Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)
### BASIC INFORMATION

#### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Project Name</th>
<th>Parent Project ID (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuvalu</td>
<td>P161540</td>
<td>Maritime Investment in Climate Resilient Operations</td>
<td></td>
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<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Project Financing</td>
<td>Tuvalu</td>
<td>Ministry of Finance and Economic Development (MFED), Ministry of Communications and Transport</td>
</tr>
</tbody>
</table>

**Proposed Development Objective(s)**

To improve the climate resilience of Nanumaga Harbor and Funafuti Port and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

**Components**

- Component 1: Sectoral and Spatial Planning Tools
- Component 2: Climate Resilient Infrastructure Solutions
- Component 3: Strengthening the Enabling Environment
- Component 4: Contingency Emergency Response

### PROJECT FINANCING DATA (US$, Millions)

#### SUMMARY

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Total Project Cost</td>
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<tr>
<td>Total Financing</td>
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<td>of which IBRD/IDA</td>
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<tr>
<td>Financing Gap</td>
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#### DETAILS
B. Introduction and Context

Country Context

1. The Pacific region is widely recognized as being heavily exposed to natural hazards including floods, droughts, tropical cyclones, earthquakes, volcanic eruptions, and tsunamis. The societies and economies of Pacific Island Countries (PICs) are particularly vulnerable to hazard and climate change related impacts as a result of their geographical remoteness, dispersion and isolation, distance from markets and vulnerability to external economic shocks, social challenges and the degradation of natural resources. Vulnerability to extreme climate events is also increasing due to population growth and migration (internal and external), poor coastal development and land use planning, unplanned urban growth, and water and ecosystem degradation including pollution of sub-surface and coastal waters.

2. Among the PICs, Tuvalu is regarded as one of the most vulnerable countries. Located approximately 1,100 kilometers north of Fiji, Tuvalu consists of nine islands, with a total land area of around 26 km². Of the nine islands, three are reef islands (Nanumaga, Niutao and Niulakita) and six are atolls (Funafuti, Nanumea, Vaitupu, Nui, Nukulaelae and Nukufetau). Few of the islands are more than 800 meters wide and most of the land area is low-lying with a maximum elevation of about 4.5 meters. These geographical features have considerably exposed Tuvalu to the impacts of climate change. Storm surges, king tides and floods, which are common occurrences and which have intensified due to changes in weather patterns, as well as sea level rise and more extreme weather events such as tropical storms and cyclones have resulted in significant damage to the islands and their inhabitants in the past.

3. Tuvalu’s economy is highly dependent on remittances and the country is considered one of the most economically and environmentally vulnerable in the world. In 2016, Tuvalu’s gross domestic product (GDP) was around US$36.6 million. Remittances received accounted for about 11.9 percent of GDP in 2016. Employment is heavily reliant on the public sector with an estimated 65 percent of the population working in Government positions. The primary economic activities are fishing and subsistence farming, with copra as the main export. Outside of fishing, there is little other industry available with the exception of small-scale processing of timber (sourced locally or from New Zealand), handicrafts, and small numbers of Tuvaluans working in the tourism industry.

4. Roughly half of the country’s population of some 10,500 lives in the capital Funafuti with the remaining population
disbursed across the other eight islands and atolls, each with one or two villages. Since 2003, populations on the outer islands have been migrating to Funafuti due to the lack of economic opportunity and limited social services. This has resulted in overcrowding in Funafuti with a density estimated at more than 2200 people per square meter, putting strain on the already limited natural resources and basic services. The GoTv is therefore actively trying to improve infrastructure on the outer islands to incentivize the return of local populations to the outer islands, which will help to avoid overcrowding in Funafuti.

