eight endemic species, Arno and Kwajalein have four and Ailinglaplap, Bikini, ebon, Jaluit and Rongerik atolls have one species.

A number of endemic species have been recorded including the rare Pacific elkhorn (*Acropora palmata*) hard coral species only found to date on Arno atoll from one section of the outer reef approximately 2 km in length within 2-3 m of water.

The IUCN Red list categorizes 2,131 species within the RMI, including one (1) Critically Endangered (CE) species (Hawksbill Turtle - *Eretmochelys imbricata*), twelve (12) Endangered (EN) species, 88 vulnerable (VN), 123 Near Threatened (NT), 3 Lower Risk (Conservation dependent), 70 Data Deficient (DD) and 835 of Least Concern (LC). Table 1 provides the list of critically endangered and endangered species for the nation.

The RMI government recognizes 61 species or subspecies to be considered for conservation within the nation. This includes;

- 13 nationally endangered or critically endangered species (five marine mammals, three birds, and five marine reptiles: one being critically endangered – hawksbill turtle).
- 5 are vulnerable species – one bird, one shark, three arthropods, (*Tridacna gigas* and *T. derasa*) giant clam species, and the Triton's shell (*Charonia tritonis*) – and one extinct species, the Wake Rail (*Gallirallus wakensis*).

The 18 threatened species represent 31% of total species considered for conservation within the RMI. The other 43 species are listed as Near Threatened, Low Risk or (with conservation measures), Data Deficient or Least Concern. The RMIs threatened species list includes the endangered, vulnerable and critically endangered – species, and most are found in the marine environment, with terrestrial plants making up just 0.5%.

The RMI government takes the threatened species issue seriously and has made initiatives to establish legislation to protect 19 endangered species: 18 are marine and one terrestrial species. Other threatened species are protected by individual atolls and local government jurisdictions. Local atoll governments set restrictions on land and near-shore marine resources, which include the conservation of biodiversity. The Marshall Islands Marine Resources Authority (MIMRA) provides advice and technical assistance to local governments.

Four marine turtle species are native to the RMI, including the Leatherback (*Dermochelys coriacea*) and Olive Ridley (*Lepidochelys olivacea*), which are considered vulnerable; the Green Turtle (*Chelonia mydas*), which is considered endangered, and the Hawksbill Turtle (*Eretmochelys imbricata*), which is critically endangered. In addition, seventeen cetacean species are listed by the IUCN as being found in the waters of the RMI including the sperm whale (*Physeter macrocephalus*), which is considered to be vulnerable.

Table 1: Critically endangered and endangered species of the RMI as identified by the IUCN (2018)

Species	Common name	Red List Categorization
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Critically Endangered
<i>Chelonia mydas</i>	Green Turtle	Endangered
<i>Holothuria nobilis</i>	Black Teatfish	Endangered
<i>Holothuria whitmaei</i>	Black Teatfish	Endangered
<i>Thelenota ananas</i>	Prickly Redfish	Endangered
<i>Cheilinus undulatus</i>	Giant Humphead wrasse	Endangered
<i>Stegostoma fasciatum</i>	Zebra Shark	Endangered
<i>Megaptera novaeangliae</i>	Humpback Whale	Endangered
<i>Isurus paucus</i>	Longfin Mako	Endangered
<i>Isurus oxyrinchus</i>	Shortfin Mako	Endangered
<i>Rhincodon typus</i>	Whale Shark	Endangered
<i>Emoia boettgeri</i>	Micronesia Forest Skink	Endangered
<i>Perochirus ateles</i>	Dumeril's Tropical Gecko	Endangered

2.3.2 Marine Management

The RMI has been active in the management and protection of its marine and terrestrial resources through a government, traditional owner and community partnership. This is regulated by the Protected Areas Act (2015) and updated Regulations (2020) which has resulted in a Protected Area Network (PAN) system which is housed within MIMRA. The function of nations PAN is to expand on past management and protected area interventions to ensure a sustainable and resilient nation, where natural and cultural resources are effectively managed and conserved for the future generations. There are four types of PAN protected areas these include;

- (i) **Type I – Subsistence only.** This area is managed for subsistence non- commercial use. In international standards – this relates to the IUCN Category VI – Managed Resources Protected Area.
- (ii) **Type II – Special Reserve.** This area is subjected to a high level of protection, and occasionally a very low level of subsistence or special occasional activity. In international standards – this relates to the IUCN Category Ib –Wilderness Area. E.G are the atolls of Ailinginae and Bikini that have high levels of protection and restriction on human activities.
- (iii) **Type III – Restricted and Protected Area.** This area has total restriction subject to np activities, either within a large, protected area or in an identified protected area.
- (iv) **Type IV - Traditional Mo.** This area includes either parts of land, a whole island, or a reef area that is managed and restricted through the practices of Mo by chiefs (Iroij) only.

Fifteen atolls within the nation are currently managed under the PAN (Table 2). This includes Majuro Atoll. In addition, several atolls are currently working with the communities and traditional owners to finalise their atoll specific protected areas. Wotje atoll's protected area is proposed as a Conservation Area.

In total, 5388.4 km² and 33.59 km² marine and terrestrial areas respectively are protected within the RMI, equating to 0.27% and 11.9 % of total marine and terrestrial areas respectively. In addition, since 2010 the RMI has declared all marine waters to be a shark sanctuary prohibiting shark fishing and the release of all shark bycatch.

Table 2: RMI Protected Area list

Atoll	Designation	Reported Terrestrial Area km ²	Reported Marine Area km ²	IUCN Category
Bikini	Conservation Area	2,120.8	2,032.87	Ib
Ailuk	Conservation Area	25.13	24.11	VI
Rongelap	Conservation Area	2,912.76	2,787.48	VI
Namdrik	Conservation Area	26.59	16.19	VI
Rongerik	Conservation Area	1,047.87	1,002.38	VI
Jaliut	Conservation Area Ramsar site	201.93	197.42	VI
Mili	Conservation Area			
Bokaak	Other Area	106.97	0	Ia
Kwajalein	Conservation Area	7.77	7.77	Ib
Bikar	Other Area	56.31	0	Ia
Ailinginae	Conservation Area	1,086.58	1,024.74	Ib
Majuro	Conservation Area	2.83	0	Ib
Namdrik	Ramsar Site – Wetlands	26.59	16.19	?
Arno	Conservation Area	71.45	62.25	VI
Likiep	Conservation Area	0.32	0.31	VI

2.4 Marine Baseline Assessment

A marine biological baseline assessment was undertaken on the coastal and marine biomes associated the intertidal and shallow subtidal marine habitats and benthic substrate directly associated with the shallow water marine ecosystem adjacent to the proposed WAM seawall, Majuro atoll. This information provides the marine biological baseline data for the background,

discussion and conclusions sections in the body of the project Initial Environmental Examination (IEE) for the proposed seawall replacement sites associated with the YSDEP (ADB RMI 56192-001).

The marine assessment was undertaken on Saturday the 25th of May 2024 using free diving (snorkeling) qualitative and quantitative benthic habitat and resource assessment scientific visual survey methods.

In total, Two Free Dives (FD) were undertaken within the proposed sites and included the projects perceived direct area of impact (Influence) (FD 1) and the projects indirect area of impact (influence) (FD 2) and are describe in separate result and discussion sections below. The free dives included the marine benthic abiotic and biotic habitats and resources surrounding the sea wall (direct and indirect areas of influence) and have been analyzed to provide a comprehensive marine description of the benthic marine ecosystems associated with the project site.

The assessments included documentation (photographic and video) of the shallow water benthic habitats including the shoreline and inshore intertidal and subtidal marine ecosystems at the assessment location. The assessment was undertaken during day light hours.

