

Project Administration Manual

Project Number: 49455-002
Grant Number: GXXXX
July 2019

Kingdom of Tonga: Integrated Urban Resilience
Sector Project

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
APFS	–	audited project financial statement
CBDRM	–	community-based disaster risk management
CDRUD	–	climate and disaster resilient urban development strategy
CEO	–	chief executive officer
EA	–	executing agency
EARF	–	environmental assessment and review framework
EMP	–	environmental management plan
IA	–	Implementing agency
ICB	–	international competitive bidding
MLNR	–	Ministry of Lands and Natural Resources
MOF	–	Ministry of Finance
MOI	–	Ministry of Infrastructure
MPE	–	Ministry of Public Enterprises
NCB	–	national competitive bidding
NUDSP	–	Nuku'alofa Urban Development Sector Project
NUIDP	–	Nuku'alofa Urban Infrastructure Development Plan
PAM	–	project administration memorandum
PIAC	–	project implementation assistance consultant
PIU	–	project implementation unit
PMU	–	project management unit
PSC	–	project steering committee
QCBS	–	quality- and cost-based selection
SOE	–	state-owned enterprise
TNIIP	–	Tonga National Infrastructure Investment Plan
TOR	–	terms of reference
TWB	–	Tonga Water Board
UIDP	–	urban infrastructure development plan
WAL	–	Waste Authority Limited
WASH	–	water, sanitation and hygiene

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Finance as the executing agency, and the Ministry of Lands and Natural Resources; Tonga Water Board; Waste Management Limited; and the Ministry of Infrastructure as implementing agencies are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by the Ministry of Finance as the executing agency, and the Ministry of Lands and Natural Resources; Tonga Water Board; Waste Management Limited; and the Ministry of Infrastructure as implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At grant negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the Grant Agreement. Such agreement shall be reflected in the minutes of the grant negotiations. In the event of any discrepancy or contradiction between the PAM and the Grant Agreement, the provisions of the Grant Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. The project will provide high priority urban infrastructure identified in the Tonga National Infrastructure Investment Plan (TNIIP), expanding on infrastructure development being undertaken in Nuku'alofa through the Nuku'alofa Urban Development Sector Project (NUDSP)¹, enhancing the delivery of public urban services, and building climate change and disaster resilience.

2. **Impact and Outcome.** The project is aligned with the following impacts: (i) living standards in Nuku'alofa improved, and (ii) resilience to existing extreme natural events and to the threat of climate change increased.² The project will have the following outcome: Nuku'alofa residents have access to improved, effective and climate resilient urban services and infrastructure³.

- (i) **Output 1: Effective flood risk management infrastructure implemented.** To reduce flood risk, the project will rehabilitate and provide new flood management and drainage infrastructure at seven flood prone locations throughout Nuku'alofa, comprising the central business district, Vuna road, Salote road, Fanga, Haveluloto, Tofoa and Sopus. The project will also assist the Ministry of Infrastructure to review the current Land Transport Division funding arrangements and to prepare and implement a review of tariff structures and charges to achieve and maintain full recovery of operations and maintenance costs for public flood management and drainage infrastructure. The project will also assist the Land Transport Division to prepare a 10-year asset management plan and will provide capacity building support to operate, repair and maintain the new drainage network, strengthen revenue collection and asset management
- (ii) **Output 2: Water supply service in Nuku'alofa improved.** The project will reduce non-revenue water through the rehabilitation and upgrading of Nuku'alofa's piped water distribution network and by improving Tonga Water Board (TWB) leak detection, monitoring, repair and maintenance capabilities. The project will also improve TWB service capacities by providing new field-testing equipment and vehicles and building capacity to use water supply models and field data to guide the planning and implementation of pipe distribution network upgrades. The project will also carry out a gender-sensitive review of the current TWB tariff structures and charges to achieve and maintain full recovery of operations and maintenance costs while maintaining community service obligations. The project will also assist TWB to prepare a 10-year asset management plan and to develop policies and processes to support women in the workplace.
- (iii) **Output 3: Public and environmental health enhanced.** The project will enhance septage and solid waste management and collection in Tongatapu by upgrading the Tapuhia septage and leachate wastewater treatment plant, constructing a new sanitary landfill cell, providing a new office and a mechanical servicing facility at

¹ The Nuku'alofa Urban Development Sector Project was approved by the Asian Development Bank (ADB) in September 2011. (ADB.2011. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grant and Administration of Grant to the Kingdom of Tonga for the Nuku'alofa Urban Development Sector Project*. Manila.)

