



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 03-Jan-2017 | Report No: PIDISDSC18176

**BASIC INFORMATION****A. Basic Project Data**

| | | | |
|--|--|--|---|
| Country Marshall Islands | Project ID P160096 | Parent Project ID (if any) | Project Name Pacific Resilience Program - Phase II (P160096) |
| Region EAST ASIA AND PACIFIC | Estimated Appraisal Date Jan 24, 2017 | Estimated Board Date May 11, 2017 | Practice Area (Lead) Environment & Natural Resources |
| Lending Instrument Investment Project Financing | Borrower(s) Ministry of Finance | Implementing Agency Pacific Community | |

Financing (in USD Million)

| Financing Source | Amount |
|---------------------------|--------------|
| IDA Grant | 11.00 |
| Total Project Cost | 11.00 |

Environmental Assessment Category
B-Partial Assessment

Concept Review Decision
Track II-The review did authorize the preparation to continue

Other Decision (as needed)

Type here to enter text

B. Introduction and Context**Country Context**

1. The Pacific Island Countries (PICs) include some of the world's smallest nations located in the world's largest ocean. Economic growth in PICs is low. Although absolute poverty in the region is limited, real per capita income has remained virtually unchanged since the mid-1990s and economic progress tends to be volatile and vulnerable to external shocks. Most PICs economies are largely reliant on agriculture, fisheries, and other natural resources.

2. PICs are among the most physically vulnerable nations in the world. They are highly exposed to adverse effects from climate change and natural hazards (including floods, droughts, tropical cyclones, earthquakes, volcanic eruptions, and tsunamis), which can result in disasters that affect their entire economic, human, and physical environment, and impact their long-term development. Since 1950, natural disasters have affected approximately 9.2 million¹ people in



the Pacific region, causing approximately 10,000 reported deaths. This has cost the PICs around USD4.6 billion (in nominal terms) in associated damage costs (EM-DAT, 2010 and World Bank)².

3. The Republic of the Marshall Islands (RMI) is one of the world's smallest, most isolated and vulnerable nations. The country consists of 29 atolls and 5 isolated islands (24 of which are inhabited) and has a total land mass of just 181 km² set in an ocean area of over 1.9 million km². The population of the RMI is estimated at 53,000 of which close to half are resident in the Capital City of Majuro. The country is vulnerable to occasional typhoons and its 370km coastline renders it particularly susceptible to storm surges, extreme waves and high tides.

4. The proposed project will build on previous World Bank engagement in Disaster Risk Management and Climate Change Adaptation. RMI is part of the Pacific Resilience Program Phase I (PREP Phase I), for an activity which finances the yearly premium for the disaster risk insurance scheme which was originally piloted under Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI).

Sectoral and Institutional Context

5. RMI is exposed to a variety of disaster risks, including recurrent droughts, coastal hazards (e.g. wave-induced erosion and flooding linked to king tides and storm surge), tropical storms, and, to a lesser extent, typhoons. The Average Annual Loss related to typhoons and tsunami is 3.1% of GDP (2.8% is attributed to typhoons and 0.3% to tsunami)³.

6. Climate change could lead to more damaging storm surges and coastal inundation, increased intensity of tropical storms, and more extreme events such as droughts and flooding for Marshall Islands. Climate change is also projected to result in progressive changes such as sea level rise which will accelerate coastal erosion, increase coastal inundation, and increase salinization of freshwater resources. Coral reefs, which offer a natural protection of the shorelines, will be affected by ocean acidification and higher temperature. Experience in RMI shows that coral reefs has already being damaged by human waste, garbage, and debris is being washed onto the reefs during the ebb tide. A state of emergency was declared on February 3, 2016 due to the prolonged drought currently affecting the country. El Nino events currently contribute towards recurrent droughts in RMI but, at this stage, the relationship between climate change and El Nino events is unclear.

7. The natural hazard risks are particularly high for the islands Majuro and Ebeye due to their large populations and extensive public infrastructure. Majuro has a population of about 27,000 and Ebeye some 12,000 people. This constitutes 74% of the total population of RMI. The impacts of coastal erosion and inundations of coastal areas are evident along the shorelines of both islands. The shoreline erosion has left public infrastructure (e.g. sections of the roads on both the ocean and lagoon side of the two atolls, and the hospital in Majuro) highly exposed and vulnerable. Other vulnerable infrastructure includes the water reservoir close to the airport in Majuro, the airstrip, and private houses. A number of schools are reportedly highly affected by erosion. The need for coastal protection around Ebeye seems particularly critical because of its small size, high population density,⁴ the exposure of established infrastructure to wave action, and the settlement of people immediately adjacent to the coastline without the option of retreating due to constrained land availability.