2.5 Methods

The marine resource and ecological assessment utilized standard and acceptable international marine biological methods (English et al., 1997) and was performed by the project team's marine ecologist, entering the water from the shoreline at the site.

Free diving (snorkeling) and foreshore walking during low tide periods utilizing scientific visual survey methods were employed to assess and provide a general description of the shallow intertidal and subtidal reef flats and adjacent lagoon marine ecosystems associated with the sea wall location. The marine assessments in water field activities were completed in a single day.

The marine assessment included a qualitative and quantitative habitat and resource assessment based on the data set provided of the existing coastal intertidal and subtidal marine environments associated with the project site including the extended area of influence of the projects expected scope of works.

Data collected included water depth, percent live coral cover, reef condition, dominant benthic forms, dominant hard coral genus and morphological forms, marine algae (turf, macro), seagrass, sediment types and physical description including water movements/currents. Digital photos and videos were taken of the site and key biological features (biotic and abiotic) and a Global Positioning System (GPS) coordinate recorded for each free dive (assessment location) was included.

Previous published reports associated with the marine environments of the RMI, specifically Majuro lagoon was reviewed and used as required for baseline data comparisons and references where available.

In total, two (2) free dives (snorkeling) were undertaken during the assessment and included the intertidal and subtidal coastal shoreline and associated reef systems directly adjacent and associated with the projects site. The water depth associated with the proposed site was shallow (maximum depth of less than 3.5 m) and a such did not require SCUBA.

The two (2) free dive sites (Figure 3) ranged in water depth between 0 and 3.5 m, with FD 1 (direct area of impacts) exposed in part during low spring tides (water depth ranged between 0 and 1.5 m). The intertidal and subtidal reef flat associated with FD 2 differed in water depth with a slow gradual decline in water depth northwards towards the lagoon proper (ranged between

1.5 m and 3.5 m). The areas assessed differed between each free dive site with a total area assessed for FD 1 and FD 2 respectively was 54 m² and 438 m². Total area assessed was 492m².

Figure 3: Free Diving sites (FD 1 and FD 2) assessed for the WAM sea wall project during the marine benthic assessment.



3.0 Site Description and Marine Benthic Assessment Results

This section details the baseline survey results for the marine benthic abiotic habitat and biotic resource (intertidal and subtidal) assessment undertaken for the project site. The assessment results and discussions are divided into two separate sections based on the projects direct (FD 1) and indirect (FD 2) area of influence anticipated from the scope of works during the construction phase of the project. All marine areas outside of the areas assessed (FD 1 and FD 2) are anticipated to have no impacts to the marine biotic and abiotic resources from the scope of works associated with the seawall replacement and revetment works.

The projects Direct Area of Influence includes all marine areas that are anticipated to receive impacts directly associated with the project scope of works. Physical impacts to the benthic marine resources and substrate are restricted to the small marine areas directly adjacent to the existing seawall. Impacts associated with potential elevated suspended sedimentation resulting from the works is expected to be minor to very minor, dispersed quickly on the diurnal tidal currents associated with all sites and will impact only sessile flora and fauna in close proximity to the sediment dispersal area adjacent to sites.

3.1 Marine and Foreshore Site Description

The WAM seawall and revetment work site is located within the inner lagoon in the south eastern corner of Majuro atoll (indicative coordinates are (7°05'11.7"N and 171°22'18.9"E) and is approximately 0.9 km west of the national capital building and 10 km east of the airport.

The project site is directly adjacent (north) and connected to the Waan Aelōñ building complex in Majel (WAM), which is located on a reclaimed coastal foreshore and intertidal reef flat within the lagoon (refer figure 2 and 3). The existing seawall and associated revetment works are directly connected and accessible to the shoreline through past reclamation activities that have reclaimed approximately 50 m of the fringing reef within the Majuro Lagoon at this site. The site has a number of free standing buildings, some of which are being currently rebuilt and is located adjacent to the existing's seawall, all of which are associated with WAM functions (Plate 1).

Plate 1: WAM site and associated infrastructure adjacent to the project site.



The existing seawall is approximately 48 m in total length and 2 m in height (Plate 2 a). It is not structurally sound and has been supported externally to ensure its structural integrity remains until the work proposed under this project is undertaken (Plate 2b). It is connected directly south to a sloping concrete ramp approximately 30 m in length that has been constructed on the reclaimed intertidal reef flat (Plate 2 c) that is used to launch traditional sailing canoes built at the WAM (Plate 2 d).

The concrete ramp then connects to a series of foreshore gabions that have been constructed directly onto the foreshore and intertidal reef interface substrate (Plate 3 a) and along the foreshore to be used as a revetment wall (Plate 3 b). The gabions extend east along the majority of the foreshore of the Marshall Islands Resort (MIR) and in sections have been built over to allow lagoon expansion of the resort. A sand beach has accumulated to the east of the seawall and is associated with remnants of the original intertidal hard reef system adjacent to the resort (Plate 3 c). The beach is composed entirely of calcium carbonate coral sand, is approximately 70 m directly east of the WAM seawall, is approximately 25 m in width, covers an area of 1,100 m² and is exposed during low tide (refer Figure 2).

Further east adjacent to the resort and further along the lagoon significant past reclamation and dredging operations associated with the foreshore and lagoon intertidal reef flat has occurred (Plate 3 d). Anecdotal information provided during the assessment indicated additional reclamation activities are planned to further expand the resorts access to the lagoon, these actions if undertaken will reclaim additional intertidal reef areas east of the WAM seawall site.

Plate 2: Infrastructure associated with the project site and to the east.

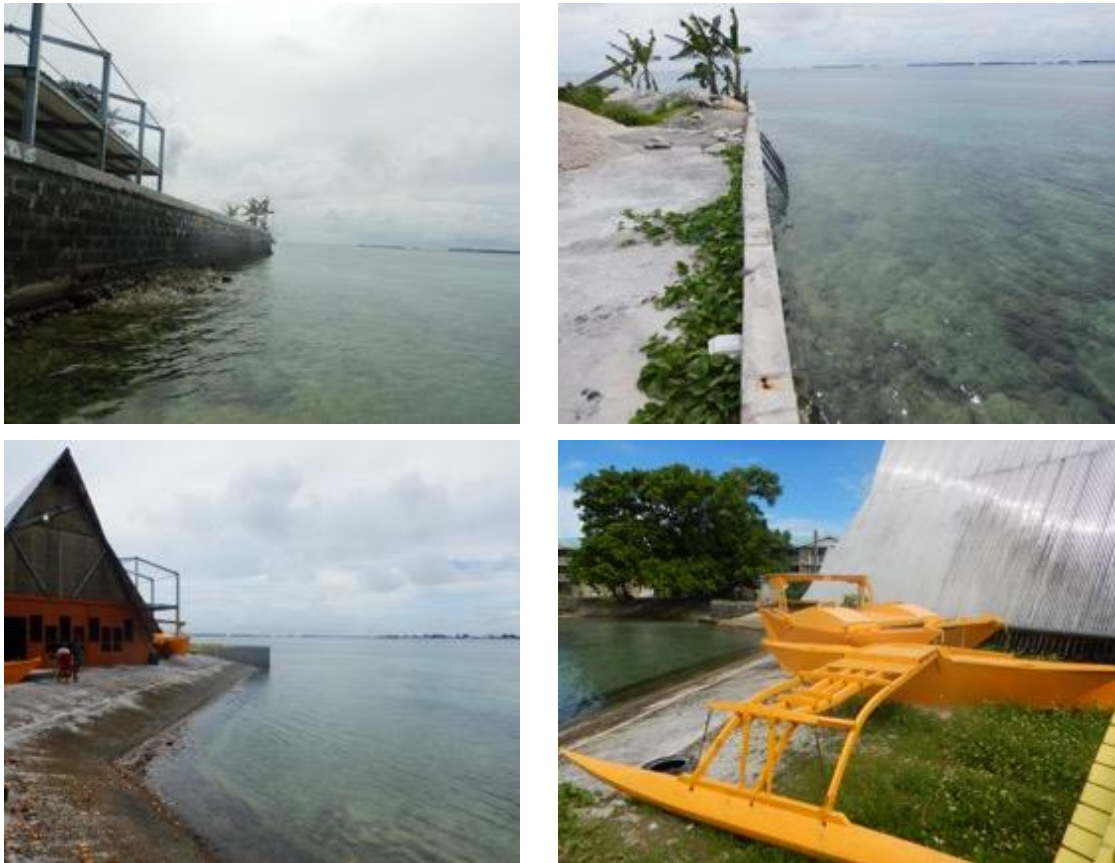


Plate 3: WAM site and associated infrastructure adjacent and east to the project site.