5. The outer island of Nanumaga, located approximately 400 kilometers from the capital of Funafuti, has been identified by the Government of Tuvalu as a key location for improved access infrastructure. Nanumaga is a single reef island (301 hectares) with a population of about 500 spread between two main villages, Tonga and Tokelau. The island is governed by its own Falekaupule, a traditional assembly of elders and community leaders that acts as the local government on each island. The Falekaupule fulfills many of the local government functions including economic management, town or village planning, land administration, public health and education. Nanumaga has both pre-primary schools, but relies on students being sent by ship to Vaitupu (292 km away) for their secondary schooling. As with other islands, agriculture is also limited in Nanumaga due to the geographic makeup of the island and the climatic conditions. Whilst there are a number of ongoing initiatives by the Agriculture department focused on encouraging vegetable gardening, reliance on food being shipped from Funafuti is still high. This makes reliable and adequate maritime access and associated infrastructure critical for the community.

Sectoral and Institutional Context

6. The remoteness of Tuvalu and its outer island and the infertile soil make inhabitants heavily reliant on shipping operations. Most foodstuffs (excluding local foods, such as fish, coconuts and some fruits), all building materials, and manufactured products, as well as critical emergency relief goods after natural disasters are imported to Tuvalu. Currently cargo, including food items, construction materials and fuel is shipped into Tuvalu from Fiji approximately every 23 days and are then distributed among the outer islands with inter-island vessels as there is no domestic aviation service. About 43 percent of the population live on the outer islands, and therefore rely on the effectiveness and efficiency of these shipping operations. Domestic shipping connectivity is also critical for the populations on outer islands to access secondary and tertiary education and access to hospital services in Funafuti and abroad.

7. The inter-island vessels visit each island group with an average frequency of about once every one-to-three weeks depending on the length of the route. A full circuit of the central island route takes about one week to complete, while services to the northern and southern islands occur once every two to three weeks. These infrequent services are exacerbated by irregular schedules, which often change to accommodate requests to pick up sick or injured people on short notice. A trip covering all the northern islands and Vaitupu is undertaken once every three months to allow parents to send school and food supplies to their children attending the secondary school in Vaitupu.

8. Funafuti is the only port for all overseas shipments from the region, and the hub for all domestic shipping. It consists of two concrete wharfs (L-shaped jetties), an unpaved cargo handling area and two large storage facilities. International vessels berthing at Funafuti Port include cargo ships (both regular and irregular), ocean-going fishing vessels, and tourist ships, the numbers of which vary greatly from month to month. The Department of Ports and Marine Services (DPMS) only recently initiated the systematic electronic collection of data on international calls at the port. Data from the early months of 2018 shows that in addition to the monthly call of an international container ship and a small petrochemical vessel from Fiji, the port received 117 calls by foreign fishing vessels (both
refrigerated Reefers (Carriers) and fishing vessels) in the first two months of 2018. In addition, the most recent data available for domestic traffic from 2014, shows that the interisland vessels call at Funafuti port on average 1.4 times a month.

9. The main port is largely unpaved which often causes damage to the cargo handling equipment resulting in frequent breakdowns. Repairs mostly have to be undertaken by technicians from abroad since there are no adequate facilities available to undertake maintenance of cargo handling equipment as well as smaller size boats. According to the DPMS, the cost for repairs and the associated costs of delays for the period of 2013 – 2018 amount to about US$5.7 million. The delays can be significant given the remoteness of Tuvalu and the need to import all spare parts. In addition, the container yard lacks efficient organization including the storage of empty containers on site which leads to limited space for incoming cargo and traffic congestion in and around the port.