8. While disasters impact whole societies when they strike, the poor and vulnerable are hit the hardest. This was the case following recent disaster events in the Pacific (e.g. in the aftermath of tropical storm Nangka in July 2015, poorer people were impacted to a greater degree as they were less likely to have insurance, cash reserves, and alternative income sources that provide a means for them to recover quickly).

9. Recognizing these challenges, the Government has developed national strategic priorities for disaster management and climate adaptation which are spelled out in the Joint National Action Plan on Climate Change Adaptation Disaster Risk Management (JNAP). The five JNAP priorities for RMI relevant to this project are:

- a. Improved governance for climate change adaptation and disaster risk management (mainstreaming, decision making, organizational and institutional policy frameworks).
- b. Enhanced technical knowledge base, information, education and understanding of climate change adaptation and effective disaster risk management.
- c. Analyses and assessments of vulnerability to climate change impacts and disaster risks.
- d. Enhanced community preparedness and resilience to all impacts of disasters.
- e. Strong partnerships, cooperation and collaboration within government agencies and with civil societies, non-government organizations, and the private sector.

10. Many donor partners are currently supporting RMI in addressing disaster and climate change issues (e.g. ADB – upgrading the water supply system and sewerage system in Ebeye; Japan – water and waste management program for the Majuro Water & Sewage Company; Thailand, People’s Republic of China, India, Australia, and the USA – implementation support for the RMI drought response plan; Taiwan, China – agriculture and food security project; EU – NDMO support to finalize the JNAP Strategic framework and response to the drought; Finland through SPREP – upgrading climate stations and meteorological equipment; and SPC – technical assistance in emergency preparedness and water resources management). Some prospective projects include UNDP (integrated water resource management in Majuro and outer islands funded under the GCF), and Italy through SPREP (strengthening the building code and establishing a resource center through which all disaster and climate policy and project documents can be shared).

11. Based on discussions with the government, the proposed project is designed to fill a clear gap by concentrating on early warning and preparedness for communities, shoreline protection in vulnerable areas, financial support for disaster response, and institutional strengthening and capacity building within all of these elements.

Relationship to CPF

12. The project is consistent with the RMI Country Partnership Strategy (FY13-FY16, February 19, 2013). The CPS highlighted that the World Bank would: (i) play a greater role in addressing the substantial threats that RMI faces from natural hazards, the effects of climate change and sea-level rise as the partnership deepens; (ii) look for opportunities to strengthen the disaster risk management capacity of RMI; and (iii) help to build resilience to external shocks, including natural and man-made disasters. Strengthening physical resilience of Atoll islands through for instance coastal defense structure and ecosystem based approaches has also be considered as a priority within the Systematic Country Diagnostic of 8 PCs including RMI (January 16, 2016).

13. The project is fully aligned with regional strategies. It addresses key priorities of the Pacific Regional Framework for Action on Disaster Risk Management, 2005–2015 and its proposed successor, the Strategy for Climate and Disaster



Resilient Development in the Pacific, as well as the Pacific Islands Meteorological Strategy 2012–2021 on ‘Improved end-to-end Multi-Hazard Early Warning Systems’.

14. The project is in line with World Bank planning and policy documents, including the World Bank Engagement Note for Disaster and Climate Resilient Development Programming in the Pacific Islands Region (March 2013), the Policy and Practice Note (PPN) “Acting Today for Tomorrow” (2012) and the draft Background Paper on Climate Change for the Pacific Possible Strategic Report (in preparation, May 2016). The project will be a practical mean to implement these policy papers, which have been developed in close collaboration with donors and regional organizations and have been very well received.

15. In addition, this project lies at the heart of poverty reduction and development by: (i) serving the most vulnerable section of the population by supporting the provision of early warning mechanisms and improving disaster risk awareness; and (ii) supporting risk-informed planning and investments to reduce disaster impacts on societies, managing residual risks and uncertainties; and, (iii) strengthening the capacity of people and institutions to prepare for and respond to disasters.