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The WAM seawall is directly connected (west) to a concrete seawall of similar height associated with the adjoining public-school property, which extends along the peripheral of the intertidal reef flat boundary and reclaimed land (Plate 4 a and b). The seawall at this site includes the placement of boulder size reef rocks along the seawall and intertidal reef interface (Plate 4 c) and has been backed filled with dredged material and rubbish on the foreshore side (Plate 4 d). Further west significant foreshore and intertidal reef systems have been reclaimed. The eastern corner of this seawall and adjacent marine ecosystem are included in the direct and indirect area of the project's scope of work.

Plate 4: WAM site and associated infrastructure west of the project site.

The natural vegetation within the WAM site and neighbouring shorelines to the east and west is limited, due to foreshore and terrestrial reclamation and significant infrastructure development. Several large *Calophyllum inophyllum* (Lukweij – Jijo) and pandanus (*Pandanus amaryllifolius*) trees were located in front of the MIR adjacent to (east) the WAM site (Plate 5 a and b), several she oaks (*Casuarina equisetifolia*) (Plate 5 c), small scrubs and perennial grasses were located to the west of the WAM site, whilst the only vegetation located within the WAM site included several small banana trees (*Musa* sp.) (Plate 5 d) and sparse perennial grass.

Plate 5: Examples of vegetation within the WAM site and neighbouring land parcels adjacent to the WAM project site.



Past foreshore and intertidal reef reclamation activities associated with the WAM existing seawall, adjacent ramp to the south and seawall to the west have significantly altered the coastal foreshore and intertidal ecosystems resulting in significantly changing to the abiotic and biotic resources within the area and localized marine water dynamics and circulation patterns.

3.2 Marine Baseline Site Description and Result – Direct Area of Influence (FD 1) – WAM project site.

FD 1 assessment site is located on the intertidal reef flat directly adjacent (east) to and extends along the entire existing WAM site seawall (Figure 4). The assessment was undertaken during high tide (free dive), has an approximate length of 54 m, a width of 10 m, and had a water depth throughout site during the assessment of between 0.25 and 0.75 m. The assessment site is exposed in close proximity to the seawall during periods of low water.

The northwestern boundary was located 5 m past the existing seawall (7°05'12.03"N 171°22'18.2"E) and extends southeast along seawall and terminates past the seawall 5 m adjacent to the concrete ramp (7°05'11.35"N 171°22'19.74"E). FD 1 site was entirely within the shallow intertidal reef flat with a total assessed area of 54 m².

Figure 4: FD 1 assessment site showing key abiotic and biotic resources recorded during the marine benthic assessment.



A lagoon intertidal coral reef ecosystem and associated benthic resources are located adjacent to the seawall. The marine benthic abiotic habitat and biotic resources throughout the assessed area (FD 1) reflects a functioning marine ecosystem that has adapted to the past and current significant physical reclamation and heavy subsistence resource extraction (fishing, reef gleaning etc) undertaken within and adjacent to this site. The original lagoon foreshore, beach, beach rock and intertidal reef flat have been reclaimed throughout the site assessed with the existing seawall constructed on the outer areas of the original intertidal reef flat.

The intertidal reef flat abiotic benthic substrate associated with the FD 1 site is relatively homogenous throughout the area assessed. It is characterized by a calcium carbonate (coral) derived fine sediment, sand, coral rubble and small rocks/boulders (Plate 6). Anecdotal information acquired during the assessment indicated the coral rocks and boulders located within this site are derived both from debris placed during past reclamation activities and natural coral rock deposited during inclement weather from the surrounding reef and past dredging operations associated with neighboring properties (e.g. MIR).

Water turbidity and resulting water clarity associated with the FD 1 site varies and is directly related to tidal height and localized weather conditions (wind and subsequent waves) persisting at any one time. Anecdotal information acquired during the assessment indicated that during inclement weather conditions, especially associated with high tide periods, waves impact the existing seawall with wave splash overtopping the seawall.

Plate 6: Representative photos of the benthic substrate within FD 1 assessment site.



There were no hard or soft coral individuals or colonies located within the FD 1 site nor was there any remnant evidence of hard corals living or recruitment within this site. There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities throughout the FD 1 site. Two individual shoreline crabs (*Pachygrapsus* sp.) were recorded associated with the seawall, whilst several gastropod snails were recorded associated with the rock/boulders in front of the concrete ramp to the east of the wall and two individual polychaete feather duster worms (*Sabellastarte* sp.,) were located attached to the substrate towards the eastern end of the site (Plate 7a).

There was an absence of finfish species recorded during the assessment. The absence of fish during the survey may be attributed to the time of the assessment (day light hours), tidal height restricting habitat availability and fishing pressure. The only finfish recorded were several juvenile herbivores (e.g. Acanthuridae) who were moving through the area.

Healthy and variable benthic percentage coverage of macroalgae was recorded throughout the assessment area. Percentage coverage was low and ranged between <5% and 20%, with higher percentage coverage recorded within the intertidal reef areas to the northeast within the site assessed (Plate 7 b, c and d). The dominant macroalgae species in order of abundance included, *Sargassum mangarevense*, *Padina boryana*, *Dictyota bartayresina*, *Halimeda* sp., and *Caulerpa sertularioides*. Isolated small patches and mats of the cyanobacteria (blue green algae) *Schizothrix calcicola* (< 5 % coverage) were recorded associated with the areas in close proximity to the seawall with slightly higher percentage coverage recorded in the southern areas of the site.

There were no sea grass, mangrove nor rivers/streams recorded within FD 1 site.

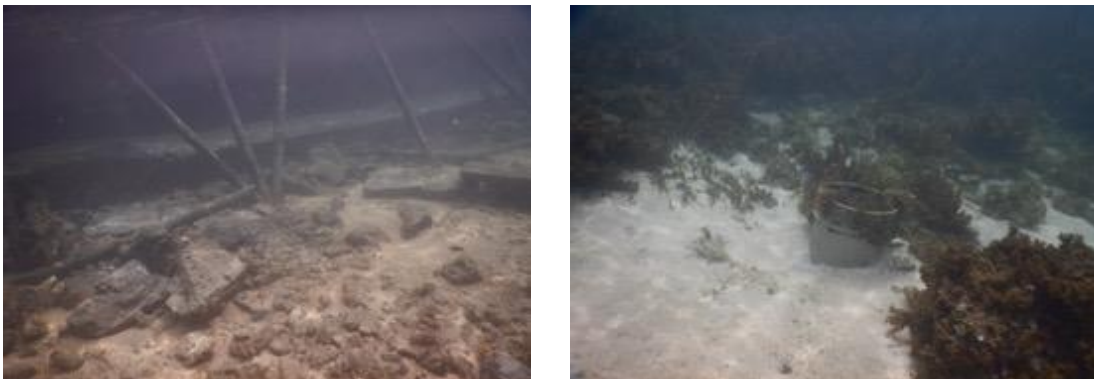
Plate 7: Representative photos of the marine resources and macroalgae recorded within FD 1 assessment site.