² Government of Tonga. 2015. Tonga Strategic Development Framework 2015-2025. Government of Tonga. 2016. Tonga Climate Change Policy: A Resilient Tonga by 2035.

³ The design and monitoring framework is in Appendix 1.

Tapuhia sanitary landfill, and by procuring essential plant and equipment to expand waste operations, including waste collection trucks that will allow women to work as waste collectors for the first time. The project will assist WAL to improve its financial management capacity and will review the current WAL tariff structures and charges to achieve and maintain full recovery of operations and maintenance costs while ensuring that waste services are affordable and accessible to the poorest members of the community. Considering WAL is mandated to expand its operations to the outer islands, the project will assist WAL to explore possible economically and environmentally sustainable solutions for waste management in the outer islands, including the shipping of waste to Tapuhia. The project will also assist WAL to prepare a 10-year asset management plan and to develop policies and processes to support women in the workplace. Additionally, the project will support the government in the sustained delivery of a water, sanitation and hygiene (WASH) and menstrual hygiene public awareness program in schools, health centers and public buildings.

- (iv) **Output 4: Urban resilience strengthened.** In order to address long term resilience and sea level rise, the project will prepare a gender-sensitive Climate and Disaster Resilient Urban Development Strategy and Investment Plan for Greater Nuku'alofa area to guide further government urban planning and investments. At the community level, the project will implement a pilot gender sensitive community-based disaster risk management program which will involve Nuku'alofa communities, including women and girls, in the preparation of disaster risk management plans.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project readiness activities

Indicative Activities	Months							Who responsible
	May 2019	June 2019	July 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	
Advance contracting actions								MLNR, ADB
Establish project implementation arrangements								MLNR, ADB
Grant negotiations								
ADB Board approval								ADB
Grant signing								GOT, ADB
Government legal opinion provided								GOT
Government budget inclusion								GOT
Grant effectiveness								ADB

ADB = Asian Development Bank, GOT = Government of Tonga, MLNR = Ministry of Lands and Natural Resources.
Sources: Asian Development Bank and Government of Tonga.

B. Overall Project Implementation Plan

Table 2: Overall project implementation plan

Task Name	2019			2020				2021				2022				2023				2024				2025				2026	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A - DMF																													
Output 1 - Flood Mitigation																													
Nuku'alofa flood mitigation works - Package A																													
Nuku'alofa flood mitigation works - Package B																													
Capacity building																													
Output 2 - Sustainable water supply services																													
Piped network upgrade and rehabilitation																													
Service connection equipment and field training																													
Capacity building																													
Output 3 - Sustainable environmental sanitation services																													
TWMF office and service facility																													
TWMF treatment plant upgrade																													
Landfill cell #3 construction																													
Capacity building																													
WASH awareness programme implementation																													
Output 4 - Disaster resilience strengthened																													
CBDRM programme implementation																													
CDRUD strategy & investment plan prepared and agreed																													
Select candidate subprojects																													
Implement candidate subprojects																													
B - Management activities																													
Consultant selection and recruitment procedures for prokject implementation assistance																													
Provision of project implementation assistance																													
Procurement plan activities for various contract packages																													
Gender Action Plan implementation																													
Environmental Management Plan implementation																													
Communication strategy implementation																													
Inception, annual and midterm review																													
Project completion report																													

CBDRM = community-based disaster risk management; CDRUD = climate and disaster resilient urban development; TWMF = Tapuhia Waste Management Facility; WASH = water, sanitation and hygiene.

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

4. **Project executing and implementing agencies.** The Ministry of Finance (MOF) will be the Executing Agency (EA) and the Ministry of Lands and Natural Resources (MLNR) will be the coordinating implementing agency (IA). MLNR will appoint a project manager and provide the project management unit (PMU).