10. Maritime infrastructure on the outer islands is very limited. Most reef islands such as Nanumaga and Niutao simply have a narrow access channel and a small turning basin carved into the reef, and no landside infrastructure. Due to their large size, inter-island vessels can therefore not directly access most outer islands. Inter-island vessels must moor offshore and passengers and cargo are transferred onto smaller work boats (which are brought onboard the larger inter-island vessel) and transited to shore. This includes passage through deep water up to the entrances of the reef channel or lagoon. This process must be undertaken across a range of tidal levels, weather and sea conditions, channel widths, depths and currents, and often at night. The lack of any hard access infrastructure such as a jetty or wharf has also resulted in lengthy manual un-loading and offloading where, depending on the tide, stevedores have to carry goods across the reef flat in the water. This process often results in damage or loss of cargo, which is particularly critical for the distribution of emergency goods following natural disasters. Furthermore, the off-loading of passengers, particularly elderly and disabled is difficult with people having to be carried across the reef by volunteers. Cargo is manually carried across the reef flat to and from the inter-island vessel workboats.

11. There is a lack of technical capacity and financial resources to manage and oversee the port and shipping operations. The maritime sector in Tuvalu is overseen by the Department of Marine and Ports Services (DMPS), which is located within the Ministry of Communication and Transport (MCT). DMPS is responsible for administrative matters, management and operations of the ports and management of domestic shipping vessels, including maintenance responsibilities. DMPS is also responsible for technical and policy advice in the sector and certification of the Tuvalu Maritime Training Institute (TMTI). The unit comprises 62 staff, including 2 technical staff, 10 crane operators and 50 vessel crew members for the 3 state-owned domestic vessels.

12. DMPS’ budget is limited by the available national fiscal space amidst competing demands. Budgetary over-expenditure, on account of high vessel operating costs, is the norm. The two technical staff are only able to address the most pressing issues, which leaves little time to develop strategic approaches for the sector. It is important to enable DMPS to move from a reactive to a more proactive approach to ensure a resilient maritime sector. Streamlining climate resilience within MCT, and particularly DMPS, will require considerable capacity building. Tuvalu has a limited number of private shipping agents and freight forwarders; however, they are reported to have good communications and operational relations with the government.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)
13. The project PDO is to “Improve the climate resilience of Nanumaga Harbor and Funafuti Port and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency”.

Key Results

14. To monitor progress toward the PDO, the following set of indicators have been identified:

(a) Climate resilient investments on Nanumaga constructed and operational (Percentage).
(b) Reduction in cargo damage at Nanumaga (Percentage).
(c) Climate resilient investments on Funafuti constructed and operational (Percentage).
(d) Improved operations at Funafuti port (Amount, USD).

D. Project Description

15. MICRO consists of the following components:

(a) **Component 1: Sectoral and spatial planning tools**: This Component finances spatial planning and risk-based tools for infrastructure investments to improve connectivity and climate resilience. Under this component a GIS-based mapping to improve preparedness and post-disaster response for persons with disabilities and the elderly in the outer islands.

(b) **Component 2: Climate resilient infrastructure solutions**: This Component involves the design and construction of identified priority maritime access and utility infrastructure to improve the resilience of the maritime sector to climate-related hazards and/or extreme events. The following Sub-components are proposed:

   - Climate resilient and efficient maritime access infrastructure on Nanumaga; and,
   - Climate resilient port infrastructure and operational equipment for Funafuti Port.

(c) **Component 3: Strengthening the Enabling Environment**: This Component will provide funding to support institutional and regulatory reforms, including measures to strengthen local capacity and to increase the sustainability of climate resilient maritime sector investments. Proposed Sub-components include:

   - Technical Assistance to MCT for the design and supervision of maritime infrastructure;
   - Technical Assistance to MCT, including DPMS, to improve port operations;
   - Support for enhanced GBV, VAC and trafficking training, prevention and support activities; and,
   - Project management support for technical, advisory and administrative service provision.

(d) **Component 4: Contingency Emergency Response**: This component is designed to provide swift response in the event of an Eligible Crisis or Emergency, by enabling the Government to request the Bank to re-allocate project funds to support emergency response and reconstruction.

E. Implementation
Institutional and Implementation Arrangements

16. The Recipient is the Ministry of Finance and Economic Development (MFED), while the IA for all components is the MCT. Other stakeholders include the DMPS, which is responsible for administrative matters, management and operations of ports and ships as well as technical and policy advice in the sector.

