



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 25-Mar-2024 | Report No: PIDA37510



BASIC INFORMATION

A. Basic Project Data

Country Tuvalu	Project ID P181595	Project Name Additional Financing for Maritime Investment in Climate Resilient Operations II	Parent Project ID (if any) P177100
Parent Project Name Maritime Investment in Climate Resilient Operations II	Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 25-Mar-2024	Estimated Board Date 30-Apr-2024
Practice Area (Lead) Transport	Financing Instrument Investment Project Financing	Borrower(s) Tuvalu	Implementing Agency Ministry of Finance and Economic Development, Ministry of Public Works, Infrastructure Development and Water

Proposed Development Objective(s) Parent

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.

Components

- Component 1: Sectoral and Spatial Planning Tools
- Component 2: Integrated Climate Resilient and Safe Maritime Sector Solutions
- Component 3: Strengthening Maritime Sector Capacity in Tuvalu
- Component 4: Contingency Emergency Response
- Component 5: Central Project Management Office

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	42.00
Total Financing	42.00
of which IBRD/IDA	42.00
Financing Gap	0.00



DETAILS

World Bank Group Financing

International Development Association (IDA)	42.00
IDA Grant	42.00

Environmental and Social Risk Classification
Substantial

Other Decision (as needed)

B. Introduction and Context

Country Context

- Tuvalu is one of the most vulnerable Pacific Island Countries (PICs) to climate change and is included in the World Bank’s Harmonized List of Fragile and Conflict-Affected Situations (FCS).** Located approximately 1,100 km north of Fiji, Tuvalu consists of nine islands, with a total land area of around 26 km², scattered over 0.5 million km² of the western Pacific Ocean. Few of the islands are more than 800 m wide. Of the nine islands, three are reef islands (Nanumanga, Niutao, and Niulakita) and six are atolls (Funafuti, Nanumea, Vaitupu, Nui, Nukulaelae, and Nukufetau). The islands are low-lying with a maximum elevation of approximately 4.5 m. Roughly half of Tuvalu’s population of 11,000 lives on the main atoll, Funafuti. The remaining population is distributed across the other eight islands and atolls, each with one or two villages. The majority of Tuvalu’s population live on land less than 1 m above sea level. These geographical features make Tuvalu extremely vulnerable to the impacts of climate change.
- Similar to other small island developing states (SIDS), Tuvalu is vitally dependent on access to well-functioning and reliable transportation systems, particularly the maritime transport system.** Most foodstuff (excluding local foods, such as fish, coconuts, and some fruits), building materials, and manufactured products, as well as critical emergency relief after natural disasters, are imported from Fiji to Funafuti and are distributed among the outer islands with interisland vessels. Domestic shipping connectivity is also critical for the populations on outer islands to access secondary and tertiary education and hospital services, which are only available in Funafuti or abroad. The interisland vessels visit each island with an average frequency of once every one to three weeks, depending on the length of the route. There is no viable alternative to these vessels as there is no airport or airfield in any outer islands and accordingly there are no domestic aviation services in the country.
- Funafuti is the main port for all domestic and international shipments from the region.** Funafuti port is the only international port in Tuvalu and has a role to receive imported cargo, including food supply and to store containers, which is critical to Tuvalu economy and society. The port consists of two concrete wharves (L-shaped jetties) and an unpaved cargo handling area. Currently, cargo including food items, construction materials, and fuel is shipped in from Fiji approximately every 23 days. The port also has a narrow boat ramp, which is used to



inspect smaller ships. However, the ramp is in poor condition with rust in many places. Moreover, due to the narrow width of the boat ramp, larger ships cannot be inspected or maintained at Funafuti and must journey to Fiji for these services. This is costly as maintenance of the country's four vessels makes up 60 percent of the Department of Marine Services' current operating budget.