5. **Project steering committee (PSC).** The government will appoint a PSC. The PSC shall meet quarterly and provide strategic direction, guidance, and oversight of the project. The PSC is chaired by the Minister of the Ministry of Finance (MOF) and the deputy chairperson is the Deputy Prime Minister. Other members of the PSC include the Minister of MLNR, the Minister of the Ministry of Public Enterprises (MPE), the Minister of the Ministry of Infrastructure (MOI), co-opted by the Chief Executive Officer (CEO) of MLNR and other project stakeholders as required. The secretariat of the PSC will be the Project and Aid Management Division (PAMD) of the MOF. Additionally, the government will appoint a project technical working committee (PTWC) chaired by the Minister of MLNR. The deputy chairperson of the PTWC will be the CEO of MLNR and the members will be the CEO of MOF, the CEO of the MPE, the CEO of the MOI, the CEO of the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC), the CEO of the Ministry of Health (MOH), the CEO of the Ministry of Internal Affairs (MIA), the CEO of the TWB, the CEO of WAL, the Chief Operations Officer of the National Spatial Planning Authority Office (NSPAO); and the Attorney General. The secretariat will be the PMU. The composition of the PSC and the PTWC may, during the implementation of the project, be amended or expanded to include representatives from civil society organizations, women's associations, and other government agencies and public enterprises.

6. **Project management unit (PMU).** The PMU will be responsible for the overall implementation of the project including compliance with all policy actions, administration, disbursements, and maintenance of records. The PMU will (i) serve as the secretariat for the PSC; (ii) undertake project management, administration, and interagency coordination at the executive level; (iii) maintain project accounts; (iv) oversee the procurement process; (v) ensure the delivery of the Gender Action Plan; (vi) prepare quarterly project and annual progress updates and other reporting requirements; and (vii) prepare the project completion report to the government and ADB. In principle, the PMU will be responsible for day-to-day program implementation activities, report implementation progress, provide guidance and direction to the project implementation units (PIUs), ensure compliance with the provisions of the grant agreement and government policies and guidelines, project administration, preparation of grant withdrawal applications, and maintenance of records. The Minister of MLNR has delegated the CEO of MLNR as the project manager and MLNR Director of Natural Resources Management Division (NRMD) as the deputy project manager. The PMU will be the secretariat of the PTWC. The PMU will be formed with the staff the NRMD and will have at least a fulltime project assistant dedicated to the project.

7. **Project implementation assistance (PIA) consultants.** The PMU will be supported by project implementation assistance (PIA) consultants. The PIA consultants will report to the PMU project manager and will assist the PMU in delivering the project outputs, provide project analysis, planning, and design; oversee procurement documentation, tendering and evaluation; activities monitoring, and reporting; and will also provide cost and quality control services. Specific roles of the PIA consultants include:

- (i) Assist the PMU to strengthen the policy environment for delivery of urban services by (a) building capacity within PUMA to develop urban planning and management policies and to implement the NSPM; (b) reforming TWB and WAL tariffs for recovery of water supply and solid waste services operations and maintenance costs; and (c) mandating the development and implementation of urban infrastructure asset management plans.
- (ii) Assist TWB to provide effective, efficient, and sustainable water supply services in Nuku'alofa by (a) strengthening the technical capacity to reliably deliver water to all parts of the urban supply network through the monitoring of newly created supply zones providing improved bulk supply and pressure metering; (b) designing and assisting the implementation of a comprehensive leak detection and repair program to reduce non-revenue water from the current level of about 45%, to less than 25% by 2025; (c) developing consumer water meter replacement policies and replace defective consumer meters; (d) building financial management capacity particularly in the areas of revenue collection and billing; and (e) preparation of the TWB asset management plan.
- (iii) Assist WAL to provide sustainable solid waste services in Nuku'alofa by (a) building financial management capacity particularly in the areas of revenue collection and billing, and (b) and preparation of the WAL asset management plan.
- (iv) Assist the PMU to improve other municipal services within Nuku'alofa by (a) identifying potential candidate subprojects from the Urban Infrastructure Development Plan or from the TNIIP; (b) screening of the proposed subprojects following the candidate subproject eligibility criteria including the preparation of candidate subproject appraisal reports for approval by the PTWC and ADB; and (c) preparation of resettlement plans, and initial environmental evaluations for candidate subprojects approved by the PTWC and ADB.
- (v) Raise community awareness of municipal services through (a) a community awareness and education program covering municipal services issues including planning and development consents requirements, household responsibilities for managing solid waste (reduce, recycle, re-use), public health benefits of safe waste handling and disposal, and the responsibilities of the Nuku'alofa community as beneficiaries of urban services such as the need to pay for services; (b) assist TWB and WAL to improve their customer complaints mechanisms; (c) undertake public consultation on service standards, water conservation, and demand management; and (d) consult and encourage the participation of women's groups and community associations in urban planning and design issues.
- (vi) Assist the PMU to effectively manage the project. The PIA consultants will provide (a) project design and supervision of the core water supply and solid waste subprojects, (b) monitoring and reporting of project progress; (c) facilitate the timely delivery of the project in compliance with standards acceptable to the government and ADB and within the project budget (quality and cost control); (d) screening and preparation of resettlement plans, and initial environmental evaluations for candidate subprojects; (e) design and supervision of candidate subprojects; (f) administer contracts awarded under the project; (g) facilitate and monitoring the implementation of the gender action plan; and (h) provide other services to the project manager and PMU as necessary to deliver the project.

