



Additional Financing Appraisal Environmental and
Social Review Summary
Appraisal Stage
(AF ESRS Appraisal Stage)

Date Prepared/Updated: 03/12/2024 | Report No: ESRSAFA702



I. BASIC INFORMATION

A. Basic Project Data

Country	Region	Borrower(s)	Implementing Agency(ies)
Tuvalu	EAST ASIA AND PACIFIC		
Project ID	Project Name		
P181595	Additional Financing For Maritime Investment In Climate Resilient Operations Ii		
Parent Project ID (if any)	Parent Project Name		
P177100	Maritime Investment in Climate Resilient Operations II		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	3/25/2024	4/30/2024
Estimated Decision Review Date	Total Project Cost		
3/21/2024	40,000,000		

Public Disclosure

Proposed Development Objective

To improve the climate resilience and safety of maritime sector in Tuvalu, and in case of an eligible crisis or emergency, respond promptly and effectively to it.

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

Yes

C. Summary Description of Proposed Project Activities

The development objective (PDO) of Maritime Investments in Climate Resilient Operations II (MICRO2) is to improve the climate resilience of maritime sector in Tuvalu and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

MICRO2 is part of the Pacific Climate Resilient Transport Program (PCRTP) Series of Projects (SOP), which has four broad pillars that focus on increasing resilience in the transport sector through: (i) utilizing spatial and sector planning



tools; (ii) investing in climate resilient infrastructure; (iii) strengthening the enabling environment; and (iv) supporting post-disaster recovery. The value of the programmatic approach is that it will support the systematic improvement of resilience across the countries included within the program to address commonly shared issues. In addition, the program offers a multi-pronged approach to support Tuvalu by considering risks in a wholistic manner, through the integration of resilient maritime infrastructure interventions into decision-making and implementation.

The PDO is to be achieved through the following four components:

Component 1: Sectoral and Spatial Planning Tools (US\$1.50 million). This Component involves technical assistance for sectoral and spatial planning tools that will improve the way that climate change is addressed in Tuvalu’s maritime sector to enable policymakers to make informed decisions based on the most accurate and up-to-date information available. This component consists of:

Component 1.1: Development of spatial planning and risk-based tools (GIS mapping) for infrastructure investments to improve connectivity and climate resilience. Building on the ongoing activities for Nanumanga under MICRO, this component activity will be expanded to include Nukufetau, Nukulaelae, Funafuti, Niutao, and Niulakita. Similarly, this activity will collect and record the location and needs of vulnerable populations to improve preparedness and post-disaster response to climate hazards for persons with disabilities and the elderly in the outer islands.

Component 1.2: A health outreach campaign to improve community resilience through the provision of support to the community to understand and manage the issues associated with ensuring a sustainable food supply. A pilot health outreach campaign is currently being implemented in Nanumanga. This component will expand the health outreach campaign to Nukufetau and Nanumea. Activities financed under this component include community health campaign for the communities in Nanumea and Nukufetau.

Component 1.3: Technical assistance on maritime sector planning. (i) Climate-informed maritime asset management system: Provision of hardware, software and ancillary tools to establish and maintain a climate-informed maritime asset management system to be used by the Ministry of Public Works, Infrastructure, Environment, Labor, Meteorology and Disaster (MPWIELMD) and Ministry of Transport, Environment and Tourism (MTET). Activities under this component include data collection on physical inventory, freight and passenger traffic counts, safety data and asset condition as well as development of asset management inventory, which will be the first step to prepare a long-term maintenance plan. Training will be provided to relevant staff in the use of the system, and (ii) priority technical assistance to enhance planning capacity of the maritime sector in Tuvalu.

Component 2: Integrated Climate Resilient and Safe Maritime Sector Solutions (US\$40.0 million). This component involves the design and construction of identified priority maritime access and utility infrastructure to improve the resilience to climate-related hazards and/or extreme events as well as operational safety in the maritime sector. The expected activities include construction of new reef channels and turning basins to accommodate a 10-m workboat, construction of breakwaters to protect the channels and basins from wave action, jetties, small wharves, concrete ramps for fishing vessels and installation of Aids to Navigation (AtoN). Coastal protection measures to ensure sustainability and resilience of infrastructure may also be financed. In addition, rehabilitation and/or upgrade of access and utility infrastructure linked to these harbors, including access road to harbors, electricity, water, terminals



for passengers, and warehousing/storage areas, as well as equipment to improve maritime safety and resilience would also be considered. The following subcomponents are proposed:

Component 2.1: Nanumanga

- (a) Nanumanga Workboat Harbor. The provision of safe berthing facilities for 10m workboat harbor
- (b) Nanumanga Associated Infrastructure. The construction of: (i) a cargo shed/passenger holding areas; and (ii) upgrading of the access road between the existing townsite and the proposed harbor
- (c) Nanumanga Other Priority Investments. Priority investments to improve climate resilience and safety of maritime operation in Nanumanga. A study on maritime safety improvement under Component 3 will determine the most appropriate safety equipment for the island.

Component 2.2: Nanumea

- (a) Nanumea Harbor Infrastructure Extension. Improvement of existing harbor facilities, which include the construction of new: (i) passenger holding areas; (ii) cargo/warehouse shed, and (iii) additional berthing areas (suitable for local fishing boats)
- (b) Nanumea Maritime Operations Safety and Resilience Improvement. Provision of safety equipment to improve health and safety of maritime operations, which may include a 10-m workboat, a small crane, and other equipment. A study on maritime safety improvement under Component 3 will determine the most appropriate safety equipment for the island.
- (c) Nanumea Associated Infrastructure. Upgrading of the access road between the harbor, the Town Center and the rest of the island.

Component 2.3: Nukufetau

- (a) Nukufetau Workboat Harbor. The provision of safe berthing facilities for 10m workboat harbor
- (b) Nukufetau Associated Infrastructure. The construction of: (i) a cargo shed/passenger holding areas; and (ii) upgrading of the access road between the existing townsite and the proposed harbor
- (c) Nukufetau other Priority Investments. Priority investments to improve climate resilience and safety of maritime operation in Nukufetau. A study on maritime safety improvement under Component 3 will determine the most appropriate safety equipment for the island.

Subcomponent 2.4: Maritime Operations Safety and Resilience Improvement. A study on maritime safety improvement under Component 3 will determine the most suitable solution to improve maritime safety and resilience in Tuvalu. The outcome of the study will determine the most appropriate provision of safety equipment to improve health and safety of maritime operations, which may include a 10-m workboat, a small crane, harbor improvements, and other equipment. The parties confirmed their agreement with the components and subcomponents.

Subcomponent 2.5: Funafuti Wharf

The Funafuti Port works includes the following: pavement of the 6000 square meter cargo handling area with seawall to protect the area from erosion, repair of the warehouse and maintenance shed; energy efficiency improvements, and provision of wharf operational equipment.