4. **Climate change poses increasing threats to maritime infrastructure assets and operations in Tuvalu.** Sea level rise accelerates the rate of coastal erosion, which exacerbates the deterioration of harbor infrastructure as the foundation soil of the infrastructure displaces over time. More intense and frequent storm waves, extreme winds, and heavy precipitation will push the physical condition of small jetties and wharves beyond their limits and jeopardize key maritime operations such as near coast navigation. Other harbor infrastructure and utility facilities such as passenger terminals, warehouse storage, and electricity supplies are also exposed, increasing climate risks. For instance, previous investments in jetties and ramps in Nukufetau and Nanumanga have suffered significantly from the consequences of TC Pam in 2015 and TC Tino in 2020 as well as erosions, which have left the islands without access to adequate maritime infrastructure. This lack of infrastructure has resulted in damaged cargo and considerably impeded the off-loading of cargo, which is particularly critical to the distribution of emergency goods, especially after natural disasters. Furthermore, the off-loading of passengers, particularly the elderly and disabled, is impeded with people having to be carried across the reef by volunteers. Cargo is manually carried across the reef flat to and from the interisland vessel workboats. Building sufficient physical resilience to harbor infrastructures and facilities is paramount for Tuvalu.

5. **The new Tuvalu government continues to prioritize the investment in the maritime sector.** Tuvalu had a general election in January 2024 and a new government was formed in February 2024. The new government highlighted its priority in the maritime sector to reduce a development gap between the main island (Funafuti) and outer islands, incentivize the return of local populations, and avoid overcrowding in Funafuti.

C. Proposed Development Objective(s)

Original PDO

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.

Current PDO

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.

Key Results

Progress will be measured against the following PDO-level results indicators:

- (a) Identified planning tools being used to improve climate resilience and safety of maritime infrastructure (Number)
- (b) Improvement of climate resilience and safety in maritime infrastructure on Nanumanga (Percentage)
- (c) Improvement of climate resilience and safety in maritime infrastructure on Nanumea (Percentage)
- (d) Improvement of climate resilience and safety in maritime infrastructure on Nukufetau (Percentage)



- (e) Identified enabling environment solutions implemented (Number).

D. Project Description

Component 1: Sectoral and Spatial Planning Tools (US\$1.50 million)

6. 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 policy makers to make informed decisions based on the most accurate and up-to-date information available. This component consists of the following subcomponents:

- a. **Subcomponent 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 subcomponent 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.
- b. **Subcomponent 1.2: A health outreach campaign.** The project will provide support to the community to understand and manage the issues associated with a sustainable food supply in line with the Government's healthy food security strategy. The distances from Funafuti and dependence on infrequent ferry services mean that the outer island communities face challenges in ensuring a sustainable supply goods and food. Improved access is positive but developing locally grown fruit and vegetables will help protect against uncertain delivery schedules and is also likely to have health benefits through improved nutrition. Support may include advice from an agricultural specialist for a community garden, provision of training on suitable crops, production, and ongoing maintenance, and assistance from a health professional on nutrition and associated lifestyle conditions. A pilot health outreach campaign is currently being implemented in Nanumanga. This subcomponent will expand the health outreach campaign to Nukufetau, Nanumea and Nanumanga. Activities financed under this subcomponent include community health campaigns for the communities in Nanumea and Nukufetau.
- c. **Subcomponent 1.3: Technical assistance on maritime sector planning**
 - (a) 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 MPWIELMD and MTET. Activities under this subcomponent include data collection on physical inventory, freight and passenger traffic counts, safety, 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.
 - (b) Priority technical assistance to enhance planning capacity of the maritime sector in Tuvalu.