The marine benthic environment associated with the FD 1 site contained only small amounts anthropogenic derived waste material (e.g. cement blocks) and garbage originating predominately from land sources (Plate 8). It is recommended that all anthropogenic items be collected and removed from the site.

Plate 8: Examples of anthropogenic waste material recorded within the FD 1 intertidal reef site.



3.3.1 Key Findings of the FD 1 Marine Assessment

The key findings of the shallow water marine benthic assessment associated with the FD 1 site (direct area of impact - influence) of the WAM seawall upgrade project include:

- FD 1 site includes the intertidal reef system directly adjacent and boarding the WAM sea wall and covered an area of 54 m².
- The intertidal seabed substrate profile associated with the FD 1 site is relatively homogenous and similar throughout the area. The substrate is characterized by hard reef bed rock substrate covered with a bottom layer of coarse sand, gravel, rocks and boulders derived from coral reef origins.
- The entire foreshore and intertidal reef flat areas directly and adjacent to the seawall have been significantly altered with significant past reclamation activities undertaken
- The projects direct areas of impact (FD 1) includes the intertidal reef flat that is significantly exposed during low tide that extends the full length of the existing sea wall.

- There were no hard or soft coral individuals or colonies located within the FD 1 site nor was there any remnant evidence of hard corals living within this site nor was hard coral or recruitment recorded.
- No sea grass, mangroves nor rivers/streams located within the assessed site.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage and species diversity was low recording a range benthic coverage of between <5 - 20 %. Dominant species include the brown algae *Sargassum mangroveense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda* sp., and *Caulerpa sertularioides* with isolated small patches of blue green algae (*Schizothrix calcicola*).
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. Two species of the shoreline crab (*Grapsus* sp.), several gastropod snails (*Neritidae*) and two specimens of the polychaete feather duster worm (*Sabellastarte* sp.) recorded.
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and included reef dwelling herbivores (e.g. *Acanthuridae*).
- The marine benthic environment associated with the FD 1 assessment site contains small amounts anthropogenic derived garbage, a physical clean-up of the site is recommended.
- There were no threatened, endangered or endemic hard coral species, other invertebrate – vertebrate species located during the assessment within FD 1 site assessment.
- There were no marine mammals and/or marine reptiles (turtles) recorded within the FD 1 site.
- The benthic substrate associated with the FD 1 site (direct area of impact) due to its environmental characteristics and past significant coastal foreshore and intertidal reclamation activities, the benthic habitat within this area can be considered to have a very low ecological habitat and value.

3.3 Marine Baseline Site Description and Result – Indirect Area of Influence (FD 2) – WAM project site.

FD 2 assessment site includes the intertidal and subtidal (including the start of the lagoon) reef systems directly adjacent to and surrounding the project FD 1 assessment site which is located on the intertidal reef flat directly adjacent (east) to and extends along the entire existing seawall (Figure 5). The assessment was undertaken during high tide (free dive), has an approximate length of 115 m, a width of 104 m, and had a water depth throughout site during the assessment of between 0.75 (intertidal) and 3.5 m (lagoon). The FD 2 assessment site remains underwater during periods of low water.

The north western boundary (7°05'13.05"N 171°22'17.13"E) extends approximately 60 m directly north of the concrete seawall opposite the school, west of the WAM seawall and extends east (7°05'10.63"N 171°22'20.87"E), approximately 110 m due north of the foreshore associated with the MIR. FD 2 sites total assessed area is 438 m².

Figure 5: FD 2 assessment site showing key abiotic and biotic resources recorded during the marine benthic assessment.



A lagoon intertidal and subtidal coral reef ecosystem and associated benthic resources are located opposite the existing WAM seawall. The marine benthic abiotic habitat and biotic resources throughout the FD 2 area reflects a functioning marine ecosystem that has adapted to past and current physical reclamation (minor) and secondary impacts (e.g. sedimentation) resulting from adjacent reclamation activities (inshore and adjacent to FD 2) and heavy subsistence resource extraction (fishing, reef gleaning etc.) undertaken throughout this site. The original lagoon foreshore, beach, beach rock, intertidal reef flat and in parts the subtidal reef flat has been reclaimed within the site assessed and neighboring environments.

FD 2 site is outside of the perceived direct area of impact associated with the projects scope of works. However, secondary impacts associated with elevated suspended sediments possibly created during the project construction may arise and may impact the marine benthic resources throughout these areas, albeit temporary and minor during construction. Benthic marine resources in close proximity to the direct area of impact (e.g. FD 1) are expected to receive impacts higher than those marine reef areas further away from the site.

FD 2 site includes a small (width and length) intertidal reef flat that extends north from the boundary of FD 1 (10 m from the seawall) and extends, 5 and 8 m northwest of the FDI boundary, in the north and south sections respectively within the site (refer Figure 5). The subtidal reef system throughout the site assessed extends north of the intertidal reef system throughout the area, maintains a water depth of between 0.75 and 2.5 m, and terminates at a small distinctive reef edge and slope, which is approximately 2 m in width and 50 m from the seawall before entering the lagoon proper. Water depth at the lagoon and reef edge/slope interfaces averages 3.5 m, with depth of the sea floor decreasing further into the lagoon proper.

The abiotic benthic substrate associated with the FD 2 site is relatively homogenous throughout the area assessed and represents the reef systems located in this region of the lagoon. It is

characterized by calcium carbonate (coral) derived sand, coral rubble, small rocks/boulders and hard reef areas.

The intertidal abiotic reef system throughout the site assessed includes sand and rock/small boulder substrate, with high levels of sand recorded closer to the shoreline, especially adjacent to the MIR (Plate 9 a and b). The sand contributes to the extensive sand beach located to the east (70 m) of the seawall. The subtidal abiotic reef system throughout the site assessed includes an extensive hard reef platform that provides suitable elevated hard substrate that supports an extensive macroalgae ecosystem interspersed with isolated hard corals colonies with higher population numbers towards the lagoon (away from the foreshore) (Plate 9 c and d). Whilst the lagoon's abiotic reef system is dominated by calcium carbonate (hard coral) derived sand interspersed with coral rocks and boulders, which are generally associated with the interface between the reef edge and slope and lagoon (Plate 9 d and e). Calcium carbonate sand dominates the benthic abiotic substrate further north of the site into the lagoon proper.

Water turbidity and resulting water clarity associated with the FD 2 site varies and is directly related to tidal height and localized weather conditions (wind and subsequent waves) persisting at any one time. Anecdotal information acquired during the assessment indicated that during past periods of foreshore construction (e.g. dredging, reclamation) water turbidity levels significantly increased throughout the reef system and adjacent lagoon. Furthermore, it was noted that during periods of inclement weather, sediments perceived from past anthropological reclamation activities are resuspended further increasing turbidity throughout the area during this time.

Plate 9: Representative photos of the benthic substrate (intertidal, subtidal and lagoon) within FD 2 assessment site.