8. The recruitment of the PIA consultants will be the first project procurement activity and is expected to be completed before or soon after the project becomes effective. The PIA consultants will be required to liaise and coordinate, and in some cases, will work in other government agencies (“assigned agencies”) and public enterprises aside from the PMU.

Table 3: Responsibilities of the Project Implementation Organizations

Project Implementation Organizations	Management Roles and Responsibilities
Executing agency Ministry of Finance	<ul style="list-style-type: none"> • Coordinate with the IA the preparation of withdrawal applications and submit to ADB. • Responsible for maintaining separate project accounts, have all project accounts audited annually and sent to ADB. • Coordinate with the IA the preparation of withdrawal applications and submit to ADB.
Project Management Unit	<p>Supported by the PIA consultants, the PMU will:</p> <ul style="list-style-type: none"> • Serve as the secretariat for the PSC. • Undertake project management, administration, and interagency coordination at the executive level. • Maintain project accounts. • Oversee the procurement process. • Prepare quarterly project and annual progress updates and other reporting requirements. • Prepare the project completion report to the government and ADB. • Be responsible for the overall implementation of the project including compliance with all policy actions, administration, disbursements, and maintenance of records. • Be responsible for day-to-day program implementation activities, including the delivery of the GAP, report implementation progress, provide guidance and direction to the project implementation units, ensure compliance with the provisions of the grant agreement and government policies and guidelines, project administration, preparation of grant withdrawal applications, and maintenance of records.
Project Steering Committee	<ul style="list-style-type: none"> • Oversee, monitor and make key decisions on all aspects of project implementation. • Advise government on any issues raised or concerns and propose remedial actions. • Resolve any obstacles or impediments for project implementation. • Guide the executing and implementing entities (MOF and MLNR). • Provide coordination on policy issues. • Endorse candidate subprojects for inclusion in the project.
Implementing agency	<ul style="list-style-type: none"> • Responsible for day to day implementation of the project.

Ministry of Lands and Natural Resources	<ul style="list-style-type: none"> • Responsible for recruitment of project management and implementation consultants. • Preparing overall project implementation plan and consolidated annual work plan. • Preparing bid documents to comply with ADB requirements, evaluating bids, and awarding works, contract administration, and supervision. • Measuring works carried out by contractors and certifying payments. • Carrying out environmental assessments and PPMS. • Implementing and monitoring the GAP. • Ensuring compliance with grant covenants. • Preparing monthly reports. • Responsible for nominating and appraising candidate subprojects and development of detailed design and specifications. • Carrying out socio-economic monitoring surveys to assess project impact. • Procurement of equipment and services for sanitation infrastructure and community engagement and public awareness activities. • Ensure compliance with safeguards requirements.
Project Implementation Units <ul style="list-style-type: none"> • Land Transport Division within MOI • Tonga Water Board • Waste Authority Limited • National Spatial Planning Authority Office 	<ul style="list-style-type: none"> • Be responsible for day-to-day program implementation activities related to their particular output. • Participate in the detail design and in the implementation supervision of the project activities related to their particular output. • Participate in the monitoring and reporting of project progress. • Facilitate the timely delivery of the project in compliance with standards acceptable to the government and to ADB. • Facilitate the capacity building activities and benefit from the capacity support provided from the PIAC.
ADB	<ul style="list-style-type: none"> • Monitor and review overall implementation in consultation with the EA and IA including: project implementation schedule; actions required with reference to the summary poverty reduction & social strategy, gender action plan, environment management plan, and resettlement plan if applicable; timeliness of budgetary allocations and counterpart funding; project expenditures progress with procurement and disbursement, statement of expenditures when applicable; compliance with grant covenants; and likelihood of attaining project development objectives. • Participate in annual workplan discussions. • Responsible for administration for the selection of project management and implementation consultants in coordination with the IA.