C. Proposed Development Objective(s)

The project development objective is to strengthen early warning systems, climate resilient investments in shoreline protection, and financial protection against natural hazards of RMI.

Key Results (From PCN)

16. It is proposed that success of the project be monitored through the following indicators (to be supported with quantitative metrics):

- (i) Increased coverage of warning messages to the population for selected hazards;
- (ii) Reduction in risks to people and public infrastructure exposed to coastal hazards and the effects of climate change

D. Concept Description

Component 1: Institutional strengthening, early warning and preparedness

17. This component will strengthen the effectiveness of the Marshall Islands institutions responsible for climate and disaster resilience (e.g. for the implementation of the JNAP), as well as disaster early warning and preparedness.

18. The JNAP has been a great step forward for a better integration of disaster risk management and climate change adaptation. However, governance mechanisms remain to be clarified, including the roles and responsibilities of the National Climate Change Committee chaired by the Office of Environmental Planning and Policy Coordination (OEPPC), and the National Disaster Committee chaired by the Office of the Chief Secretary. Major issues to be addressed include the need to accelerate the implementation of the JNAP priorities and strengthen evidence-based decision-making capacity that promotes disaster and climate resilient investment across sectors and at the community level.



19. While the detection, forecasting and warning of the natural hazards are relatively well established in RMI with NOAA support, the dissemination of warnings to the population, including last mile communication, is less well established. The development of emergency preparedness and response mechanisms, and their implementation on the ground, particularly at community level, still needs to be strengthened. The proposed project may include technical assistance activities to support institutional strengthening and capacity building in the NDMO, develop awareness campaigns to improve public support for emergency preparedness, develop and testing of standard operating procedures, and improve communication networks, particularly to and within the remote islands. Priority, small scale investments such as upgrading observation infrastructure (e.g. rain gauges), particularly at remote islands, may also be considered.⁵

Component 2: Strengthening coastal resilience

20. This component will strengthen coastal planning mechanisms, build the capacity to understand current and future risks, help the government prioritize future investments and enable targeted investments in coastal protection.

21. The component will finance the development of a Coastal Vulnerability Assessment and Management Plan supervised by the Environmental Protection Agency (EPA) and the Coastal Management Advisory Committee (CMAC). This activity will be started during project preparation. The plan will help to: (i) understand exposure and likely impact of extreme events and sea level rise; (ii) assess the current state of ecosystem services of reefs and lagoons, (iii) prioritize structural and soft structural solutions including ecosystem based approaches; and (iv) provide recommendations for improved building code requirements and land use planning, including floor levels and setbacks. Priority areas would include Majuro, particularly the DUD (Darrit-Uliga-Delap) urban area, and Kwajalein, particularly the Ebeye urban area. This work would contribute to the preparation of an urban or local development plan for Ebeye.

22. As a result of the strategic assessment undertaken under the Coastal Vulnerability Assessment and Management Plan, areas for coastal protection will be identified and prioritized. Under this component, some protection areas from the Plan will be funded. Examples of investments could include:

- Coastal protection around the Ebeye urban area;
- Coastal protection in the Majuro DUD urban area in particular at risk sites (e.g. gravesites next to the shoreline on Darrit);
- Landscaping, shade and screen tree planting, etc., at the coast works sites, thereby adding public recreational enhancements;
- Ecosystem-based approaches, and
- Raising coastal berms in Ebeye and Majuro (i.e. raising the shoreline crest to reduce flooding, using vegetated earth, concrete barriers, installing gabions, or a combination of approaches);

23. Although rehabilitation of the Ebeye causeway has been put forward by the government as a priority, such works will be technically complex and will potentially require significant finance. Approximately 30% of the 3.1 mile causeway length would require extensive repair on the lagoon side and significant strengthening on the ocean side. A feasibility analysis will be undertaken to see if the benefits of access to new land, services, and opportunities for the Ebeye population, outweigh the cost of the rehabilitation and environmental impacts. This analysis could be included as part of a broader urban development plan for Ebeye that will be funded by the project.