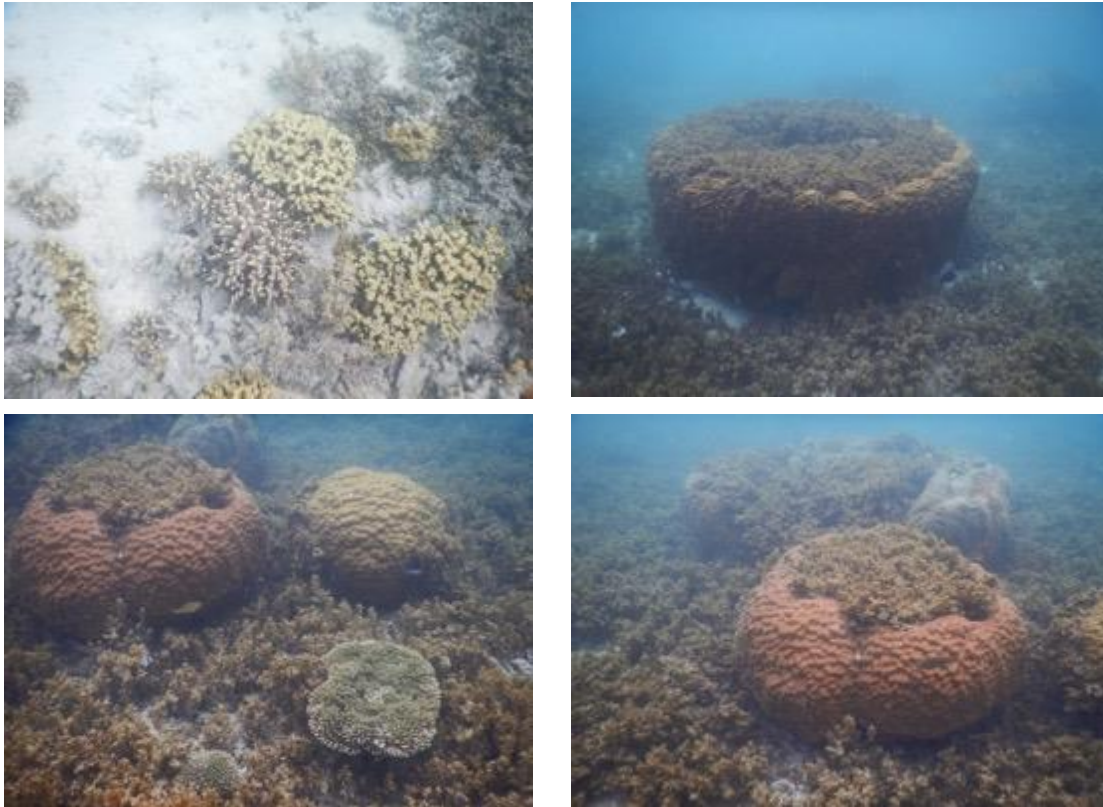
The FD 2 intertidal and subtidal reef flat marine flora and fauna biota was similar throughout the assessment site and reflects a functioning lagoon marine coral reef ecosystem that has been impacted by elevated water turbidity levels, sediment deposition and significant resource extraction for extended periods of time. Impacts on the marine sessile resources were higher in all areas closer to the foreshore and reclamation activities (e.g. WAM seawall) with impacts incrementally decreasing across the reef flat to the lagoon in the north, resulting in increased hard coral and benthic sessile survival, percent coverage, abundance and diversity.

Hard coral parentage coverage was variable throughout the site assessed, however ranged between <5 – 40 percent, with higher percentage live coverage recorded in areas of deeper water and further offshore (towards the lagoon).

Hard coral species diversity is relatively low with species abundance relatively homogenous throughout the site assessed. Hard coral species were predominantly *Porities* sp., *Pocillopora* sp., *Acropora* sp., *Monitipora* sp., *Favia* sp., and *Leptoria* sp. Hard coral morphological form (size, structure) was also homogenous throughout the site assessed reflecting the ecosystem parameters within the area. Hard coral small to large, massive boulder corals (*Porities* sp., *Leptoria* sp. and *Favia* sp.), digitate (*Porities* sp. and *Pocillopora* sp.), and branching (*Acropora* sp. and *Pocillopora* sp., *Monitipora* sp.,) forms were the dominate morphological form located throughout the assessed area (Plate 10). The site possesses a number of large *Porities* sp., colonies “bommies” that recorded circumferences of over 1.5 m.

Plate 10: Representative photos of the hard coral colonies recorded within FD 2 assessment site.



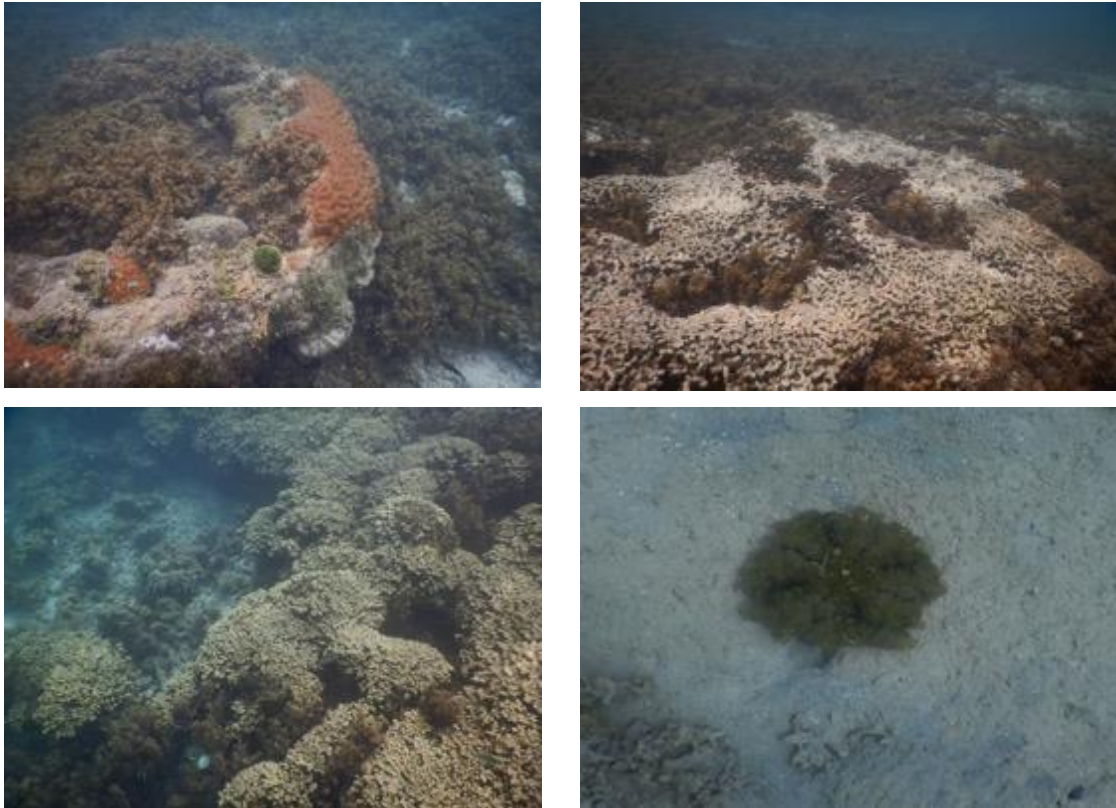


Evidence was recorded of hard coral colony damage (“stress”) throughout the site assessed due predominately to sediment deposition impacting and, in some cases, smothering individual hard corals. In particular, large *Porities* sp., coral heads “bommies” (Plate 11 a) and digitate hard coral colonies were recorded to have significant impacts. The latter showed signs of significant coral stress (loss of coral pigment – bleaching) on the surface of all colonies possibly indicating thermal limit to the height this coral can grow on this reef system (Plate 11 b and c).

Evidence of low level hard coral recruitment was recorded within the intertidal and subtidal reef flat areas throughout the site, with slightly higher levels of recruitment recorded in the north and north-western areas of the site (further away from the shoreline). The dominant hard coral species recruits were *Porities* sp., *Pocillopora* sp., *Acropora* sp., all in similarly low abundance. Thus, providing direct evidence of natural hard coral recruitment remains active within this reef system.