ADB = Asian Development Bank; EA = executing agency; IA = implementing agency; GAP = Gender Action Plan; MOF = Ministry of Finance; MLNR = Ministry of Land and Natural Resources; PIA = project implementation assistance; PMU = project management unit; PPMS = project performance management system; PSC = project steering committee.
Source: Asian Development Bank.

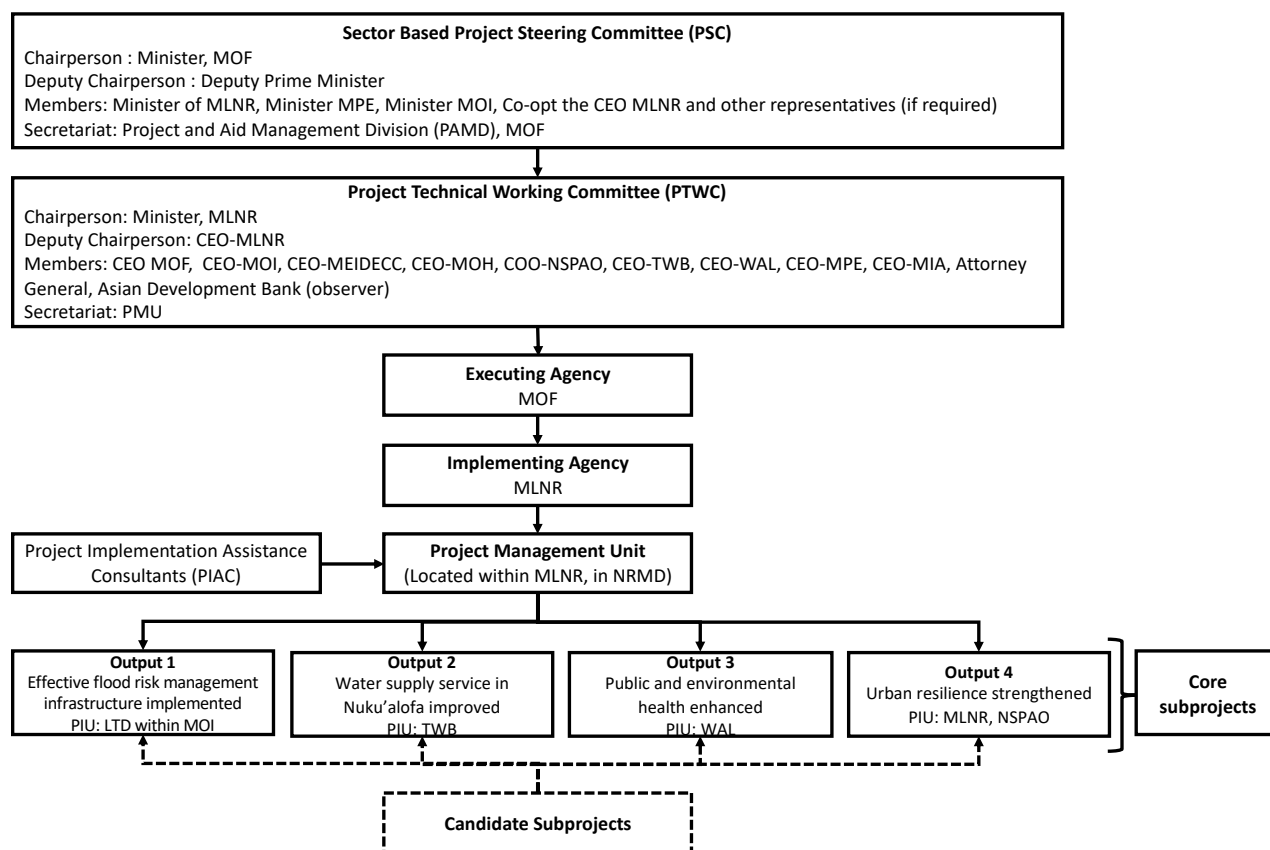
B. Key Persons Involved in Implementation