17. Under the ADB-financed Tuvalu Outer Island Maritime Infrastructure Project (TOIMIP), a Project Management Unit (PMU) was established under MCT that is staffed with national consultants in project management and financial management roles. The Program Coordinator within the PMU provides high-level oversight for both the ADB and IDA projects. A Memorandum of Understanding was signed in May 2018 between MCT and the ADB to increase the PMU’s mandate to cover both the implementation of TOIMIP and MICRO through the establishment of a joint PMU. Additional staff in project management, procurement and safeguards will be financed by MICRO to complement the existing PMU staff.

18. The joint ADB-IDP PMU will support the implementation of MICRO and build on the lessons learnt through the existing World Bank Aviation Project in Tuvalu, as well as the ongoing ADB-financed TOIMIP, making use of the existing arrangements being utilized in country and within the maritime sector.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The Project investments are on Nanumaga Island and Funafuti Port. Nanumaga is a single reef island (301ha), with a population of about 500. The Nanumaga investment will be built at the site of the channel and former boat ramp, which are located on the northwest shoreline of the island at the village. The boat ramp was located directly in front of the main communal area of the village. The marine environment of the island includes a fringing reef shelf and live coral communities seaward of the reef shelf. Marine environmental baseline studies undertaken in 2016 and 2018 found that, overall, there is a low percentage of live coral cover near the site of the existing boat channel and boat ramp, including the reef flat (0%), crest (1%) and slope (12.5%). These levels of LCC at the project site are considered to be low compared to national and regional averages, which vary between 30 and 70%. Globally, the standard criteria for coral reef health define a LCC level of less than 24.5% as being low, indicating that the reef at the channel area is in poor health. Similarly, LCC at a reference site was found to be generally low. The baseline surveys identified that the beach berm and vegetation line, which are generally elevated up to a level of 7m above sea level, perform a very important protective function of vegetation and infrastructure behind the vegetation line during storms. The beach berm and vegetation line are generally intact throughout the island, except at the location of the former boat ramp and storage shed, which were both destroyed during cyclone Pam. In Nanumaga, the harbor will be built on crown land and thus no additional land will be required, but the location of associated terrestrial facilities is yet to be determined. Preference will be given to sites on government or communal land which would not require a lease. If not possible, the government will not compulsory acquire land, rather land and other assets will be leased through negotiated settlement based on meaningful consultations with landowners. Funafuti Port is located towards the northern end of Fongafale Island, approximately 1km from the main administrative center of Funafuti. The Port is not
located in an environmentally sensitive area and proposed investments are limited to landside infrastructure improvements. In Funafuti landside facilities will be built within the port boundary.

**G. Environmental and Social Safeguards Specialists on the Team**

Wolfhart Pohl, Environmental Specialist  
Ross James Butler, Social Specialist  
Rachelle Therese Marburg, Social Specialist  
Nathalie Suzanna Noella Staelens, Environmental Specialist

### SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The improvement in the safety and reliability of marine transport will have social and economic benefits to the people of Nanumaga and Funafuti. However, the construction of the navigation channel and of a harbor basin, breakwaters and ancillary infrastructure will lead to modification of the subtidal, intra-tidal and supra-tidal coastal areas, which may potentially alter sediment transportation processes, resulting in erosion and/or accretion, remove and alter habitats and ecosystem services, increase the risk of salt water intrusion into groundwater lenses, and impact on food gathering and livelihoods. These impacts may be cumulative to climate change and disaster-related impacts. During operations, the maintenance of navigation channels and boat harbors creates a periodic risk of disturbances and impacts to benthic and reef ecosystems in the immediate area. The temporarily increased number of vessel movements during construction increases the risk of biosecurity incursions and accidental pollution, impacting livelihoods, ecosystem function and food gathering. Due to these concerns, OP/BP 4.01 was triggered and an ESIA / ESMP was prepared for the project.</td>
</tr>
</tbody>
</table>
The proposed works at Funafuti Port and Nanumaga have been screened based on field investigations and a review of the updated options and is classified as a Category B project. Potential impacts are less than significant, site specific, mostly reversible and that a range of potential measures for mitigation can be readily implemented. Category A risks are those that are likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. Category A impacts are not acceptable to the Project, and no investments will be undertaken that are classified as Category A. It is noted that at the concept stage, it was envisaged that the works might involve a much larger and intrusive investment of sufficient size to harbor a sea-going vessel. In addition, the location of the Nanumaga Harbor was yet to be determined and two options were being considered – the existing access channel or a new location on the island. Given the scope and high impacts of such a proposal, the project was classified as a Category A project. However, following the decision to proceed with a small-scale work boat harbor at the site of the existing access channel in Nanumaga and a recalibration of community expectation based on the assessments undertaken (e.g., vulnerability assessment), the project has shifted from one with potential high impacts to a far more modest project i.e., a Category B project.

<table>
<thead>
<tr>
<th>Performance Standards for Private Sector Activities OP/BP 4.03</th>
<th>No</th>
<th>Not applicable.</th>
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</thead>
<tbody>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
<td>The policy was triggered because the proposed investments in Nanumaga will involve the modification and / or loss of natural habitats in the foreshore and marine environment. 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. The ESIA has determined the nature of the existing environment, including the identification of any critical habitats as defined by the policy, and the ESIA/ESMP has identified the avoidance and enhancement measures, as well as mitigation and management of impacts from each phase of the project.</td>
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<tr>
<td>Policy Type</td>
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<td>Reason</td>
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<tr>
<td>---------------------------------------------</td>
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<td>------------------------------------------------------------------------</td>
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<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td>The ESIA determined that the project will not affect the health or function of the inland terrestrial or mangrove forests in Nanumaga and hence the policy is not applicable.</td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td>This policy is not triggered because the project does not involve the control or management of pests nor the purchase and use of pesticides.</td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>No</td>
<td>The baseline surveys carried out as part of the ESIA process did not identify the presence of any physical cultural resources within the project’s area of influence. Hence, the policy is not triggered.</td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
<td>The assessment undertaken by OPCS and documented in the Environmental and Social Safeguard Instrument for the Pacific (ESSIP) found that there are no minority populations in Tuvalu that meet all four criteria in OP 4.10. Hence this policy is not triggered.</td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>No</td>
<td>Involuntary Resettlement, OP/BP 4.12, is not triggered under the project as no involuntary land acquisition or changes in access are anticipated. On Nanumaga, the harbor will be built on crown land and thus no additional land will be required. While the location of associated terrestrial facilities is yet to be determined, preference will be given to sites on government or communal land which would not require a lease. If this is not possible for any reason, the ESMP confirms land and other assets will be leased through a negotiated settlement based on meaningful consultations with landowners, Ministry for Land and the Falekaupule. Compensation for land will be paid in accordance with Government rates which are AUD$3,000 per acre per annum. It is probable that the laydown and/or stockpile sites will be on private lands which will be rented for a short period by the Contractor. It will be documented that the Falekaupule agree to support the rental of this land by the landowner to ensure ongoing community support and to determine that there are no ownership conflicts over the piece of land subject to rental. The terms of the rental agreement will be negotiated between the identified landowner and the Contractor with the facilitation of the PMU and Kaupule. Rental agreements will not exceed the period between mobilization and demobilization, and rental rates will not be less than the government rates.</td>
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</table>
land valuation of AUD$3,000 per acre per annum (or part thereof). If project works affect non land assets, preference will be given to avoiding clearance. Where this is impossible, agreement to the removal of assets and receipt of compensation, as well as the rate of compensation (to be based on the latest government valuation or full replacement cost at existing market prices) and the terms/method of payment will be established by consultation and negotiation between the asset owner, the PMU and Contractor. In Funafuti the construction of a maintenance shed will be located within the existing port perimeter.