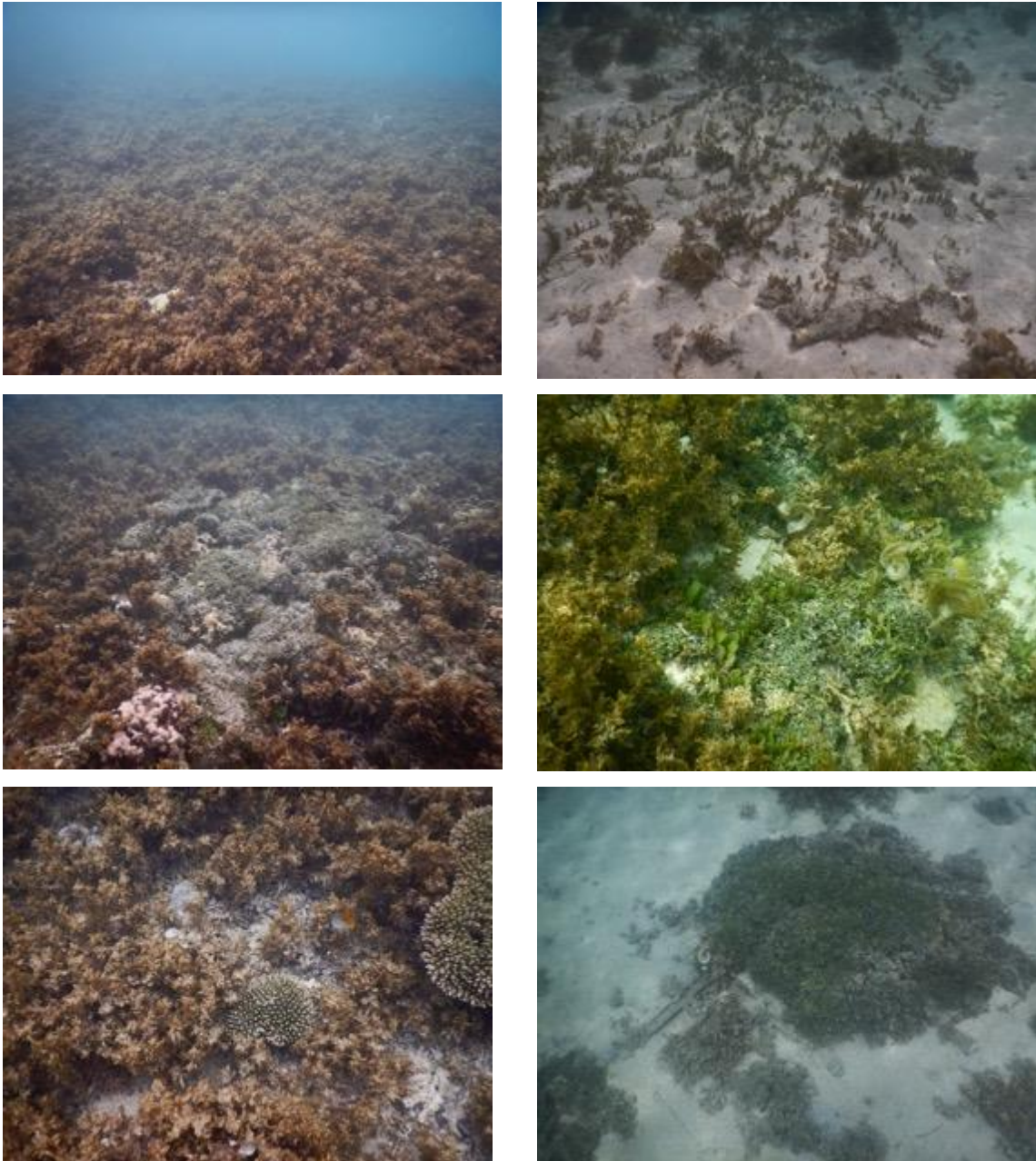
There were no soft coral colonies and/or individuals located within the assessment site, however one individual specimen of the upside-down jelly fish *Cassiopea* sp. was recorded within the sand substrate adjacent to the northern end of the seawall, outside of the direct area of impact (Plate 11 d). There was no hard coral disease (e.g. bacteria or virus), crown of thorn starfish (*Acanthaster planci*) nor the coral eating predator gastropod snail *Drupella* sp. recorded.

Plate 11: Representative photos of hard coral stress (a, b and c) and the upside down jelly fish *Cassiopea* sp. within FD 2 assessment site.



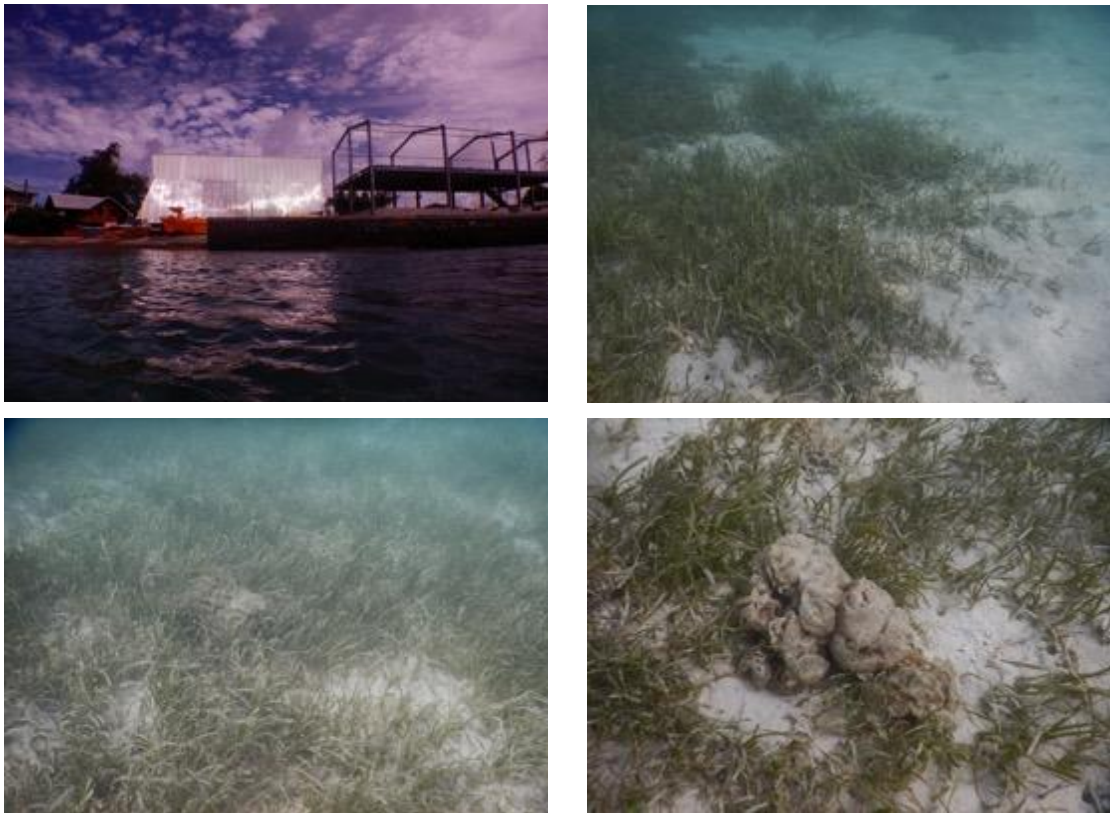
Healthy and variable benthic percentage coverage of macroalgae was recorded throughout the assessment area. Percentage coverage was significant and ranged between <5% and 90%, with higher percentage coverage recorded within the subtidal reef areas associated with the elevated hard reef substrate (Plate 12). The dominant macroalgae species in order of abundance included, *Sargassum mangarevense*, *Padina boryana*, *Dictyota bartayresina*, *Halimeda* sp., and *Caulerpa sertularioides*. Isolated small patches and mats of the cyanobacteria (blue green algae) *Schizothrix calcicola* (< 5 % coverage) were recorded associated with the areas in close proximity to the foreshore (intertidal area) adjacent to the MIR.