Table 4: Key Persons Involved in Implementation

Executing Agency		
Ministry of Finance	Officer's Name: Position: Telephone: Email address:	Ms. Pilimilose Balwyn Fa'otusia Chief Executive Officer (CEO) +676 23066 bfaotusia@finance.gov.to
Implementing Agency		
Ministry of Lands and Natural Resources	Officer's Name: Position: Telephone: Email address:	Ms. Rosamond C. Bing Chief Executive Officer (CEO) +676 775 8073 rosamond.bing@gmail.com
Asian Development Bank		
PAUW	Staff Name: Position: Telephone: Email address:	Ms. Emma Veve Officer-In-Charge +63 2 683 1630 eveve@adb.org
Mission Leader	Staff Name: Position: Telephone: Email address:	Ms. Maria Vicedo Ferrer Urban Development Specialist (DRM) +63 2 632 5068 mvicedoferrer@adb.org

C. Project Organization Structure

Figure 1: Project Organization Structure



IV. COSTS AND FINANCING

9. The project is estimated to cost US\$21.317 million (Table 1) including taxes and duties of US\$3.042 million equivalent.

10. The government has requested a grant⁴ not exceeding US\$18.275 million from ADB's Special Funds resources to help finance the project.⁵ The Government of Tonga will provide US\$3.042 million equivalent in local currency to finance taxes and duties. The Government of Tonga may request ADB for additional financing for the project at the project's midterm review given the large urban infrastructure investment requirements for Nuku'alofa. Detailed cost and financing tables are presented herein.

⁴ A country's eligibility for Asian Development Fund (ADF) grants under the revised grant framework is determined by its risk of debt distress. The latest debt sustainability analysis determined that Tonga had a high risk of debt distress and was therefore eligible to receive 100% of its ADF allocation as grants.

⁵ Land acquisition costs may be financed by ADB where all requirements under ADB's policies on Involuntary Resettlement are complied with, and the acquisition is undertaken and implemented in compliance with the ADB approved resettlement plans and framework. ADB grant funds may finance transportation and insurance costs of equipment financed by the project.

Table 5: Financing Plan
(US\$ million)

Source	Amount (US\$ million equiv.)	% of Total
Asian Development Bank (ADF Grant) ^a	18.275	85.7%
Government of Tonga ^c	3.042	14.3%
Total	21.317	100.0%

ADF = Asian Development Fund;

^a The ADB financing includes US\$5.88 million grant allocation from the Asian Development Fund disaster risk reduction financing mechanism.

^c Taxes and duties of \$3.042 million. Such amount does not represent an excessive share of the project cost. The government will finance taxes and duties of \$3.042 million through exemption

Source: Asian Development Bank and Government of Tonga.

A. Cost Estimates Preparation and Revisions

11. The cost estimates were prepared based on the preliminary design and technical analysis by the project preparatory technical assistance consultants and were refined by ADB project team and MOF and MLNR during fact-finding. The cost estimates were based on current market prices. The final estimates were reviewed by ADB and endorsed by MOF.

B. Key Assumptions

12. The following key assumptions underpin the cost estimates and financing plan:

- A. Price contingencies used an average of 1.6% on foreign exchange costs and 4.3% on local currency costs and includes provisions for potential exchange rate fluctuations under the assumption of a purchasing power parity exchange rate. The exchange rate used as of 13 May 2019 is US\$1.00 = T\$2.31.
- B. Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 6: Escalation Rates for Price Contingency Calculation

Item	2019	2020	2021	2022	2023	2024	2025	Average
Domestic rate of price inflation	5.3%	5.3%	4.6%	4.1%	3.5%	3.5%	3.5%	4.3%
Foreign rate of price inflation	1.5%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%

Source: Asian Development Bank.

