



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

Appraisal Stage | Date Prepared/Updated: 21-Sep-2018 | Report No: PIDISDSA25454



BASIC INFORMATION

A. Basic Project Data

Country Tonga	Project ID P161539	Project Name Tonga Climate Resilient Transport Project	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 20-Aug-2018	Estimated Board Date 20-Dec-2018	Practice Area (Lead) Transport & Digital Development
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance and National Planning	Implementing Agency Ministry of Infrastructure	

Proposed Development Objective(s)

Improve the climate resilience of the Recipient's transport sector, 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

Total Project Cost	27.25
Total Financing	27.25
of which IBRD/IDA	26.02
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	26.02
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IDA Grant	26.02
Non-World Bank Group Financing	
Counterpart Funding	1.23
Borrower	1.23

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

The Kingdom of Tonga (Tonga) consists of 169 Islands, 36 of which are inhabited, and a total population of around 107,000. The country lies in the South Pacific and stretches over a distance of about 800 kilometers from north to south, covering a total land area of 748 square kilometers with an Exclusive Economic Zone (EEZ) of about 700,000 square kilometers. Around three quarters of the population are based on the main island of Tongatapu, while other major islands and island groupings include ‘Eua, Ha’apai, Vava’u and the Niuas. Tonga’s location makes it one of the most geographically remote nations from major centers of economic activity in the world.

Around three quarters of the population are based on the main island of Tongatapu, while other major islands and island groupings include ‘Eua, Ha’apai, Vava’u and the Niuas.

Climate change is already impacting Tonga, with sea levels rising well above the global average, already having forced several communities to relocate and requiring regular reconstruction of local infrastructure. Since 1997 Tonga has experienced approximately 15 significant natural disasters. The most recent severe weather system to hit Tonga, Tropical Cyclone Gita (February 2018), caused widespread damage and losses across Tongatapu and ‘Eua. World Bank was instrumental in supporting the Government of Tonga with the Post Disaster Rapid Assessment for the cyclone. The total economic value of the effects caused by Tropical Cyclone Gita was estimated to be approximately Tonga Pa’anga \$356 million (US\$164 million), which is equivalent to 37.8 percent of the nominal gross domestic product (GDP) in Tonga. Tonga’s transport infrastructure and networks (land, maritime and aviation) suffered limited damage from the cyclone. Damage was concentrated in central Nuku’alofa in areas where port and airport operations are based. Damage (T\$2.3m, US\$1.01m) and losses (T\$0.8m, US\$0.35m) to the transport sector constituted 1 percent of total damage and losses from the cyclone. Notwithstanding the destroyed physical assets, the negative impact of the disaster will impact on overall economic conditions for several years to come.



Sectoral and Institutional Context

With its remote location, small population size and dispersed islands, Tonga faces many geographical challenges in developing and maintaining sustainable internal, regional and international transport and communication linkages. These linkages are crucial to the economic development and social well-being of its population. In terms of climate resilience, Tonga is ranked second in the world for disaster risk using an index combining exposure and vulnerability. The transport network faces a range of issues that increase vulnerability such as: (i) exposure to sea-level rise, storm surge, and wave action during cyclones and tsunamis; (ii) flooding and landslides associated with extreme rainfall events; (iii) damage from earthquakes; and, (iv) accelerated pavement deterioration due to extreme weather and rising water tables. Having a well-maintained and climate resilient transport system is vital for not only responding to these events through evacuations and getting emergency services to where they're needed, it is also important for Tonga's longer-term recovery through access to basic services and economic opportunities.

The recent Climate and Disaster Resilient Transport in Small Island Development States (SIDS) Report has shown that improved maintenance is the most efficient climate resilient transport policy and can help Tonga avoid 18 percent of well-being and asset losses due to extreme weather events, followed by more resilient construction standards. The 2013 report Challenging the Build-Neglect-Rebuild Paradigm recognized that the failure to manage and maintain infrastructure assets in Pacific Island Countries (PICs), including Tonga, has resulted in widespread premature deterioration of infrastructure to states such that it is very costly to rehabilitate. As described in the report, "every dollar of routine maintenance that is deferred will end up costing \$5 in repairs, or ultimately, \$25 in rehabilitation or replacement as the asset declines overtime." Accordingly, climate resilient construction and maintenance standards will be a focus of the TCRTP.