24. An assessment of sustainable sources of aggregates for coastal works will be carried out during the preparation of the project. The assessment will include: (i) quantification of the types and quantities and aggregate required; (ii) identification of potential sources (e.g. lagoon sand, reef rock, terrestrial sources of sand and rock, imported material); and (iii) costs and environmental, and social assessment of effects from sourcing, processing and transporting sand and aggregates.

Component 3: Contingency Emergency Response

25. RMI will be invited to include a Contingency Emergency Response Component (CERC) within the Project, which would be triggered following the declaration of a national disaster. The CERC would complement the PREP Phase I in RMI which finances the yearly premium for the disaster risk insurance scheme which was originally piloted under the PCRAFI.

26. The CERC will strengthen RMI's preparedness and capacity to immediately respond to low and medium scale disasters which would not trigger a payout under the disaster risk insurance scheme financed under Phase I of the PREP and/or to disasters that are not covered by the insurance scheme (e.g. drought and flooding).

27. Funds may be allocated directly to the CERC under this component, or the CERC may be used as a financial contingency instrument whereby funds are reassigned from other components in case of a major disaster. The CERC provides a mechanism to: (i) quickly disburse funds to meet the immediate needs of RMI to finance critical imports following the proclamation of a state of emergency; or (ii) finance emergency recovery or reconstruction works and associated services.

Component 4: Project management

28. This component will strengthen the Government's capacity for project management, coordination, monitoring, evaluation and reporting. This component will provide support for procurement, financial management, contract and project management, and oversight of social and environmental safeguards.

Tentative Project Cost and Financing.

29. The cost is estimated to be US\$11 million. Financing would be provided by the World Bank, through a national and regional IDA Grant. This is a preliminary estimate and is subject to change.

30. Regional IDA could be leveraged as the project will strengthen a regional early warning system under Component 1, with harmonized national and local components with data exchanges and analysis at all levels, including systems that draw on common operating and maintenance schemes. GEF and/or GCF funding support could be sought.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Component 1 may involve works such as multi-purpose shelters in outer islands. The location of these shelters will be developed in consultation with the beneficiaries and land owners. Land acquisition methods are not yet known but could be voluntary donation on communally owned land where all land owners are beneficiaries or on a lease or 'willing buyer / willing seller' arrangement.



Component 2 involves the preparation of land use planning documents that are likely to be focused on urban land in the two main centres – Ebeye (Kwajalein) and Darrit-Uliga-Delap (Majuro) the geographic extent will be confirmed during project implementation). This will influence future land use in these areas, particularly in areas that will be affected by coastal hazards and sea level rise.

Component 2 involves the funding of coastal protection works. This may be enhancements to natural features such as sand banks and mangroves, or engineered solutions (walls, gabions etc.). The location of the works is uncertain, with works being prioritized and selected for funding under a Vulnerability Assessment and Management Plan, but urban areas of Ebeye (Kwajalein) and Darrit-Uliga-Delap (Majuro) are likely to be targeted.

The project is a Category B. The impacts from coastal works and infrastructure investments will be localized and few impacts will be irreversible. Significant risks relating to sourcing and transportation of aggregates, and investments that may affect property and access to resources will require detailed impact assessment and mitigation. Any land use plans or other planning documents prepared under the project will focus on adaptation to climate change impacts and coastal hazards with the intention of improving social and environmental outcomes from land use. Resettlement or planned migration will not be part of the Terms of Reference for this work.

B. Borrower's Institutional Capacity for Safeguard Policies

The Borrower is responsible for preparing the safeguards documentation. The implementing agency does not have safeguards specialists and therefore they will engage suitably qualified consultants to prepare the documentation in time for appraisal. During project implementation the implementing agency will have responsibilities for ensuring safeguards implementation by the Technical Advisory consultants and contractors implementing coastal protection works. The implementing agency and the implementation partners will require capacity building in this area, which will include training of staff and the recruitment of a part time safeguards advisor.