C. Detailed Cost Estimates by Expenditure Category

Table 7: Detailed Cost Estimates by Expenditure Category

Item	\$'000			% of Total Base Cost (with taxes)
	Foreign Exchange	Local Currency	Total Cost	
A. Investment Costs ^a				
1 Civil Works	3,921	4,658	8,579	48.4%
2 Equipment	2,397	-	2,397	13.5%
3 Land Acquisition	-	121	121	0.7%
4 Consultancy Services	2,053	1,546	3,599	20.3%
4.1 Project management support and capacity development	1,503	1,436	2,939	16.6%
4.2 Other technical assistance support (Community Based DRM Program, preparation of climate and disaster resilient urban development strategy and investment plan)	550	110	660	3.7%
Subtotal (A)	8,371	6,325	14,696	82.8%
B. Taxes and Duties	2,093	949	3,042	17.1%
Subtotal Base Cost with Taxes (A+B)	10,464	7,274	17,738	100.0%
C. Contingencies ^b				
1 Physical	1,327	922	2,249	12.7%
2 Price	384	946	1,330	7.5%
Subtotal (C)	1,711	1,868	3,579	20.2%
Total Project Cost (A+B+C)	12,175	9,142	21,317	120.2%

^a In early-2019 prices as of February 2019.

^b Physical contingencies computed at 12.68%. Price contingencies computed at average of 1.6% on foreign exchange costs and 4.3% on local currency costs (using Asian Development Bank price escalation factors).

Source: Asian Development Bank.

D. Allocation and Withdrawal of Grant Proceeds

Table 8: ALLOCATION AND WITHDRAWAL OF ADF Grant PROCEEDS			
CATEGORY			
Number	Item	Amount Allocated in \$	Percentage and Basis for Withdrawal from the ADF Grant Account*
		Category	
1	Output 1 - Effective flood risk management infrastructure implemented (comprising civil works and goods)**	5,235,000	100% of total expenditure claimed*
2	Output 2 - Water supply service in Nuku'alofa improved (comprising civil works and goods)**	1,807,000	100% of total expenditure claimed*
3	Output 3 - Public and environmental health enhanced (comprising civil works and goods)**	3,934,000	100% of total expenditure claimed*
4	Land acquisition and resettlement**	121,000	100% of total expenditure claimed*
5	Consultancy Services	3,599,000	100% of total expenditure claimed*
6	Unallocated	3,579,000	
	Total	18,275,000	

* Excluding taxes and duties

** No withdrawals shall be made from the grant accounts in respect of civil works, equipment and materials, and land acquisition until the Project Implementation Assistance Consulting firm has been engaged by MLNR in accordance with the Procurement Plan.

Source: Asian Development Bank

E. Detailed Cost Estimates by Financier

Table 10: Detailed Cost Estimates by Financier

Item	Total Cost	ADB ADF		GOT	
	\$'000	\$'000	% of Cost Category	\$'000	% of Cost Category
A. Investment Costs ^a					
1 Civil Works	8,579	8,579	100.0%	-	0.0%
1.1 Output 1 - Effective flood risk management infrastructure implemented	5,140	5,140	100.0%	-	
1.2 Output 2 - Water supply service in Nuku'alofa	1,512	1,512	100.0%	-	
1.3 Output 3 - Public and environmental health	1,927	1,927	100.0%	-	
2 Equipment	2,397	2,397	100.0%	-	0.0%
2.1 Output 1 - Effective flood risk management infrastructure implemented	95	95	100.0%	-	
2.2 Output 2 - Water supply service in Nuku'alofa	295	295	100.0%	-	
2.3 Output 3 - Public and environmental health	2,007	2,007	100.0%	-	
3 Land Acquisition	121	121	100.0%	-	0.0%
4 Consultancy Services	3,599	3,599	100.0%	-	0.0%
4.1 Project management support and capacity development	2,939	2,939	100.0%	-	0.0%
4.2 Other technical assistance support (Community Based DRM, climate and disaster resilient urban development strategy and investment plan)	660	660	100.0%	-	0.0%
Subtotal (A)	14,696	14,696	100.0%	-	0.0%
B. Taxes and Duties	3,042	-	0.0%	3,042	100.0%
Subtotal Base Cost with Taxes (A+B)	17,738	14,696	82.8%	3,042	17.1%
C. Contingencies ^b					
1 Physical	2,249	2,249	100.0%	-	0.0%
2 Price	1,330	1,330	100.0%	-	0.0%
Subtotal (C)	3,579	3,579	100.0%	-	0.0%
Total Project Cost (A+B+C)	21,317	18,275		3,042	
% of Total Project Costs	100.0%		85.7%		14.3%

^a In early-2019 prices as of February 2019.