Component 3: Strengthening the Enabling Environment (US\$5.00 million). Possible activities under this component could include:



Component 3.1 Implementation Capacity Building. This component will finance activities that will improve the policy, management and regulation of a climate resilient maritime infrastructure, and provide support to address gender employment gaps and potential sexual exploitation and abuse and sexual harassment concerns related to project implementation. This component will also include a study on the safety improvements on ship-to-ship transfer. The study may also include an assessment of vessel safety and recommendation on vessels in Tuvalu’s context. Technical trainings will be provided to sector agencies and local consultants and contractors to operate and regulate a more climate resilient maritime investments

Component 3.2 Project Management Support. This sub-component will finance the provision of technical, advisory, operational, and administrative support to MPWIELMD and the Project Management Unit (PMU) and supervising engineer consultancy. This would include the provision of office space, equipment, supplies, and financial auditing services.

Component 4: Contingency Emergency Response (US\$0 million). This zero-sum component will finance response to an Eligible Crisis or Emergency, as needed.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

Tuvalu is a volcanic archipelago and consists of three reef islands: Nanumanga, Niutao, Niulakita and six true atolls: Funafuti, Nanumea, Nui, Nukufetau, Nukulaelae and Vaitupu. Nine islands are low lying, approximately 2m above sea level, and are geologically young, with most having poorly developed sandy or gravel coastline soils. While each island varies in the configuration of maritime access, all have challenging tidal reef flats and channels to negotiate, which can result in hazardous passenger and cargo transfers depending on the tides and sea conditions. Many islands have an ageing population, thus hazardous maritime access affects less mobile community members with age-related health restrictions.

The environmental and social risk assessment the Project includes four infrastructure subprojects located respectively in (i) Nanumanga (ii) Nanumea, (iii) Nukufetau and (iv) Funafuti, which is new for the additional funding. The three islands have populations of approximately 400 people. Funafuti has 6,320 people (2017 census). Nanumanga and Nanumea are located 400 and 460km from Funafuti and Nukufetau 102km. Currently, roughly half of the country's population of some 10,500 lives on the main atoll, Funafuti and remaining is distributed across the other islands. Employment is heavily reliant on the public sector with the latest unemployment statistics from 2016, showing Tuvalu has an unemployment rate of 8.49%. Tuvalu's economy is highly dependent on remittances and the country is considered one of the most economically and environmentally vulnerable in the world. It is classified as a Least Developed Country (LDC) by the United Nations and Fragile and Conflict-Affected State (FCAS) by the World Bank. The resulting vulnerability of the country to natural disasters is high. Key investments include the construction or rehabilitation of harbors and ancillary infrastructure across the four islands of Nanumanga, Nukufetau, Nanumea and Funafuti. A detailed scope of works has been identified through feasibility studies (FS) for the Nanumanga harbor and Funafuti Port subprojects under MICRO (P161540). The harbor and ancillary infrastructure on Nanumanga will be small in scale, located on the southwest of the island and include a harbor suitable to facilitate a 10m workboat, with an approximately 20m by 90m reef channel (13,000m³ of dredged material), 60m jetty, 3m wide boat ramp. Preliminary engineering design has been not completed for Nukufetau and Nanumea as their site configurations and



scope of works are being determined with key stakeholders; however, investments are intended to be of a similar scale and design as for the Nanumanga works. As described in the updated ESMP 2024 for Funafuti, Funafuti Port works include new port pavement, upgrade and repair of wharf warehouse, rehabilitation of an existing seawall that will be excavated, and constructed, and backfilling to be closer to the lagoon from the existing wall by 7.4m is located at the northwest end corner of the wharf. Engineering design works for Funafuti are well advanced with a Contractor having been appointed for a design and build contract.

According to the UNDP-supported Tuvalu Coastal Adaptation Project report (TCAP, 2020), Nanumaga and Nanumea are considered to be sensitive due to the important physical role they play in both the interface between the terrestrial and marine environment and in protecting coastlines from erosion, which is a major threat to biodiversity and ecosystem services. No nearby sources of pollution (sewage, etc.) are known in the proposed sites. However, Nanumea and Nukufetau will require more information for confirmation during implementation. Further assessment of significant sources of pollution (e.g., sewage discharge, dredging etc.) will be completed as part of the environmental and social assessment, with respect to the existing biota and the context of the Project's area of influence and footprint.

Other investments will include a contingency emergency response component (CERC) and the development of spatial planning and risk-based tools (GIS mapping) for infrastructure investments to improve connectivity and climate resilience in Nanumanga, Vaitupu, Nanumea and Nui, a health outreach campaign to Nukufetau and Nanumea.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

The Executing Agency (EA) for the Project will be Ministry of Finance (MOF) and two proposed implementing agencies are: (i) MPWIELMD for Component 1, 2, and 3; and (ii) MOF for Component 4. As committed in the ESCP, an international E&S consultant and two E&S focal points will be assigned to the Project Implementation Unit (PIU), to be established within MPWIELMD. The PIU will be responsible for all of the activities under Components 1, 2 and 3, in the technical areas, including environmental and social (E&S) risk management and stakeholder engagement. MICRO 2 makes use of the Central Project Management Office (CPMO), which was established as part of the World Bank's Tuvalu Learning Project (TuLEP), to provide oversight and support on project implementation to all agencies working on development projects in Tuvalu in these areas. The CPMO is housed within MoF and is staffed with a Director and supported by international specialists who are tasked to provide guidance, training and hands-on support to the PIU. The CPMO is a new unit and will require awareness raising and capacity building with respect to the World Bank Environmental and Social Framework (ESF). The CPMO, supported by the PIU, will also be required to complete a capacity needs assessment during project implementation, including to establish the CPMO's and PIU's capacity to manage and train staff for environmental and social risk management compliance. The MPWIELMD, through the PMU and with support from the MoF CPMO, will coordinate the preparation of a training and capacity building plan for relevant implementing support staff responsible for the Project, including the ESF Focal Point, to receive training on the project's ESF instruments, including the Code of Conduct (CoC) and provisions to prevent SEA/SH, as described in the Environmental and Social Commitment Plan (ESCP).



While the capacity for implementing significant infrastructure projects in Tuvalu is limited, MICRO 2 builds on the lessons learned during the implementation of Tuvalu Aviation Investment Project (TvAIP), MICRO and TuLEP. The PIU will be responsible for the day-to-day implementation of MICRO II and will be assisted by CPMO on technical matters. These implementation arrangements aim to improve efficiency through the shared use of resources. MPWIELMD has had direct experience in E&S risk management and the preparation of E&S instruments from multi-lateral finance institutions; however, they have had no experience with the ESF. MPWIELMD has delegated the delivery and management of MICRO & MICRO 2 to the PIU. During MICRO they appointed an experienced international E&S consultant to support E&S risk planning and management. This consultant will continue to support E&S compliance and to work with the PIU in appointing all required E&S specialists to support MICRO II, including for the preparation and implementation of E&S instruments. Ongoing support, capacity assessment and capacity development from the World Bank E&S specialists to the PIU will continue to be required to ensure E&S compliance.