Plate 12: Representative photos of the marine macroalgae recorded within FD 2 assessment site.



One small isolated patch of sea grass (*Cymodocea rotunda*) was recorded within the subtidal reef area (7°05'11.69"N 171°22'19.91"E) approximately 25 m (Plate 13) from the south eastern of the WAM seawall. The seagrass patch covered an area of approximately 20 m² and showed signs of stress due to high sedimentation and possibly elevated sea water temperature. The seagrass patch is located well outside the perceived direct area of impact from the project's scope of works.

Plate 13: Representative photos of the marine seagrass recorded within FD 2 assessment site.



There was a paucity of crustacean's recorded throughout the site during the assessment, however a healthy population of the pistol shrimp (*Alpheus* sp.) and goby (*Amblyeleotris* sp.) burrows were located (Plate 14 a). Similarly, a very low sedentary invertebrate population density and species diversity were recorded throughout the assessment area. Only one species of sea cucumber (*Bohadschia vitiensis*) was recorded in low population numbers (Plate 14 b) and several individual specimens of the polychaete feather duster worm (*Sabellastarte* sp.) were recorded attached to the substrate (Plate 14 c). There were no giant clams or other mollusks located throughout the area.

Similarly, finfish population numbers and species diversity were very low during the assessment. The absence of fish and invertebrates during the survey may be attributed to the time of the assessment (day light hours), tidal height restricting habitat availability and fishing pressure. The only finfish recorded were several juvenile herbivores (e.g. *Acanthuridae*, *Scaridae*) and reef dwelling plankitovores (e.g. *Pomocanthidae*) (Plate 14 d).

A population of small marine mussels (dark brown to black) were recorded associated with the WAM concrete ramp (Plate 15). Significant percent coverage was recorded (up to 50%), forming dense beds securely attached to the substrate, are tear drop in shape and were recorded less than 1 centimeter in length. The mussel was not recorded in any other areas assessed nor along the shoreline (east and west) well outside the assessment areas. Similarly, it is not reported in the literature associated with marine mollusks or mussels of the RMI or neighbouring nations. The species of mussel is unknown, however it may be an introduced species, possible invasive and may possibly be related to similar Asian mussels of the genus *Arcuatula* sp. Discussions were

undertaken with Marine Island Marine Resource Authority (MIMRA) on possible identification, at the writing of this report clarification of this issue has yet to be resolved.

Plate 14: Photos of marine invertebrates and finfish recorded during the marine benthic assessment associated with FD 2 reef site.

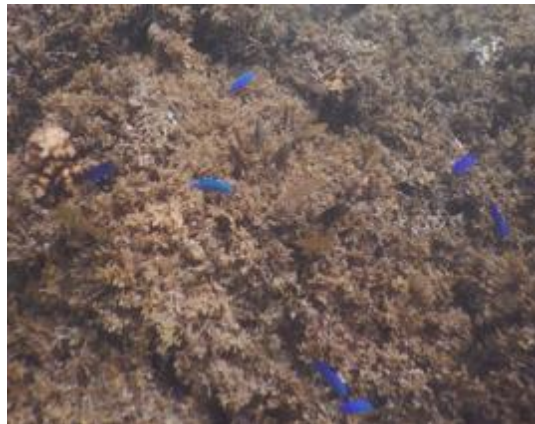
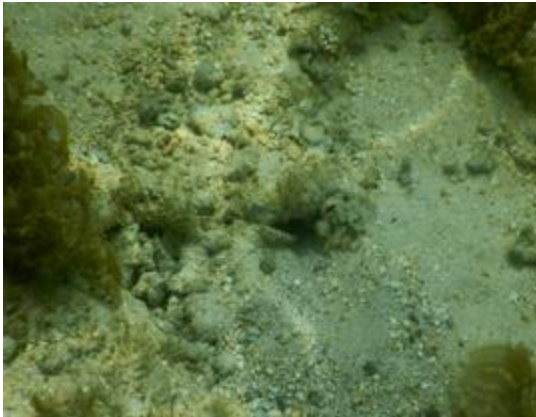


Plate 15: Examples of the small marine mussel recorded within the FD 2 reef site.



The marine benthic environment associated with the FD 2 site contained only small amounts anthropogenic derived waste material (e.g. used air conditioner) and garbage originating predominately from land sources (Plate 16). It is recommended that all anthropogenic items be collected and removed from the site.

Plate 16: Examples of anthropogenic waste material recorded within the FD 2 reef site.



3.3.2 Key Findings of the FD 2 Marine Assessment

The key findings of the shallow water marine benthic assessment associated with the FD 2 site (indirect area of impact – influence) of the WAM seawall upgrade project include:

- FD 2 site includes the intertidal, subtidal and lagoon reef systems adjacent to the FD 1 site and WAM sea wall and covers an assessment area of 438 m².
- The intertidal, subtidal and lagoon seabed substrate profile associated with the FD 2 site is relatively homogenous and similar throughout the area. The substrate is characterized by a bottom layer of calcium carbonate coarse sand, gravel, rocks and boulders derived from coral reef origins that rest on a hard subsurface coralline platform that supports an elevated hard substrate (old reef) throughout the subtidal reef areas assessed.
- The entire assessment site has been significantly altered with significant past reclamation activities undertaken throughout the intertidal reef areas adjacent to the FD 2 site. Physical impacts resulting from past reclamation activities directly impact the shallow intertidal regions of the FD 2 site, whilst subtidal and lagoon benthic substrate show clear evidence of impacts from increased turbidity (sedimentation) due to these past activities.
- Hard coral percent coverage was variable, ranging between <5 and 40 % with higher percent live coverage recorded within deeper subtidal areas of the site including the reef edge and lagoon interface.
- Hard coral and morphological form included small to large, massive boulder corals (*Porities* sp., *Leptoria* sp. and *Favia* sp.), digitate (*Porities* sp. and *Pocillopora* sp.), and branching (*Acropora* sp. and *Pocillopora* sp., *Monitipora* sp.)
- Hard corals showed significant signs of environmental stress (sedimentation and possible temperature) and evidence of hard coral recruitment was recorded, albeit in low levels.
- All hard corals are common species within Majuro lagoon, Marshal islands and regionally, and are adaptive to marine conditions located within this site. Their presence is a direct relationship to availability of a hard surface to colonize with suitable marine water conditions.