Component 2: Integrated Climate Resilient and Safe Maritime Sector Solutions (US\$80.00 million)

7. This component involves the design and construction of identified priority maritime access and 10 m workboat, construction of breakwaters to protect the channels and basins from wave action, jetties, small wharves, and 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:

a. Subcomponent 2.1: Nanumanga

- i. **Workboat harbor.** The provision of new safe berthing facilities for a 10 m workboat harbor
- ii. **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

b. Subcomponent 2.2: Nanumea

- i. **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)
- ii. **Associated infrastructure.** Upgrading of the access road between the harbor, the Town Center, and the rest of the island.

c. Subcomponent 2.3: Nukufetau

- i. **Workboat harbor.** The provision of new safe berthing facilities for a 10 m workboat harbor
- ii. **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

- d. Subcomponent 2.4: Maritime operation safety and resilience improvement.** This subcomponent will support activities that will improve climate resilience and safety of the maritime facilities and operations in Tuvalu. This includes provision of improved key maritime operation equipment such as near coast navigation system, to protect the maritime operations and facilities from climate risks including storm surge events and tropical cyclones. The subcomponent also includes provision of priority safety solutions and equipment to improve safety and resilience of maritime operations, which may include a 10 m workboat, a small crane, harbor improvements, and other equipment. A study on maritime safety improvement under Component 3 will determine the most suitable solutions to improve maritime safety and resilience for each harbor.



- e. **Subcomponent 2.5 Funafuti:** Climate resilient and safe maritime infrastructure will be improved at Funafuti Port. The Funafuti Port has two main functional uses including as a port to transfer cargo between land and sea, and as a warehouse where containers are stored. The following improvements will include the following:
 - i. **Pavement of the cargo handling area.** The 6,000 square meter cargo handling area will be paved with a suitable rigid pavement. Seawall improvements will be implemented to protect the pavement area from erosion.
 - ii. **Repair of warehouse/maintenance shed.** The proposed improvements will improve the resilience of warehouse to king tides and storm events.
 - iii. **Energy efficiency improvements.** Improvement to energy efficiency will include installation of high efficiency lights with dimmable drivers, solar lights, and a control system to enable a reduction in light levels when there are no ships in the port, as well as upgrading air conditioning units with a high efficiency split system.
 - iv. **Providing wharf operational equipment,** including cargo handling equipment.

Component 3: Strengthening Maritime Sector Capacity in Tuvalu (US\$5.00 million)

- 9. Possible activities under this component are as follows:
 - a. **Subcomponent 3.1: Implementation capacity building.** This subcomponent will finance activities that will improve the policy, management, and regulation of a climate-resilient and safe maritime infrastructure and provide support to address gender employment gaps and potential sexual exploitation and abuse and sexual harassment (SEA/SH) concerns related to project implementation. This subcomponent 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 and safer maritime investments.
 - b. **Subcomponent 3.2: Project management support.** This subcomponent 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)

- 10. This zero-sum component will finance response to an eligible crisis or emergency, as needed.

Component 5: Central Project Management Office (US\$2 million equivalent).

- 11. A component will support the continuation and maintenance of Central Project Management Office support. This component will (i) support the continuing operation of a CPMO within the Ministry of Finance (MOF); and (ii) strengthen the capacity of the Government of Tuvalu to provide implementation



support to this Project and other World Bank-financed or co-financed operations, including activation of emergency funding to respond to the COVID-19 pandemic. The CPMO will comprise international and national staff in project management, procurement, financial management, safeguards and monitoring & evaluation. Activities to be financed will include: (a) operating costs of the CPMO including remuneration of national and international personnel; (b) training and workshops for capacity building activities to be delivered by the CPMO; (c) small goods and equipment for functioning of the CPMO office; (d) financial audits; and (e) monitoring and evaluation. Technical specialists and coordinators needed by other projects will be financed separately by those projects.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

E. Implementation

Institutional and Implementation Arrangements

12. The Ministry of Public Works, Infrastructure Development and Water (MPWIDW) is the implementing agency of MICRO2, which is responsible for Components 1, 2, and 3 of the project. The Ministry of Finance and Economic Development is responsible for Components 4 and 5. Project Management Unit (PMU) was established under MPWIDW and manages day-to-day tasks of project implementation.

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APPROVAL

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