Other parties (e.g. to-be-recruited Supervision Engineer and Design and Build Contractor during project implementation) will be required as part of the contract to be resourced with a suitably experienced and qualified E&S consultant or officer.

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II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

A.1 Environmental Risk Rating

Substantial

The Environmental Risk is Substantial due to adverse environmental risks, which include changes to coastal hydrology and sediment transport, sedimentation and damage to coral through the completion of in-water works that cause a medium probability of resulting in longer-term impacts requiring significant time and investment to mitigate through each final ESIA. The Borrower has prepared (i) an environmental and social impact assessment/environmental and social management plan (ESIA/ESMP) for Nanumanga and (ii) a Preliminary ESIA/ESMP for Nanumea and Nukufetau, and (iii) an ESMP update (to align with the ESF requirements) for Funafuti Port works based on its 2018 ESIA. Funafuti Port works will have similar environmental impacts and the same nature and magnitude as those already identified for the works proposed for the other ports. The ESIA for Nanumanga is the result of 4 years of consultation, baseline profiling and design (under MICRO – P161540) and reflects advanced planning and is at a draft final (henceforth ‘comprehensive’). The ESMP for the Funafuti Port works is based on the instruments prepared under MICRO P161540. The Preliminary ESIA for Nanumea and Nukufetau is based on high-level baseline information. However, each ESIA/ESMP identifies the key risks and mitigation measures to protect live coral cover (LCC) and shoreline vegetation belt and mitigate indirect or long-term negative impacts, aligning with the national regulations and the World Bank



ESF and EHS Guidelines for Ports, Harbors, and Terminals (2017). The ESIA for Nanumanga identified the following risks: (i) changes to sediment transport due to wave shadows leading to erosion and accretion of sand; (ii) accretion at the toe of the beach towards the quay wall resulting in build-up of sand, which can stop sand moving up and down the beach resulting in localised shoreline erosion; (iii) breakwater type structures can cause increased in current speeds and changes in direction to create scour and localised erosion at the beach end of the solid structure; (iv) disruption of the vegetation line could have negative impacts on shoreline stability and lead to erosion and a reduction in resilience to storm events; (v) improper and uncontrolled use of heavy equipment and machinery has the potential to damage the shoreline vegetation and lead to erosion and a reduction in the resilience to climate change, (vi) introduction of non-native or invasive plant, pest or bacterial species from untreated aggregates would pose a threat to the plant and animal species in Tuvalu. The preliminary ESIA/ESMP for Nanumea and Nukufetau requires additional information from further baseline studies (e.g. coastal modelling, land surveys, detailed site options assessment) and further alternative analysis of disposal site for dredged materials during implementation while completing the detailed designs and prior to the commencement of works. The aim is to fully understand baseline conditions, including the biodiversity value of the receiving environment, the full nature and magnitude of risks associated with the in-water works and proportional mitigation measures (e.g. no construction-related disruption of the vegetation line is permitted and movement of heavy machinery will be controlled to ensure that only delineated areas are used for construction and movement). Construction phase risks include noise, dust, erosion, vegetation retreat, contamination through uncontrolled run-off, waste disposal or discharge, biosecurity risks of imported materials, damage to live coral and macroalgae in the dredged zone at the channel entrance, occupational, health and safety (OHS), and suspended sediments from dredging, disposal of dredged materials, estimated 16,000 m3 in the ESIA's. No construction materials will be sourced locally. Operational phase risks include contaminated runoff, OHS, waste disposal, noise, dust and spills.

A.2 Social Risk Rating

Substantial

The Project social risk is rated 'Substantial'. The social risks are identifiable and include: i) risks as a result of an influx workforce on small remote island communities, ii) land acquisition for temporary construction sites and permanent shoreside infrastructure (such as terminals), road improvements and stockpiles, iii) construction-phase health, safety and SEA/SH risks as a result of activities, iv) operational phase risks may include increases to the availability of store-bought (highly processed) food with impacts on public health. Project activities will take place in isolated locations which are difficult to supervise, and Covid- 19 related travel limitations means that Bank supervision is likely to remain limited for some time. While borrower capacity is somewhat limited, this is strengthened by the appointment of an experienced E&S specialist within the CPMO. This assessment has been informed by the ESIA/ESMP for Nanumanga and the Preliminary ESIA/ESMP for Nanumea, ESMP for Funafuti Port improvements and Nukufetau. As a result of the new harbors, there will be improvements to passenger safety including for those with mobility impairments, improved passenger amenity through improved shoreside facilities, and improved cargo handling both on shore and at sea. The new harbors will improve capacity to respond to natural disasters by having a sheltered harbor to accept incoming emergency relief supplies, and an increased number of operational days for services due to improved harbor designs. There will be opportunities for local employment and skills development during construction. The Preliminary ESIA/ESMP for Nanumea and Nukufetau has indicated four key features, benefits and risks of the Project, each of which will be confirmed during preparation of the comprehensive instruments to occur during implementation. These include the following. 1) Dredging may generate surplus aggregate which may be able used by island communities for local government or residential capital works projects. 2) The Projects will require temporary use of private land for facilities such as workers camps, stockpile and laydown sites. 3) There will be the requirement



for permanent land acquisition for shoreside infrastructure for passenger and cargo facilities and potentially for permanent or semi-permanent dredge spoil stockpiles. 4) There may also be temporary access restrictions to foreshore areas and facilities during construction phase to be confirmed during preparation of the comprehensive ESIA/ESMP for Nanumea and Nukufetau. Each of these features and risks have already been confirmed for Nanumaga and Funafuti Port, and has been integrated into the comprehensive ESIA/ESMP for that site. On all four islands there will be risks to public safety and of damage to property from construction machinery and materials and traffic during construction. There will be some public safety operational risks of access via jetty and stair structures and during cargo loading and unloading. The ESIA/ESMP indicates there likely be a need for some influx labor which introduces risks of increased competition services, increased road safety risks, increased need for housing, disruptions to community dynamics, social conflicts communicable diseases, crime increased rates of Gender-based Violence (GBV) and sexual exploitation and abuse/sexual harassment (SEA/SH) both within and outside the home primarily affecting women. The Preliminary ESIA/ESMP for Nanumea and Nukufetau, the comprehensive ESIA/ESMP for Nanumaga and ESMP for Funafuti Port have mitigation measures specified to manage these risks, appropriate to their stage of preparation. There are design-phase risks in Nanumea related to gaining full community support for an appropriate site. The SEA/SH risk rating for this Project is 'moderate' due in part to construction activities occurring in remote, unsupervised areas.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1 Relevance of Environmental and Social Standards

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Relevant

The long-term impact of the Project is primarily positive. Climate-resilient harbors and ancillary infrastructure will ensure that the country's most important corridors will be more resilient to climate events and remain open more of the time. Further, principles of the WB Advisory Note on Environmental and Social Framework for Technical Assistance (2019) and ESS1 Footnote 5 will be applied to the Technical Assistance (TA) activities to ensure TOR and outputs of the TA will consider downstream E&S implications. Nonetheless, regulations and/or guidelines might induce direct or indirect environmental and social implications when implemented through future investments, especially when they are not fully covered to the full extent of all sectors or key players or all geographic distribution.