The Tonga Strategic Development Framework (2015-2025) provides an overarching framework for the long-term development of Tonga and identifies "more reliable, safe and affordable transport services on each island, connecting islands and connecting the Kingdom with the rest of the world by sea and air, to improve the movement of people and goods" as a key pillar for this development. On climate resilience, the 2016 Tonga Climate Change Policy notes the importance of resilient roads to the country, listing this as its second highest priority.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

Improve the climate resilience of the Recipient's transport sector and, in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency

Key Results

D. Project Description

1. TCRTP consists of the following four components that incorporate the four pillars of the Pacific Climate Resilient Transport Program Series of Projects (PCRTP SOP):
 - (i) **Component 1: Sectoral and Spatial Planning Tools (est. US\$ 0.75 million):** This



component involves technical assistance that will improve the way that climate change is addressed in Tonga's transport sectors and allows for the financing of updates to analytical and sector planning tools to enable policymakers to make informed decisions based on the most accurate and up-to-date information available. A program of sub-components is proposed:

- i. Conducting a road sector Climate Vulnerability Assessment.
- ii. Urban transport studies including Nuku'alofa road traffic modelling, road public transport options and investigation and design of cycleway options.
- iii. Upgrading the Transport Management System (TMS) information technology including conducting of trainings in relation to such system. The TMS will provide important statistics for monitoring compliance with regulations and standards, especially for ferry services and possibly aviation. System would be of suitable climate resilience to ensure monitoring during severe weather events.
- iv. Technical assistance through an obstacle limitation survey for Kaufana Airport, 'Eua.

(ii) **Component 2: Climate Resilient Infrastructure Solutions (est. US\$ 24 million).** This Component involves feasibility studies, design and construction of identified road, aviation and maritime assets to improve their resilience to climate-related hazards and/or events. The following sub-components are proposed:

- a. **Road sector infrastructure rehabilitation:** This sub-component would include:
 - i. Rehabilitation of a combination of main and community/agricultural roads across (Vava'u, and main island of Tongatapu as identified by the *Tonga National Roads Improvement 3-Year Plan (2015)*).
 - ii. As a pilot, combining rehabilitation/upgrading and emergency works with maintenance through innovative types of maintenance contracts (such as area-wide coverage, multi-year, combined periodic and routine maintenance, and limited performance-based criteria in Western Vava'u, 'Eua and Ha'apai). The contracts will be split into:
 - (1) rehabilitation and/or upgrade works (to bring these roads back to a fully maintainable standard) and emergency works if and as needed,
 - (2) routine maintenance works.

The IDA grant will finance the rehabilitation/upgrading costs, while the MOI Road Maintenance Fund will finance the routine maintenance costs.

Contracts in (i) and (ii) will include localised upgrades to increase climate resilience of vulnerable coastal and hilly roads throughout Tonga by improving coastal protection, drainage and slope stability.

- iii. Investigation, design and delivery of footpath upgrade works and other



road safety investments, at sites still to be determined.

iv. Assessment, design and supervision of the above-mentioned road sector infrastructure works.

b. **Maritime sector infrastructure rehabilitation.** This sub-component would include:

i. A variety of safety repair works at a number of outer island locations including Nafanua ('Eua), Pasivulangi (Niuatoputapu) and Futu (Niuafu'ou). The activities will be based on the recommendations of the *Assessment of Maritime Safety Conditions of Ports and Wharves (2017)* and the findings from investigation of Nafanua Port at 'Eua (October, 2017). These activities complement works that are already under procurement through the WB funded Tonga Transport Sector Consolidation Project (TSCP) in Taufa'ahau, Ha'apai and Halaevalu, Vava'u. Works will include repairs to sheet pile walls, breakwaters, pavements, concrete capping beams, replacement of fenders and bollards. Limited maintenance dredging at outer island ports to remove sediment deposits within the basin and docking areas is also included. Supervision of the maritime sector infrastructure rehabilitation works, and preparation of the maintenance dredging works.