- No soft corals were recorded, however one specimen of the upside-down jelly fish *Cassiopea* sp. was recorded.
- No Crown of Thorns (COTS), coral eating gastropod snails (e.g. *Drupella* sp.) or coral disease were recorded during the assessment.
- Healthy and variable benthic percentage coverage of marine macroalgae was recorded. Percent coverage was significant ranging between 5 and 90 % benthic coverage and moderately high level of species diversity was recorded. Dominant species include the brown algae *Sargassum mangroveense*, *Padina boryana*, *Dictyota bartayresina*, the green algae *Halimeda* sp., and *Caulerpa sertularioides* with isolated small patch of blue green algae (*Schizothrix calcicola*).
- One small, isolated patch of sea grass (*Cymodocea rotunda*) was recorded approximately 25 m east of the southeastern end of the WAM sea wall (well outside the direct area of impact of the project) covering an area of 20 m². The seagrass showed signs of stress due to high sedimentation and possibly elevated water temperatures.
- There was a paucity of benthic sessile and sedimentary invertebrate fauna resource species diversity and population densities. A healthy albeit small number of pistol shrimp (*Alpheus* sp.) and goby (*Amblyeleotris* sp.) burrows were located, several specimens of sea cucumber (*Bohadschia vitiensis*) and polychaete feather duster worm (*Sabellastarte* sp.).
- Finfish population numbers and species diversity were very low. Species that were present were juveniles and include reef dwelling herbivores (e.g. *Acanthuridae*, *Scaridae*) and reef dwelling planktivores (e.g. *Pomocanthidae*).
- A small marine mussel was in high population densities (up to 50%) attached to the concrete substrate of the WAM ramp. It was located nowhere else within the site assessed nor neighboring shallow water environments. This mussel species is unknown and possibly is an introduced species. Further identification is required.
- The marine benthic environment associated with the FD 2 assessment site contains small amounts anthropogenic derived garbage, a physical cleanup is recommended.
- There were no threatened, endangered or endemic hard coral species, other invertebrate – vertebrate species located during the assessment within FD 2 site assessment.
- There were no marine mammals and/or marine reptiles (turtles) recorded within the FD 2 site.
- The benthic substrate associated with the FD 2 site (indirect area of impact) due to its environmental characteristics and past impacts (sedimentation) from significant coastal foreshore and intertidal reclamation activities, the benthic habitat within this area can be considered to have a low ecological habitat and value. The species recorded are found throughout the Majuro atoll and nation.

3.5 Key Marine Environmental Impacts from the project

The proposed scope of works to replace the existing sea wall has a small environmental footprint both above and below the water level. Impacts on the marine environment and coastal waters within and around the existing seawall are expected to be very minor, localized to the immediate footprint of the works, and easily managed through standard engineering good practice mitigation measures.

There are no threats to the area's marine and coastal biodiversity associated with the project. It is expected that there will be no impacts to the areas hard coral and/or seagrass colonies as none are recorded within the direct area of impact. As such, the potential impacts of the works

on the marine environment are considered to be minor, temporary, easily mitigatable and overall insignificant.

The replacement of the WAM seawall does not impact any marine, coastal or terrestrial conservation and/or protected area, sites of cultural, customary or heritage significance nor any national or international marine, freshwater or terrestrial endangered or protected species. Thus, no impacts on critical habitats are associated with this project. Based on the project's scope of works all hard coral colonies and the sea grass "patch" are located outside of the direct areas of physical impact and as such is not expected to be impacted by the project.

The potential impacts of the project on the marine biological environment include:

- There is potential for localized and temporary increased suspended sediment levels in the marine environment around the seawall as a result of the projects scope of works. Such impacts are expected to be very minor due to i) the low habitat value of the benthic environment especially within the direct area of impact, ii) prevailing tidal current persisting at the site, iii) site existing sedimentation and siltation conditions and iv) the limited physical construction activities proposed.
- The tidal current and waves associated with this site will aid in the redistribution of fine sediment quickly.
- Spillage/leakage of oil and other pollutants into the marine environment from plants and equipment used during the construction phase of the project.

As such the benthic habitat and ecosystem associated with the project sites may be classified as an extensively modified and highly disturbed benthic foreshore and marine habitat of low ecological value. The proposed scope of works as such will have a negligible potential impact on these habitats, their resources and is acceptable.

3.5.1 Potential Impact Mitigation Measures

The potential impact of increased suspended sediment levels from the works can be further minimized through implementation of the following mitigation measures during the construction phase of the project:

- Ensure due diligence when operating machinery during all work activities to prevent and manage petrochemical spillage and contamination of the waters associated with all works undertaken to replace the sea wall.
- Consideration of the use of silt curtain/s adjacent and around the full extent of the sea wall position within the intertidal reef flat during all physical construction activities to directly manage and reduce the dispersion of benthic substrate (silt) disturbed during construction.

The contractor will be required to ensure all equipment is properly maintained and to follow all necessary precautions to prevent spillage of petrochemicals into the marine environment. Provided such measures are properly implemented the potential impacts on the marine environment will be insignificant.

The overall potential impact of the works on the marine biological environment is expected to be minor, localized and overall insignificant provided standard mitigation measures associated with good engineering practice as identified above are implemented. Furthermore, due to the nature of potential minor impacts of the scope of works it is recommended that no specific marine monitoring program is required other than close supervision of the works to ensure that the above recommended mitigation measures are implemented and effective throughout the marine construction works. There is no biological justification to relocate any marine resources that may be impacted by the projects scope of works.

As such the benthic habitat and ecosystem associated with the project sites may be classified as a modified and disturbed benthic foreshore and marine habitat of low ecological value. The proposed scope of works as such will have a negligible potential impact on these habitats, its resources and is acceptable.

3.6 Key Biodiversity Status of the WAM Seawall Site Location

The key marine benthic Biodiversity Conservation and Sustainable Natural Resource Management status of WAM seawall site is presented in Table 3. The table has been developed according to the ADB Safeguard Policy Statement Appendix 1 – Safeguards Requirements 1 : Environment, Section 8: Biodiversity Conservation and Sustainability Natural Resource Management Status definitions.

Table 3: A summary of the key marine benthic Biodiversity Conservation and Sustainable Natural Resource Management status for the WAM seawall marine site.

Site Location	Marine Ecology	Impact Summary	Biodiversity Conservation & Sustainable Natural Resource Management Status ⁵³		
			Modified Habitat ⁵⁴	Natural Habitat ⁵⁵	Critical Habitat/Species ⁵⁶
WAM Seawall Site	Sea shoreline – Inner lagoon site –protected within lagoon. Inner lagoon fringing coral reef present. Hard coral present – low diversity & low densities restricted to subtidal reef and lagoon, none within direct area of impact. No mangrove present. One small patch of sea grass outside direct area of impact. Marine coastal environment – full salinity. No rivers or streams – freshwater only during rainfall Limited (paucity of) benthic sessile invertebrate communities. Sand - Silt – coral rubble dominated benthic substrate.	Very minor ecological – resource impacts. No threats to areas marine inshore & coastal biodiversity. No hard corals, seagrass within direct area of impact. No endangered or endemic flora and fauna species present. Very small localized site specific footprint increase in suspended sediment during infrastructure construction. Very minor potential petrochemical spillage during construction.	Yes. Extensive foreshore and inshore coastal rehabilitation and alteration. Expected to continue in the future. Adjacent to significant land fill – reclaimed on intertidal reef flat.	Well outside of seawall site	None Recorded

⁵³ ADB Safeguard Policy Statement (2009) Appendix 1 – Safeguards Requirements 1 : Environment, Section 8: Biodiversity Conservation and Sustainability Natural Resource Management Status.

⁵⁴ Modified Habitat. Where the natural habitat has apparently been altered (SPS, 2009).

⁵⁵ Natural Habitat. Land and water areas where the biological communities are formed largely by native plant and animal species, and where human activity has not essentially modified the area's primary ecological functions (SPS, 2009).

⁵⁶ Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including: (i) habitat required for the survival of critically endangered or endangered species; (ii) areas having special significance for endemic or restricted-range species; (iii) sites that are critical for the survival of migratory species; (iv) areas supporting globally significant concentrations or numbers of individuals of congregatory species; (v) areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and (vi) areas having biodiversity of significant social, economic, or cultural importance to local communities (SPS, 2009).

Site Location	Marine Ecology	Impact Summary	Biodiversity Conservation & Sustainable Natural Resource Management Status ⁵³		
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	Extensive foreshore & intertidal reclamation – alteration. Highly disturbed ecosystem, includes foreshore reclamation. No MPA or other managed areas.	All localized to project footprint. All completely reversible and manageable.			