The borrower completed the ESMP update for Funafuti Port to meet the ESF requirements in March 2024. . The ESIA/ESMP for Nanumanga are in the final draft. The ESIA/ESMP for Nanumanga is in the preliminary draft. Their typical environmental impacts include but not limited to: (i) changes to sediment transport due to wave shadows leading to erosion and accretion of sand; (ii) accretion at the toe of the beach towards the quay wall resulting in build-up of sand, which can stop sand moving up and down the beach resulting in localised shoreline erosion; (iii) breakwater type structures can cause increased in current speeds and changes in direction to create scour and localised erosion at the beach end of the solid structure; (iv) disruption of the vegetation line could have negative impacts on shoreline stability and lead to erosion and a reduction in resilience to storm events; (v) improper and uncontrolled use of heavy equipment and machinery has the potential to damage the shoreline vegetation and lead to erosion and a reduction in the resilience to climate change, (vi) introduction of non-native or invasive plant, pest or bacterial species from untreated aggregates would pose a threat to the plant and animal species in Tuvalu. The final ESIA/ESMPs for the other three ports will look at the possibility and need for engaging measures to protect Live coral cover (LCC) and shoreline vegetation belt.

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The Preliminary ESIA/ESMP for Nanumea and Nukufetau has identified the same kind of risks, however, will be confirmed or updated during project implementation once detailed design has been prepared; this will be done prior to the release of construction bid documents (as reflected in the ESCP). The preliminary ESIA/ESMP for Nanumea and Nukufetau will require additional information from key baseline studies (e.g. coastal modelling, land surveys, detailed site options assessment).

The ESIA/ESMP for Funafuti Port Improvement identified impacts including protection of the foreshore, solid waste management, wastewater management, and the preservation of water quality in the nearshore environment. Social risks are generally those associated with construction including risks of: influx workforce, community health and safety risks and positive employment and economic impacts (detailed further below). These impacts are characterized as site-specific, temporary, and reversible, primarily occurring during the construction stage.

Each of the ESIA/ESMPs, as appropriate to their stage of preparation, have identified all key risks, and have management measures in place. Each ESIA/ESMP has fulfilled national regulations, ESF and/or the World Bank Group's Environmental, Health, and Safety (EHS) Guidelines for Ports, Harbors, and Terminals (2017), and good practice guidance suitable for a preliminary assessment from Guidance Note for Borrowers ESS 2 Labor and Working Conditions (2018), whichever is most stringent.

Potential negative social impacts are related to a) influx labour, b) land acquisition associated with auxiliary infrastructure including shoreside infrastructure (terminals, wharves), possible dredge spoil stockpile sites and roads, c) construction phase health and safety impacts, and d) health impacts associated with increased importation and availability of processed store-bought food during the operational phase. Impacts (a) to (c) are expected to be lower on Nanumaga because the site is separated from the main settlements on the island, on Nukufetau these impacts will need to be more carefully planned and managed as the main site is within the proximity of settled areas and community infrastructure. On Nanumea the preferred site option will be confirmed during implementation and impact assessment and management plans included in the comprehensive ESIA/ESMP to be prepared for Nukufetau and Nanumea. Funafuti port work works carry social risks and impacts related to (a) and (c). Impact (d) will be similar across all islands.

To manage the above E&S risks, Each ESIA/ESMP has identified a range of mitigation measures, including (a) labour management procedures, codes of conduct, (b) a Resettlement Policy Framework and land access procedures, (c) a health campaign to promote good nutrition run as a project component and Operational Environmental Management



Plans or Subplans. The construction and operational Environmental Management Plans include other sub-plans for occupational health and safety, waste management and emergency/oil spill response, and traffic management.

While construction materials will be imported for the construction of the harbors and supporting infrastructure, Section 8 of the ESIA for Nanumanga concludes some risks related to change in the benthic environment (including live coral cover and macroalgae) and loss of benthic invertebrates in the subproject footprint. The same conclusion is anticipated for the final ESIA for Nanumea and Nukufetau.

In each ESIA/ESMP, the Borrower has identified requirements for Operational Environmental Management Plans to be included within the Contractor's ESMPs (C-ESMPs). As noted in ESS3 of this ESRS and the ESIA/ESMP for Nanumaga, any additional waste from infrastructure projects can have the potential to create a visual and environmental nuisance and cause pollution in the marine environment.

The Borrower has prepared: i) a stakeholder engagement plan (SEP) to ensure all stakeholders' interests and concerns are incorporated into the site, design, construction plans and assessments; and ii) an Environmental and Social Commitment Plan (ESCP) to set out the time-bound material measures and actions required for the Project to meet objectives and principles of the relevant ESSs. Each ESIA/ESMP considers all known labour risks and identifies proportional mitigation actions and further information required from further assessments and detailed design. A labor management procedure (LMP) has been prepared, and the ESCP will require an updated version once labor requirements are known (likely to be during project implementation) to manage risks and impacts to and of workers.

TA activities will likely lead to positive outcomes however pose some potential for negative downstream impacts when implemented through future investments. TA activities will be confirmed during implementation. The World Bank E&S Specialists will (i) screen TA activities to ensure that they reflect key E&S aspects and risks and mitigation measures, including requirements of the ESF and relevant local legal and good international industry practice (GIIP) in consultancy terms of reference (TOR)s and bidding documents; and (ii) review consultancy TORs and outputs to provide a 'No Objection' prior to finalization to ensure compliance with ESF and relevant local legal and GIIP requirements.



Lastly, a CERC-specific Environmental and Social Management Framework (ESMF) and CERC Operations Manual (including eligible CERC activities) will be prepared, disclosed, consulted, and adopted by the Borrower by the project effectiveness or before activating the CERC component.

ESS2 Labor and Working Conditions

Relevant

ESS2 is considered relevant. Workers involved in the Project include direct and contracted workers. Direct workers will include employees and consultants of the Project Management Unit (PMU), while contracted workers will be engaged through key consulting firms or construction contractors. The use of community workers is not anticipated; the inclusion of supply chain workers within the scope of the Project will be assessed and confirmed once a detailed design has been completed.

Each ESIA considers the risks associated with project workers, as well as the occupational, health and safety (OHS) risks associated with project activities, including operating heavy machinery, working in hazardous marine environments, loading and unloading, hazardous materials handling, inadequate use of personal protective equipment (PPE), COVID-19 transmission risks. Labor planning is in the very early stage and is unlikely to be confirmed until detailed design for Nanumanga, Nanumea and Nukufetau. A labor management procedure (LMP) has been prepared and the ESCP includes a required to update this once labor requirements are known. The LMP includes appropriate terms and conditions of employment, non-discrimination and equal opportunity (which includes a safe work environment free from violence and sexual harassment), workers' organizations, restrictions on child and forced labor, and OHS in design, construction, and operational phases. The LMP covers all construction phase worker health and safety risks associated with operating heavy machinery, construction in turbulent wave environments, transport to and from sites, and handling hazardous materials. In addition, the LMP includes Codes of Conduct (including SEA/SH), and dedicated worker's grievance response mechanism (WGRM), drawing on national laws and regulations and international best practices. Individuals under the age of 18 are prohibited from working on the Project by national laws and regulations.