c. **Aviation sector infrastructure rehabilitation.** This subcomponent would include:

i. Urgent resurfacing to the runway and apron at Salote Pilolevu Airport, Ha'apai, including reconstruction on pavement layers at localised soft spots, subsoil drainage as needed, and full line marking. Design and supervision of the resurfacing of the Ha'apai runway

(iii) **Component 3: Strengthening the Enabling Environment (est. US\$ 2.50 million).**

This Component will provide funding to support institutional and regulatory reforms for road sector asset management and maintenance, including measures to strengthen local capacity and to increase the sustainability of climate resilient investments under the project. In addition, this Component will help to strengthen coordination among relevant institutions, look at ways in which the road and maritime sector management can be improved. This sub-component would include:

a. **Project support team.** Providing technical and operational assistance through a Project Support Team to be housed in the MOI.

b. **Technical assistance.** Technical assistance to (i) support MOI on its institutional reform process started under TSCP, (ii) explore options for establishing a Maritime Maintenance Fund, (iii) update technical specifications applied by MOI for sealed roads, and create specifications for steep roads, and comprehensive maintenance specifications for all road types in Tonga, and (iv) strengthen the Ministry of Infrastructure's capacity to manage transport infrastructure and assets.

c. **Climate resilient material testing equipment.** Purchase of essential additional testing equipment for the MOI materials laboratory and provision of training to staff to operate.



- d. **Safety related technical assistance.** Provision of training to MOI, consultants and contractors on occupational health and safety (OHS) measures, transport safety campaign activities and safety audits of Tonga's road network.
- e. **Impact assessment.** Conducting beneficiary surveys, including surveys focusing on gender and people with disabilities, to assess the impact of the major works carried out under the project.
- f. **Gender based violence strategy.** Development and implementation of the gender-based violence management strategy including carrying out of a needs assessment and prevention and support services.
- g. **Gender informed driver licensing pilot.** Carrying out of education and safety courses as well as outreach programs on commercial drivers' license for women.

- (i) **Component 4: Contingency Emergency Response (est. US\$ 0.00 million).** Since PICs will remain vulnerable to climate change and severe weather events, even with the successful implementation of the first three components, supporting post-disaster recovery is an important feature of the PC RTP. 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

TC RTP is being prepared and will be implemented by a project support team (PST) within MOI. They were responsible for engaging a consultant to prepare the Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), stakeholder engagement plan and land assessment, and will also be responsible for implementation. They have considerable experience with the Bank's safeguards policies having implemented the Tonga Consolidated Transport Project (TSCP) over the last five years.

The Government of Tonga is establishing a Central Services Unit (CSU) to sit within the Ministry for Finance and National Planning. The CSU will provide services related to: (i) project preparation and implementation, and (ii) capacity building. Implementation of the project will be primarily managed by the TC RTP PST, who will draw on the CSU experts for advice on procurement, financial management (FM), safeguards, monitoring and evaluation (M&E) and contract management when the PST encounters complex cases.

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

Tonga's population is primarily Polynesian, with a literacy rate close to 99 per cent and a relatively low incidence of poverty. However, Tonga's small size, geographic dispersion and isolation, and limited natural



resources provide a narrow economic base. Agriculture, fishing and tourism account for most export earnings and it has a high dependency on external aid (approximately 15% of Gross National Income, GNI). Coastal resources are important to Tonga's economy and livelihoods. All sea resources and coastal areas 50 feet above the high tide watermark are Crown property and the rights to all resources (sand, dead coral, marine life) are vested in the Crown. Coastal areas include various ecosystems such as mangroves, coral reefs, sea grasses, beaches and diverse species that inhabit the coastal habitats. With its remote locations, small size and dispersed islands setting, Tonga faces many challenges in developing and maintaining sustainable internal (intra- and inter-island), regional and international transport and communication linkages, all of which are crucial to the economic development and social well-being of its population. The project includes works in three sectors: roads, maritime and aviation. Works include resurfacing/rehabilitation of existing roads on Vava'u, 'Eua, Ha'apai, Niuafo'ou and Tongatapu; completion of safety repair works at ports in Nafanua ('Eua); Pasivulangi (Niuatoputapu) and Futu (Niuafu'ou) which will include repairs to sheet pile walls, breakwaters, pavements and concrete capping beams, minor dredging to remove sediment deposits within the basin and docking areas; and urgent resurfacing of the Ha'apai runway and apron, including reconstruction in localized spots and full line marking.