C. Environmental and Social Safeguards Specialists on the Team

Penelope Ruth Ferguson, Ross James Butler

D. Policies that might apply

| Safeguard Policies | Triggered? | Explanation (Optional) |
|-------------------------------------|------------|--|
| Environmental Assessment OP/BP 4.01 | Yes | Land use planning documents will be prepared that will influence future land use. Investments in coastal protection will be made, which may have impacts on coastal processes, ecosystems and access to land and resources. The source of aggregates will be assessed during project implementation. Because the exact location of investments is unknown the nature and scale of potential impacts cannot be assessed. An Environmental and Social Management Framework will be prepared, which will include screening |



| | | |
|--|-----|---|
| | | <p>mechanisms for subprojects, and direct the implementing agency to prepare and implement ESIA or EMP for subprojects as necessary. The ESMF will be clear that an Environmental and Social Impact Assessment will form part of any assessment of aggregate sources.</p> <p>The ESMF will cover the requirements for environmental and social screening for the use of funds under Component 3.</p> |
| Natural Habitats OP/BP 4.04 | Yes | <p>Coastal protection works, including engineered solutions and enhancements to natural systems, have the potential to impact on natural habitats in the marine and foreshore. Therefore the policy is triggered. The potential impacts on natural habitats will be considered in the preparation and implementation of the ESMF.</p> |
| Forests OP/BP 4.36 | Yes | <p>The focus of coastal protection works will be to avoid, protect or enhance mangroves. The way that mangroves are used and managed may change as a result of land use plans or coastal protection works, and therefore the policy is triggered. The potential impacts on mangrove use and management will be considered in the preparation and implementation of the ESMF.</p> |
| Pest Management OP 4.09 | No | <p>The proposed project will not the purchase of pesticides and pesticide equipment, nor will lead to increase usage of pesticides.</p> |
| Physical Cultural Resources OP/BP 4.11 | Yes | <p>The location, nature and scale of works will not be known at the time of appraisal and the location of PCR will not be known. Graves are located along the coastline of Ebeye and may be affected by coastal protection works. Therefore the policy is triggered. PCR may be located during the development of subprojects or uncovered during the earthworks. The ESMF will include screening questions and mitigation measures for PCR for sub-projects and will include a chance find procedures.</p> |
| Indigenous Peoples OP/BP 4.10 | No | <p>RMI's population is relatively homogenous. The policy is not triggered because there are no social groups that meet the characteristics of the policy.</p> |
| Involuntary Resettlement OP/BP 4.12 | Yes | <p>The location, nature and scale of works will not be known at the time of appraisal and the land ownership aspects will not be known. Land acquisition will be negotiated wherever possible, either via voluntary land donation where communal</p> |



land owners are also the beneficiaries, or through lease or willing buyer / willing seller arrangements. In some instances this may not be possible, such as coastal protection works, and involuntary land acquisition may be required. A Resettlement Policy Framework will be prepared to document the process for acquiring land involuntarily and describe in detail the processes for other forms of acquiring land (Voluntary Land Donation Protocol, willing buyer / willing seller) including the principles and procedures to verify and document their appropriateness in a given investment or activity supported by the project. Component 2 will support a Coastal Vulnerability Assessment and areas for coastal protection will be identified, prioritized and plans funded. A process framework for restriction of access to natural resources will be prepared if required.

| | | |
|--|----|--|
| Safety of Dams OP/BP 4.37 | No | The project does not involve the construction of a new dam nor dependent on existing dam, or a dam under construction. |
| Projects on International Waterways OP/BP 7.50 | No | There are no international waterways in the project area. |
| Projects in Disputed Areas OP/BP 7.60 | No | There are no disputed areas in the project area. |

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Jan 27, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The ESMF and RPF will be prepared by the borrower before January 27, 2016.

CONTACT POINT

World Bank

Denis Jean-Jacques Jordy, Simone Lillian Esler
Senior Environmental Specialist



Borrower/Client/Recipient

Ministry of Finance
Ms. Maybelline Andon Bing
Secretary
mayabing@hotmail.com

Implementing Agencies

Pacific Community
Michael Petterson
Director, Geosciences Division
michaelp@spc.int

FOR MORE INFORMATION CONTACT

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Web: <http://www.worldbank.org/infoshop>

APPROVAL

| | |
|----------------------|--|
| Task Team Leader(s): | Denis Jean-Jacques Jordy, Simone Lillian Esler |
|----------------------|--|

Approved By

| | | |
|---------------------------|-------------------|-------------|
| Safeguards Advisor: | Peter Leonard | 06-Dec-2016 |
| Practice Manager/Manager: | Iain G. Shuker | 28-Dec-2016 |
| Country Director: | James A. Reichert | 03-Jan-2017 |