The occupational health and safety (OHS) risks associated with both the construction and operational phase of the Project have been assessed and include a) construction-related OHS risks such as safety risks from operating heavy machinery, construction in turbulent wave environments, transport to and from project sites, handling hazardous materials and accidents or emergencies in isolated project sites, and lack of awareness of Occupational Health and Safety requirements such as the use of PPE, COVID-19 transmission risks. b) Influx of international workers to small island communities: increased risks of Sexual Exploitation and Abuse (SEA) /Sexual Harassment (SH), changes of power dynamics within households with increased cash income, and the rise of communicable diseases. Construction risks will be managed through the development and implementation of the comprehensive ESIA's, the LMP and contractor ESMPs. Operational risks (e.g., loading and unloading cargo and passengers) will be addressed through the development and implementation of contractor Operational Environmental Management Plans during project implementation. Each ESIA/ESMP includes detailed measures for health and safety risks and management for workers camps on the affected outer islands for influx workers, including and worker codes of conduct including for SEA/SH, options assessments of locations for workers camps to use the lowest impact locations, and Operational Management Plans for workers camps. The LMP includes requirements for the preparation of operational management plans for addressing health and safety risks, including potential COVID-19 pandemic risks for construction workers in accordance

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with ESF/Safeguards Interim Note: Covid-19 Considerations in Construction/Civil Works Projects (2020). The LMP will be updated during implementation when full labor needs are known will detail a local supplier and local skills development and employment plan.

Tuvalu remains COVID-19 free and as of November 2021, and the WHO reported that 6,230 persons had had at least one COVID-19 vaccination dose and 5,884 were fully vaccinated. However, the national health system capacity to deal with an outbreak remains weak, and Fiji, Tuvalu's primary international connection has suffered major outbreaks. In line with the World Bank's ESF/Safeguards Interim Note: Covid-19 Considerations in Construction/Civil Works Projects (2020), the Borrower will confirm that all construction contracts and works (i) have adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak.

ESS3 Resource Efficiency and Pollution Prevention and Management

Relevant

ESS3 is considered relevant. The infrastructure investments included in Component 2 may result in design, construction and operation impacts. Design risks have been considered in each ESIA and TORs of 'design and build' bidding package are to be compliant with the ESF, national legislation and GIIP requirements. The ESIA's look for opportunities to conserve water and energy as much as is technically and financially feasible, thanks to the potential to increase the availability of freshwater supplies to the island if rainwater harvesting is integrated into the design. Further, it is used as a decision-making tool to promote accessibility, safety and climate change considerations in the design and construction of civil works. As described in Section A of this ESRS, TA activities are expected to be positive and beneficial as they will bring a reduction in the use of resources and dumping of wastes and increase climate resilience. Each ESIA requires the Contractors to prepare Solid Waste Management Plan (SWMP) to stipulate the procedure of reduce, reuse, recycle, according to SWM guidelines in Appendix E of the ESIA/ESMP for Nanumanga. Funafuti's ESMP also includes the requirements for SWMP for non-hazardous and hazardous waste management and the Spill Response Plan to ensure that all fuels and lubricants in machinery, equipment, generators and on marine vessels are contained, collected, treated and disposed of aligning with national legislation and GIIP requirements.

Nonetheless, TA-related guidelines might induce direct or indirect environmental and social implications when implemented through future investments, especially when they are not fully covered to the full extent of all sectors/key players or all geographic distribution. These implications will be considered in the design and implementation of the TA activities (e.g, TOR and output) as guided in Footnote 5 of ESS1.

According to the current ESIA's, especially for Nanumanga, main potential impact on water resources are likely to come from Contractors project workers during the construction phase and the passenger area bathrooms during the operational phase. At this stage in the Project it is unknown how many workers will need to be housed on the island, however, a similar project on another of Tuvalu's outer islands for the ADB OIMIP project has brought in 45 workers to the island of Nukulaelae. Using 45 workers as a very conservative guideline there will be a need to ensure there are between 3 and 8 toilet units available within the workers accommodation camp. These toilets and other sanitary facilities (showers and basins) will generate sewage and wastewater which, if not properly managed, can cause nutrients, pathogens and other bacteria to enter the ground water. While ground water is not used on Nanumaga for drinking water, it is used to grow root crops in the pulaka pits. It has been shown that it is possible for vegetables to become contaminated with pathogenic organisms during growth when grown over contaminated groundwater.

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With the influx of labour onto Nanumaga for the period of construction, there will be an increased demand for freshwater. It is estimated that the average person requires 100 liters of water per day. If, to ensure a conservative approach, at this stage in project preparation we assume the Nukulaelae example of 45 workers for 3-4 months of construction, this adds up to 4,500 liters per day for all workers totaling 540,000 and 216,000 liters for 45 people for 4 months. It will be a requirement of the Project for water conservation measures to be used to minimise the demand and for the Project to provide for all freshwater needs of the workers through a combination of self-contained desalination units (noting that the island operates on 100% solar power and that alternative power sources are likely to be necessary to ensure consistent water production) and installation of new rainwater tanks. It will also be a requirement of the Project to maximise the use of local labour and minimise the number of foreign workers used on the island to further reduce demand.

During the construction phase there will be a need for natural resources such as aggregates for several activities such as concrete production and building foundations. At this stage of project preparation, it is estimated that the whole Project will require approximately 5,000m³ of aggregate, in addition to any pre-cast concrete to produce lean concrete. The Government of Tuvalu has instructed that no locally sourced materials are to be used for any construction project in the country and requests have come from the Nanumaga community not to use their sand resources. Therefore, MICRO 2 will not extract, or cause to be extracted, any construction materials nor will it use sand from anywhere on the island. Any additional removal of sand from the beaches of Nanumaga or all other sites would not be considered sustainable and could result in a net loss of sand from the beaches.

Protective measures will include:

- Any aggregates in addition to the dredge spoil in Nanumaga will be imported.
- No sand or coral will be taken from any beach in Tuvalu.
- Size of imported construction equipment (excavator, digger, etc) should be kept to a workable minimum.
- Building design should minimise run off towards the boat ramp. Run off from the building roof should be captured in water tanks with overflow drainage towards vegetated areas.

During the operational phase, the passenger terminal will require a supply of freshwater to run the sanitary systems and to provide the passengers with drinking water. The terminal building has been designed with its own rainwater catchment and storage system and should, therefore, not have a negative impact on the community's water supply. It is also possible that it may also act as an additional communal freshwater resource.