G. Environmental and Social Safeguards Specialists on the Team

Wolfhart Pohl, Environmental Safeguards Specialist
 Rachele Therese Marburg, Social Safeguards Specialist
 Nathalie Suzanna Noella Staelens, Environmental Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The project is unlikely to cause any significant adverse environmental impacts and has been categorized as Category B under OP 4.01. Potential impacts are expected to be site-specific and few, if any, would be irreversible.</p> <p>An Environmental and Social Impact Assessment (ESIA) and an Environmental and Social Management Plan (ESMP) for all works has been prepared in compliance with World Bank Policy 4.01. For the Emergency component of the project, an ESMF has been prepared.</p> <p>The ESIA confirms that the impacts of the project are not expected to be significant, and can be readily</p>



addressed. Mitigation measures have been identified in the ESMPs which will be implemented throughout the life of the project, and also serve as the basis for the Contractors' ESMPs. Mitigation measures identified include: development of traffic management plans to minimise potential impacts to pedestrians and access; adherence to strict working hours; use of existing MOI facilities for laydown yards; use of best practice dredging and marine notification procedures; material sourcing from local quarries; and avoiding impacts to private assets such as crops and fences during clearance of the road reservation where possible, and implementing Land Clearance Procedure where impacts are unavoidable.

An ESMF for the CERC (Component 4) has been prepared to ensure that safeguards issues are considered in the event of an emergency. A CERC positive list has been developed which outlines eligible activities under this component including debris and hazardous waste removal, re-vegetation, provision of water, rehabilitation of water infrastructure; and transport of fuel. Mitigation measures include preparation of Environment plan for all activities, adopting measures to avoid or minimise collateral damage; disposal of waste in approved locations; stabilisation works to be supervised by a qualified engineer; and provision of appropriate health and safety equipment and training for workers. Detailed procedures for managing hazardous waste are also included.

Performance Standards for Private Sector Activities OP/BP 4.03	No	NA
Natural Habitats OP/BP 4.04	Yes	The ESIA confirms that the project will not impact any habitats of significance and there are no ecological communities of conservation value present at any project sites. However, the ESIA for the maritime works identified two key gaps which need to be resolved during the detailed design phase in order to ensure impacts to natural habitats are adequately managed. The ESMP requires an additional survey be undertaken to determine the location and volume of materials to be dredged at all sites and identify suitable stockpile locations on Government land; the completion of a survey of



		adjacent coral reef communities to assess options for coral relocation; and baseline water quality survey for monitoring purposes. This will inform the detail design process for dredging works. Residual risks are therefore unlikely.
Forests OP/BP 4.36	No	The project involves maintenance of existing road, aviation and port facilities. The ESIA confirms that impacts to forests are unlikely and this policy is therefore not triggered.
Pest Management OP 4.09	No	There will be no requirement to manage pests, purchase or use pesticides.
Physical Cultural Resources OP/BP 4.11	No	The physical works will be within the footprint of existing infrastructure and located in highly modified environments. The ESIA confirms that impacts to PCR are not anticipated.
Indigenous Peoples OP/BP 4.10	No	OP 4.10 is not triggered. Tongans are predominantly homogenous (Polynesian) and the project has been designed in accordance with cultural norms and practices. A separate Indigenous People's Plan will therefore not be prepared.
		No land will be acquired for any project component. The ESIA confirms that all works will be undertaken on Government owned or controlled land. If the need to use any private land arises in the future, voluntary lease arrangements will be agreed with the land owner. OP4.12 is therefore not triggered.
Involuntary Resettlement OP/BP 4.12	No	On the road component, all works will be contained within the existing road carriage way, contained within the wider road reservation. While some local land owners have been using this space informally to plant crops, the implementation of land clearance procedures is expected to avoid impacts. These are included in the ESMP and will include communication of project activities; highlight the need to harvest any existing crops in the road reservation, and avoid future planting in this area; requirements for the design consultant and road construction contractor to identify opportunities to avoid impacts to crops; consult with crop owners; relocate affected crops or fences where necessary; and clearly document all activities and agreements.
Safety of Dams OP/BP 4.37	No	The project does not include investments in dams or will affect, or be affected by, the operation of a dam or reservoir.