Safety of Dams OP/BP 4.37  No  Not applicable.
Projects on International Waterways OP/BP 7.50  No  Not applicable.
Projects in Disputed Areas OP/BP 7.60  No  Not applicable.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The key environmental impacts identified in the ESIA relate to the modification of sediment transportation processes in Nanumaga and the associated potential coastal erosion and accretion from the construction of breakwaters, jetties, etc. The design of the facilities has ensured minimal impacts on sediment transportation mechanisms will be incurred through the following measures: no solid structures beyond the reef flat; only piled structures will be permitted on the sand; distance between breakwater and sand line to be maximized to retain littoral drift; coastal modelling will be reviewed by independent experts; design features to reduce sand catchment in the harbor basin and channel; development of feasible maintenance schedule for harbor clearance to remove sand; increase depth of channel entrance to reduce size of waves in the entrance.

Due to the extreme importance of the beach berm and vegetation line in protecting the island and more specifically the village from flooding and storm damage, any impacts on their integrity could have disastrous consequences. In order to protect the beach berm and vegetation line, there will be no further breaches or clearing allowed for the purpose of constructing the proposed buildings, including the cargo shed and passenger terminal. The buildings will be constructed within the footprint of the former cargo shed that was destroyed during Tropical Cyclone Pam. This will require climate resilient foundations, but will not result in further impacts on the beach berm and vegetation line.

The baseline survey found that the reef flat and crest in the project area are largely devoid of live coral coverage and similarly, live coverage on the potentially affected reef slope is very low. Hence, the ESIA concluded that potential impacts associated with loss of benthic habitats and more specifically coral reef habitat are negligible. Other key
potential impacts relate to the sourcing of aggregates, in case the dredged material can’t be used or is not sufficient. Apart from the dredged material, no materials will be sourced locally from Nanumaga for the construction of the harbor and the project design also anticipates minimizing the import of aggregates by using pre-cast concrete panels for the harbor construction at Nanumaga. This approach has already been adopted and trialed in Nukulaelae as part of the ADB’s TOIMP project. Any imported materials, equipment and aggregate will be subject to importation under the aggregate will be subject to importation under the quarantine and biosecurity regulations of Tuvalu, with mitigation measures outlined in the ESIA.

The significant social impacts associated with the project include influx of workers from outside and within different islands in Tuvalu and location of workers camps. In relation to workers, the ESIA confirms that impacts may include social conflict between the local community and the construction workers; potential increase in illicit behavior and crime; and pressure on local water and food supply. To address these impacts, a worker management plan will be developed and all workers will be required to sign a code of conduct on appropriate behavior (including HIV and GBV awareness). The Contractor will be required to supply all project freshwater and food needs during construction and use of community resources will be prohibited. Benefits however, are likely to be gained through local employment opportunities. Contractors will be required to prioritize the use of local workers. To assist this, a local labor registry will be developed and use of a rotation system for employment opportunities to be managed by the local Kaupule which will encourage benefit sharing; and contractors will be required to employ local community members (likely to be women) for food preparation and housekeeping.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
The ESIA outlines potential long-term impacts, which includes: (i) changes to sediment transport due to wave shadows leading to erosion and accretion of sand; and, (ii) increases in current speeds and changes in direction to create scour and localized erosion at the beach end of the breakwater and standing waves in the channel entrance at the seaward end of the breakwater. However, mitigation measures will be implemented (refer to previous section) to ensure that there are no indirect or long-term negative impacts associated with the harbor and landside infrastructure.