Protective measures will include:



- All toilets will be connected to septic tank systems. Any new permanent septic tanks will adhere to national requirements and will include additional stage inverted coral sand filtration in the dispersal field to remove pathogens.
- Contractor will arrange to supply all Project freshwater needs
- Community cisterns not to be used for workers camp
- Passenger and cargo buildings are designed with rainwater catchment systems
- Worker Management Plan to be developed according to Guidelines in the ESMP
- Water quality modelling will be undertaken during the design phase

Greenhouse gas (GHG) calculation is exempted as the project investments are not covered by the currently GP approved methodology (i.e., domestic and international maritime transport), accessible at <https://worldbankgroup.sharepoint.com/sites/TransportICT/Pages/pc/Operational-Guidance-for-Teams-10222018-155602/Greenhouse-Gas-Emissions-Analysis-10232018-163638.aspx>.

ESS4 Community Health and Safety

Relevant

ESS4 is relevant. While the harbour works and ancillary infrastructure in the four islands will improve the safety and efficiency of sea transport, each subproject’s construction and operations may pose direct impacts such as through increased noise, dust, vibration, traffic changes, and the incorrect disposal of waste and hazardous materials on the ecosystem services and affected communities on Nukufetau and potentially Nanumea. These impacts are expected to lower on Nanumaga as the site is substantially separated from the main settlement. Funafuti’s ESMP Update (2024) and the ESIA/ESMPs for other islands (2021) indicate E&S risks can be managed by careful siting of workers camps and laydown area, Operational Management Plans and workers codes of conduct. The ESIA/ESMP for Nanumaga (November 2021) indicates E&S risks to the communities can be managed by E&S mitigation measures in the Contractor’s ESMP (CESMP) that include traffic management plan and other requirements for noise, dust and vibration control, appropriate fencing, and waste management plan. The new harbors will substantially improve the safety and efficiency of sea transport on the subject outer islands by providing a deeper water boat harbour and wharf infrastructure and stairs able to be used in all tides and a larger range of sea conditions, eliminating hazardous movements on foot across reef flats, often carrying cargo. Construction activities can pose a risk to community members through increased noise, dust and traffic and the incorrect disposal of waste, including hazardous materials.

There is no identified risk of UXO in the Nanumaga ESIA. The ESIA/ESMP for Nanumea and Nukufetau requires (the contractors to carry out) surveying and handling measures of unexploded ordnance (UXO) in line with GIIP. The CESMP will also consider access requirements, standard construction and operation working hours, noise levels, and traffic



impacts to the affected communities. Contractor Operational Management Plans will be developed to mitigate risks to community health and safety during the construction phase and operational management plans will be developed to manage potential H&S risks during the operation of harbors and ancillary infrastructure.

The same types of E&S risks and mitigation measures are anticipated for the final ESIA/ESMP for Nanumea and Nukufetau, although it is not yet in an advanced stage and will be further updated or prepared, consulted, and disclosed during the project implementation.

The conservation of natural habitats is essential for the sustainable development of Tuvalu, as they provide food, livelihoods, protection from wave energy and cultural significance for the community members. The ESIA's consider the handling, storage and transport of goods (possibly including hazardous materials), vehicle movement, embarkation/disembarkation from vessels and maritime safety) and user safety and require that these are considered during design works. There are potential risks to community health and safety during the operations of the port, specifically related to the design of the berths. A further potential safety risk arises should the crane truck provided for the Project break down. There are very limited repair facilities available on Nanumaga and the supply chain for replacement parts is length, expensive and unreliable. As there is no provision for a manual fix mount crane (or similar) in the detailed design, there is no alternative available should the crane truck break and the community would need to unload all heavy and bulky cargos at the steps. This poses a safety risk to the handlers and also a damage risk to expensive cargo which might have to be unloaded in this way. By establishing an even pavement, the Funafuti port works will substantially improve worker safety for container loader vehicle operators, which is currently hazardous due to the degraded, uneven pavement.

As explained in the Nanumanaga ESIA, there can be exposed to health and safety concerns, including COVID 19 pandemic for both harbor workers and local communities if any harbor facility handles hazardous material and other safety measures. As a precautionary approach, Project Operation Management (POM) Manual is recommended to include health and safety measures for workers and communities will be prepared for each subproject site during implementation. Finally, no provisions have been made in the MICRO 2 project for the safe transfer of passengers from ship to ship; therefore, the significant safety risks faced by passengers will remain after project completion. While addressing this issue is outside the TOR scope of the Design Engineers, Sections 8 and 9 of each ESIA/ESMP recommend the POM to discuss options or Strategies for improving safety measures, including ship to ship access within the scope of MICRO 2. Examples of ship-to-ship safety measures include but are not limited to:

- Strategies to separate cargo handling and passengers on the wharf structures
- Strict management of public access to the reef flat during construction equipment offloading



- Training to be given to Nanumaga community members and workboat operators of vessels on the correct loading procedures and limits for the workboats and the sea conditions.
- Signage should be installed at the harbour to advise of critical operating restrictions (e.g. low water marker on cargo wharf which triggers the use of passenger steps for cargo unloading).

Potential COVID-19 pandemic risks have been considered for construction workers and local communities through the LMP (described in ESS2) and the ESIA/ESMPs. Each ESIA/ESMP assesses the risks resulting from construction to community health and safety and include the appropriate mitigation measures such as traffic management, dust control and restrictions to operating hours are compliant with Tuvaluan legislation, the GIIP such as the IFC EHS Guidelines for Ports, Harbours and Terminals, EHS, OHS, Labour and Workers Accommodation. Each ESIA/ESMP describes mitigation measures at different phases: maritime safety, safe disembarkation from boats, hydrocarbon storage, fire safety for the design; preventing community members from entering worksites, traffic management plans, and dust noise for the construction, and health and safety management plan considering loading/unloading boats and traffic management for the operations. The results will be used to inform the final feasibility study and engineering or detailed design.

The detailed design and operational planning for all harbours and ancillary infrastructure will integrate universal design considerations and features to the maximum extent possible to maximise the accessibility of the infrastructure, associated shoreside infrastructure and envisaged maritime transport services.

Each ESIA/ESMP describes appropriate to their stage of preparation, mitigation measures at different phases: project design (e.g. maritime safety, safe disembarkation from boats, hydrocarbon storage, fire safety etc.); construction (preventing community members from entering worksites, traffic management plans, dust noise etc.); and operations (operational procedures/management plans considering loading/unloading boats and traffic management etc.).