Projects on International Waterways OP/BP 7.50	No
Projects in Disputed Areas OP/BP 7.60	No

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 project involves the rehabilitation of existing roads, ports and aviation infrastructure. The social and environmental impacts associated with the Project include: health and safety (community and workers), potential employment opportunities, (domestic and to a lesser extent, foreign), short term change in access to property, potential clearance of assets such as crops and fences from road reservations, disturbances such as impacts to noise and air quality and maritime environments from dredging and coastal works. There are no sensitive receptors which will be significantly affected by works. Project benefits include improvements to passenger and pedestrian safety, waste and fuel management, storm water management, drainage, marine access, road conditions and access to markets.

All works will take place on government land and no land acquisition is necessary. While the need for additional sites is not anticipated, any use of private land will be through a freely negotiated lease arrangement. Suitable materials are available from the Ahononou quarry in Tongatapu, which hold all necessary permits, and will be transported to necessary sites by barge.

The ESIA for the maritime works identified two key gaps which need to be resolved during the detailed design phase. The ESMP requires that an additional survey is carried out to determine the location and volume of materials to be dredged at all sites, and identify suitable stockpile locations on Government land; undertake a survey of adjacent coral reef communities to assess options for coral relocation; and baseline water quality survey for monitoring purposes. The survey outcomes will be used to during the detailed design phase to further minimise impacts on marine resources.

There are no potential large scale, significant and / or irreversible impacts.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

No indirect or long term negative impacts are expected from future activities in the areas of project activities. Long term impacts are expected to be positive through the improvement in climate resilience of infrastructure in Tonga, as well as improved safety and access. Benefits are also expected to provide benefits to other sectors including tourism, agriculture, general commerce, as well as provide healthcare, education and social connectivity benefits.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

There are no feasible alternatives for project activities as works are based on the upgrade and improvement of existing roads, ports and runway. The “do nothing” option would fail to meet the project development objective.

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 TCRTP project is being prepared and will be implemented by a project support team (PST) within MOI. They were responsible for engaging a consultant to prepare the ESIA, ESMP, stakeholder engagement plan and land assessment, and will also be responsible for implementation. They have considerable experience with the Bank’s safeguards policies having implemented the Tonga Consolidated Transport Project (TSCP) over the last five years.

The Government of Tonga is establishing a Central Services Unit (CSU) to sit within the Ministry for Finance and National Planning. The CSU will provide services related to: (i) project preparation and implementation, and (ii) capacity building. Implementation of the project will be primarily managed by the TCRTP PST, who will draw on the CSU experts for advice on procurement, financial management (FM), safeguards, monitoring and evaluation (M&E) and contract management when the PST encounters complex cases.

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

Extensive public consultation was undertaken as part of project preparation with a total of 458 (308 men and 150 women) people attending 30 public meetings. These were held on each island where works will be undertaken including Tongatapu, Va’vau, Ha’apai, Eua and Niua. Information on the project was provided and stakeholder were invited to share their views. There is strong public support for the project, particularly in relation to the roads component. Ongoing consultation will be the responsibility of MOI and the PST. An initial focus will be on sharing project updates, particularly in relation to potential impacts on to informal crops which are planted in the road reservation. The Contractor will also be responsible for engagement activities during the construction phase.

Information disclosure is mandated by OP4.01 and the Bank’s Disclosure Policy. 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. MOI, via the PST, is responsible for managing information dissemination as well as overseeing public consultation

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 17-Aug-2018	Date of submission for disclosure 14-Sep-2018	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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"In country" Disclosure

Tonga
11-Sep-2018

Comments

<http://infrastructure.gov.to/category/allpublications/>



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?

No

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

CONTACT POINT

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APPROVAL

Task Team Leader(s):	Pierre Graftieaux
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Approved By

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Country Director:	Mona Sur	21-Sep-2018