The planned flex-mat installation by ADB will be incorporated into the design of the harbor facility, so as not to waste this investment. The proposed UNDP coastal protection scheme will not be built for a couple of years, but is likely to focus on the strengthening of the coastal berm inland to withstand recurrent severe storm and cyclone impact. These works will not interfere with the MICRO investments, but form part of the general strategy to increase the island’s resilience to climate change impacts.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
During preparation, a Consultant was appointed to undertake a vulnerability assessment and comparison of various harbor layouts in various locations on the island, including the ‘do nothing’ alternative. This resulted in the recommendations to: (i) limit the investment to a small-scale boat harbor for access of fishing boats and small tenders only; and, (ii) to locate the new facilities at the location of the existing channel and turning basin, fronting the community, in order to avoid dredging and landside development impacts in a new location.

Two concept designs have been proposed near the existing village. These concept designs are being refined by the current design and supervision consultant to identify the most appropriate solution given the technical, environmental and social constraints. Modelling has been undertaken to help inform the detailed designs to mitigate vulnerabilities for maritime infrastructure (including to climate change and extreme weather events), as well as potential environmental impacts from the infrastructure. Design measures considered are listed in Section A.1.
Alternative locations and layouts for the landside infrastructure have also been considered, focusing on land access arrangements and avoiding damage to the beach berm / vegetation line.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Government of Tuvalu has delegated the delivery and management of MICRO to the Project Management Unit (PMU) which has been resourced with personnel specifically tasked to manage project implementation. As such, the PMU carries much of the institutional capacity to implement the Project and to monitor the works for technical compliance. The PMU does not currently have in-house safeguard specialists and capacity building will be necessary to ensure that they are able to monitor for compliance with the requirements of the ESMP, World Bank Policies and national legislation. This capacity is best delivered in the form of a national safeguards specialist for the PMU through the Ministry of Communications and Transport. Funding for this role has been incorporated into the project. Other parties to this ESMP who have monitoring or implementation responsibilities (Supervision Engineer, Contractor) will be required as part of the contract to be resourced with suitably experienced and qualified safeguard specialist. It is the responsibility of the Contractor and Supervision Engineer to ensure that they allocate budget lines to have the necessary tools and equipment for the mitigation and monitoring measures as stipulated in the ESMP. Budget line items will be provided in the bid documents Bill of Quantities (BoQ) to allow for the provision of adequate safeguards implementation, monitoring and training.

A draft CERC Operations Manual has been prepared for the project. In addition, a CERC-specific ESMF will be prepared before activation of the CERC component at the latest along with the final CERC Operations Manual. Category A activities will not be financed under the CERC.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Public consultations were undertaken during the preparation of the project and the feedback used to help inform the harbor size and location on Nanumaga, as well as the concept design. A series of public consultations and stakeholder meetings were held during April and June 2018 with the aim of providing meaningful consultation with stakeholder groups and to provide an opportunity for all parties to provide input into the Project. The meetings targeted three groups of stakeholders: (a) Government agencies, authorities and development partners in Funafuti; (b) NGOs and civil society groups; (c) the Nanumaga community members. Feedback provided during consultation was used to identify project impacts and benefits, as well as identify appropriate mitigation measures. The schedule of consultations are included within the ESIA.

The ESIA and ESMP have been disclosed in country through the PMU and through the Bank's external website. The safeguard instruments are disclosed in a language and format accessible to people, communities and civil society who may be interested in, or affected by, project activities to ensure sufficient understanding of the project activities, potential impacts and management arrangements, as well as the grievance redress mechanism.

B. Disclosure Requirements

<table>
<thead>
<tr>
<th>Environmental Assessment/Audit/Management Plan/Other</th>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
<th>For category A projects, date of distributing the Executive Summary of</th>
</tr>
</thead>
</table>
The revised document has been disclosed in-country.

### C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

#### OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?  
Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?  
Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?  
Yes

#### OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?  
No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?  
NA

### The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?  
Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?  
Yes
All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?
Yes

Have costs related to safeguard policy measures been included in the project cost?
Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?
Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?
Yes

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