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant

This standard is considered relevant as there will be land required for several project components. The extent of land access requirements has been assessed to the furthest extent possible during the preparation of the ESIA/ESMPs though will only be confirmed once detailed design is available and once community capacity building has occurred on Nanumea. Based on past experience and cultural practices, this will be addressed through use of public land, voluntary transfer of use rights, or negotiated lease arrangements in consultation with the relevant land owners, Kapule, Falekaupule, Lands Department and wider community. Formal expropriation of land is not contemplated for this



Project. The Project will require temporary use of private land for activities such as workers accommodations, stockpile and laydown sites but the location of these cannot be determined until detailed design. Land to be acquired for the harbor and associated infrastructure would be long-term or permanent. Land will be accessed in accordance with the procedures in the Resettlement Policy Framework for the Project, however based on past experience this is expected to be through a negotiated settlement (willing lessor/willing lessee). There is likely to be the requirement for permanent land acquisition for shoreside infrastructure for passenger and cargo facilities and associated infrastructure and potentially for permanent or semi-permanent dredge spoil stockpiles, though this will be confirmed during detailed design. There may also be temporary access restrictions to specific foreshore areas and facilities during the construction phase and potentially changed land use patterns. Preference will be given to sites on government or communal land which would not require a lease. If not possible, the government will not compulsorily acquire land, rather land and other assets will be leased through negotiated settlement based on meaningful consultations with landowners. As a tool to manage potential risks, the Borrower has prepared a Resettlement Policy Framework (RPF). The requirement to prepare a Resettlement Action Plan (RAP) or Abbreviated Resettlement Action Plan (ARAP) on an as needs basis is included in the ESCP and will be required to be implemented before any land impacts occur. Any key provisions relating to land access will also be included in construction bid documents.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

ESS6 is relevant. Funafuti’s ESMP (2024) determines the aggregate for the construction activities that will be imported, posing a biodiversity risk due to invasive species. As such, the contractor shall prepare and implement an invasive species management plan in accordance with national regulations for all port works. According to Tuvalu’s 5th National Biodiversity Strategy and Action Plan, Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (2016), approximately 350 species of fish have been recorded. Nanumanga has a higher level of species richness (number of species). At Nukulaelae 42 species from 12 families were recorded and 37 species from 8 families at Niutao. Species richness is often higher in more complex (rugged) reef ecosystems, indicating that Nanumanga has a complex reef system allowing it to house more species of fish.

The ESIA/ESMP for Nanumanga (2021) requires no further data collection but will be consulted and disclosed prior to the release of any construction bid documents during the project implementation. The ESIA/ESMP for Nanumanga (2021) describes nature of the terrestrial and marine environment (including the potential change to live coral cover or fish habitat area and in water quality), risks from any increase in localised turbidity of the marine environment by suspension of sediments, uncontrolled and untreated wastewater from all project activities have the potential to increase the nutrient loading on the marine environment leading to algal blooms and potentially leading to loss of live coral cover. The ESIA/ESMP for Nanumanga also requires the contractor for an invasive species management plan to address risks from untreated aggregates and changes to sediment transport due to wave shadows leading to erosion and accretion of sand. Furthermore, Vegetation can be removed to clear the way for the landside facilities, including work sites. It is possible that the remaining vegetation line, which has a role in maintaining the shoreline stability along the back of the beach, will be damaged. Further disruption of the vegetation line could have negative impacts on shoreline stability and lead to erosion and a reduction in resilience to storm events.

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The ESIA/ESMP for Nanumanga identifies non-critical but natural habitats and covers biodiversity risks from imported materials (including aggregates if necessary). The ESIA/ESMP for Nanumanga also identifies potential loss of biodiversity in the form of live coral and fish habitat at reef crest if the toe of structure is designed close to the reef crest from the design and construction phases (in particular dredging and any other 'in water' works). The ESIA/ESMP for Nanumanga proposes mitigation measures (e.g. dredging and installation works should be timed to occur at low tide, therefore, reducing the opportunity for sediments to become suspended) to address these risks in Section 9 on ESMP and Appendix 3 on C-ESMP, aligning with the mitigation hierarchy of the ESF requirements. The mitigation measures should minimize vegetation and biodiversity impacts associated with land clearing, dredged material (or spoil) disposal and other construction activities. Further analysis is required for mitigation measures to achieve no net loss and net gain of biodiversity over the long term where appropriate and supported by relevant stakeholders. Further mitigation measures may include biodiversity offsets adhering to the principle of "like-for-like or better."

A final ESIA/ESMP for Nanumea and Nukufetau will require additional information from key baseline studies (e.g. agitation and wave modelling, storm surge modelling, land surveys, detailed site options assessment, Lidar-based bathymetry and topography, identification of workers camps and stockpiles sites and management approaches). The preliminary ESIA/ESMP recommends these further studies to confirm the potential issues and mitigation measures accordingly. A final ESIA/ESMP for Nanumea and Nukufetau will be prepared, consulted, disclosed and implemented prior to the release of any construction bid documents during the project implementation.

The Project may be importing machinery and equipment into Tuvalu and transporting it to outer islands, which may pose threats and impacts from invasive species both on the native biodiversity and the economy.

The construction and operations of the harbors and ancillary facilities in the reef islands and outer islands will also involve dust, noise, wastes that can affect marine biology or aquatic habitats, and environmental services. If there is run-off into the coastal areas, it could have biodiversity impacts, including killing fish, which is the main source of protein in the country. The conservation of natural habitats is essential for the sustainable development of Tuvalu, as they provide food, livelihoods, protection from wave energy and cultural significance for its people.

As outlined in the ESIA/ESMP for Nanumanga, any additional waste from infrastructure projects can have the potential to create a visual and environmental nuisance and cause pollution in the marine environment. The significance of those potential impacts and proposed mitigation measures where appropriate are covered in the ESIA's Sections 8 and 9.

Each ESIA or ESMP requires the Contractors Solid Waste Management Plan to stipulate the policy of reduce, reuse, recycle wherever possible. Organic biodegradable will be shredded at the community facilities. If the facilities are not functional, the Contractor will provide a new shredder. All non-reusable, non-recyclable and non-organic solid waste



will be disposed of outside Tuvalu in licensed landfills of suitable size and capacity to handle infrastructure project waste. Other proposed mitigation measures include:

- Training all machinery operators on ESHS risks to the marine environment and vegetation line from accidental damage during construction.
- No refuelling of machines or vehicles will be permitted in the marine environment.
- The storage area of Hazardous Substance and Materials will be at least 50m away from the marine environment and should be fully secured, locked when not in use and shaded from direct sunlight.
- Laydown and stockpile sites will be well managed and bunded to prevent run off towards the beach or marine environment.

Terrestrial works are expected to occur on previously disturbed land and will not include the clearing of any critical or sensitive biodiversity areas.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities Not Currently Relevant

This standard is not considered relevant. There are no known groups that meet the criteria in ESS7 as the overwhelming majority of people in Tuvalu (99.1%) belong to the Tuvaluan ethnic group (including 7% with mixed Tuvaluan and i-Kiribati ethnicity), who will be the overwhelming beneficiaries for the Project.

ESS8 Cultural Heritage Relevant

ESS8 is considered relevant. The Project will require screening for potential ESS8 risks, although it is unlikely that there will be any chance finds of items of cultural significance during civil works. "Chance finds" procedures are included in each ESIA/ESMP and will be then integrated into bidding and construction contracts. The "chance finds" procedure covers the finding of any new items of cultural importance or archaeological artifacts (fossils, coins, articles of value or antiquity, and structures and other remains or fossil items of geological or archaeological interest). The "chance finds" procedures require the finding must be registered, and the information shall be handed over to The Government of Tuvalu who will advise on how they shall monitor the construction works. For any discoveries, the Contractor will stop works and report the find to the Supervision Engineer. The Contractor will receive instructions from the Supervision Engineer acting for the client, under the advice of the Government of Tuvalu, on the course of action in case of chance finds. The Contractor will be obligated to strictly follow those instructions. Work should resume only after receiving a formal clearance from the supervision engineer.

ESS9 Financial Intermediaries Not Currently Relevant

The standard does not apply as the Project does not propose to include financial intermediaries.

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ESS10 Stakeholder Engagement and Information Disclosure

Relevant

This standard is considered relevant. The Borrower has prepared a SEP, including a Grievance Redress Mechanism (GRM). This has been developed in a manner that is accessible and culturally appropriate, considering any specific needs of groups that may be differentially or disproportionately affected by the Project. The SEP outlines a structured approach for community outreach and two-way engagement with stakeholders, in appropriate languages, and adopting measures to include vulnerable and disadvantaged groups (poor, people with a disability, elderly, isolated communities), and is based upon meaningful consultation and disclosure of appropriate information. This includes meaningful consultation with remote island communities (notwithstanding any Covid 19 related travel restrictions which may emerge), community-based organisations and religious groups. The SEP reflects the consultation activities undertaken during preparation which includes community consultation with the Falekaupule (traditional community governance organisation), Kaupule (administrative/government arm of Falekaupule), community groups, and engagement with key government and civil society stakeholders in Funafuti. This was undertaken during project preparation (September – November 2021) by the CPMO national E&S advisor and the MICRO 2 PMU Project Director and Project Manager. Due to COVID-19 travel restrictions, international specialists have not been able to attend meetings in person.

The main stakeholders included in the SEP are: MPWIELMD, communities on the Nanumanga, Nukufetau, Nanumea, and Funafuti, the Falekaupule and Kaupule on these islands, land owners of affected sites, community-based organisations, women's organisations, organisations representing people with a disability, Tuvalu Family Health Association, social workers, and key civil-society organisations such as the Tuvalu National Council of Women. Additional stakeholders may include the Department of Environment, , Gender Affairs Department and multi-lateral organisations running related projects including UNDP for the Tuvalu Coastal Adaptation Project (TCAP), and the ADB-funded TOIMIP. Related to the implementation capacity building component this may also include: Fiji Women's Crisis Centre (FWCC), UN Women, UNICEF and DFAT/Pacific Women, Tuvalu Ship Registry, Tuvalu Maritime Women's Committee and Tuvalu Maritime Training Institute to discuss other potential prevention and support service trainings to strengthen the Maritime Sector's capacity to prevent and respond to SEA/SH.

The SEP also notes how often the engagement will occur throughout the Project; how feedback will be solicited, recorded and monitored over the Project; and key roles and responsibilities. The SEP will be disclosed prior to appraisal and updated as relevant throughout implementation. The SEP include measures to minimise the risks of covid 19 transmission in line with national and World Bank standards.

Consultation in Nanumea indicated that the community were undecided about the available options for the location of the harbour, raising concerns about each of the options presented. As a result the SEP includes appropriate measures to to build community awareness of key features of near shore maritime environments, provide adequate time for consultation and build an understanding of maritime infrastructure design and major project planning. This will be supported by technical specialists and engagement professionals in the local language, with opportunities for broad community participation. Consultation in Nukufetau was also undertaken in project preparation by the CPMO national E&S advisor and MICRO 2 PMU Project Director and Project Manager. This has resulted in community consensus regarding the site options proposed, with further consultations to occur during the preparation of the comprehensive

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ESIA/ESMP for Nukufetau and Nanumea to confirm the preferred design option. Note that each of the three options put forward are design variations using the same site. Consultations on Nanumaga are at an advanced stage with approximately 4 years of options assessment, baseline profiling and site investigations, concept and detailed design including multiple rounds of community consultation (under the MICRO Project – P161540) as detailed in the Nanumaga ESIA. All landowners have been identified and land acquisition within a negotiated settlement (willing lessor and willing lessee) arrangement has been investigated, as detailed in the process in the Nanumaga ESIA/ESMP. Relevant consultation has occurred as part of the Funafuti port works with the kaupule and surrounding communities.

B.2 Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

B.3 Other Salient Features

Use of Borrower Framework No

The use of the borrower framework is not relevant.

Use of Common Approach No

No common approach is applied to this project.

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required during implementation?

The Borrower has prepared (i) an environmental and social impact assessment/environmental and social management plan (ESIA/ESMP) for Nanumanga and (ii) a Preliminary ESIA/ESMP for Nanumea and Nukufetau, and (iii) an ESMP update (aligning with the ESF requirement) for Funafuti Port works based on its 2018 ESIA. The ESIA for Nanumaga is the result of 4 years of consultation, baseline profiling and design (under MICRO – P161540) and reflects advanced planning and is at a draft final (henceforth ‘comprehensive’). The ESMP for the Funafuti Port works is based on the instruments prepared under MICRO P161540. The Preliminary ESIA for Nanumea and Nukufetau is based on high-level baseline information. However, each ESIA/ESMP identifies the key risks and mitigation measures to protect live coral cover (LCC) and shoreline vegetation belt and mitigate indirect or long-term negative impacts, aligning with the national regulations and the World Bank ESF and EHS Guidelines for Ports, Harbors, and Terminals (2017). The ESIA for Nanumanga identified the following risks: (i) changes to sediment transport due to wave shadows leading to erosion and accretion of sand; (ii) accretion at the toe of the beach towards the quay wall resulting in build-up of sand, which can stop sand moving up and down the beach resulting in localised shoreline erosion; (iii) breakwater type structures can cause increased in current speeds and changes in direction to create scour and localised erosion at the beach end of the solid structure; (iv) disruption of the vegetation line could have negative impacts on shoreline

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stability and lead to erosion and a reduction in resilience to storm events; (v) improper and uncontrolled use of heavy equipment and machinery has the potential to damage the shoreline vegetation and lead to erosion and a reduction in the resilience to climate change, (vi) introduction of non-native or invasive plant, pest or bacterial species from untreated aggregates would pose a threat to the plant and animal species in Tuvalu. The preliminary ESIA/ESMP for Nanumea and Nukufetau requires additional information from further baseline studies (e.g. coastal modelling, land surveys, detailed site options assessment) and further alternative analysis of disposal site for dredged materials during implementation while completing the detailed designs and prior to the commencement of works.

III. CONTACT POINTS

World Bank

Task Team Leader: Satoshi Ogita Title: Senior Transport Specialist

Email: sogita@worldbank.org

IV. FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

V. APPROVAL

Task Team Leader(s): Satoshi Ogita
ADM Environmental Specialist: Bunlong Leng
ADM Social Specialist: Ian Alexander Hay
Practice Manager (ENV/SOC) Ingo Wiederhofer Cleared on 12-Mar-2024 at 23:20:59 GMT-04:00

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