^b Physical contingencies computed at 12.68%. Price contingencies computed at average of 1.6% on foreign exchange costs and 4.3% on local currency costs (using Asian Development Bank price escalation factors).

Source: Asian Development Bank.

F. Detailed Cost Estimates by Outputs

Table 11: Detailed Cost Estimates by Output

Item	Total Cost	Output 1		Output 2		Output 3		Output 4	
	\$'000	\$'000	% of Cost Category	\$'000	% of Cost Category	\$'000	% of Cost Category	\$'000	% of Cost Category
A. Investment Costs ^a									
1 Civil Works	8,579	5,140	59.9%	1,512	17.6%	1,927	22.5%	-	0.0%
2 Equipment	2,397	95	4.0%	295	12.3%	2,007	83.7%	-	0.0%
3 Land Acquisition	121	121	100.0%	-	0.0%	-	0.0%	-	0.0%
4 Consultancy Services	3,599	790	22.0%	770	21.4%	909	25.3%	1,130	31.4%
4.1 Project management support and capacity development	2,939	790	26.9%	770	26.2%	909	30.9%	470	16.0%
4.2 Other technical assistance support (Community Based DRM, climate and disaster resilient urban development strategy and investment plan)	660	-	0.0%	-	0.0%	-	0.0%	660	100.0%
Subtotal (A)	14,696	6,146	41.8%	2,577	17.5%	4,843	33.0%	1,130	7.7%
B. Taxes and Duties	3,042	1,171	38.5%	546	18.0%	1,085	35.7%	240	7.9%
Subtotal Base Cost with Taxes (A+B)	17,738	7,317	41.3%	3,123	17.6%	5,928	33.4%	1,370	7.7%
C. Contingencies ^b									
1 Physical	2,249	928	41.2%	396	17.6%	752	33.4%	173	7.7%
2 Price	1,330	702	52.8%	206	15.5%	334	25.1%	88	6.6%
Subtotal (C)	3,579	1,630	45.5%	602	16.8%	1,086	30.3%	261	7.3%
Total Project Cost (A+B+C)	21,317	8,947		3,725		7,014		1,631	
% of Total Project Costs	100.0%		42.0%		17.5%		32.9%		7.6%

^a In early-2019 prices as of February 2019.

^b Physical contingencies computed at 12.68%. Price contingencies computed at average of 1.6% on foreign exchange costs and 4.3% on local currency costs (using Asian Development Bank price escalation factors).

Source: Asian Development Bank.

G. Detailed Cost Estimates by Year

Table 12: Detailed Cost Estimates by Year

Item	Total Cost	2019	2020	2021	2022	2023	2024	2025
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
A. Investment Costs ^a								
1 Civil Works	8,579	-	1,148	2,388	2,700	1,565	778	-
2 Equipment	2,397	-	1,067	880	450	-	-	-
3 Land Acquisition	121	-	-	121	-	-	-	-
4 Consultancy Services	3,599	220	1,071	1,049	862	307	90	-
4.1 Project management support and capacity development	2,939	220	1,026	754	557	292	90	-
4.2 Other technical assistance support (Community Based DRM Program, preparation of climate and disaster resilient urban development strategy and investment plan)	660	-	45	295	305	15	-	-
Subtotal (A)	14,696	220	3,286	4,438	4,012	1,872	868	-
B. Taxes and Duties	3,042	47	730	921	816	363	165	-
Subtotal Base Cost with Taxes (A+B)	17,738	267	4,016	5,359	4,828	2,235	1,033	-
C. Contingencies ^b								
1 Physical	2,249	34	509	680	612	283	131	-
2 Price	1,330	9	169	360	414	245	133	-
Subtotal (C)	3,579	43	678	1,040	1,026	528	264	-
Total Project Cost (A+B+C)	21,317	310	4,694	6,399	5,854	2,763	1,297	-
% of Total Project Costs	100.0%	1.5%	22.0%	30.0%	27.5%	13.0%	6.1%	0.0%

^a In early-2019 prices as of February 2019.

^b Physical contingencies computed at 12.68%. Price contingencies computed at average of 1.6% on foreign exchange costs and 4.3% on local currency costs (using Asian Development Bank price escalation factors).

Source: Asian Development Bank.

H. Contract and Disbursement S-Curve

Figure 2: Annual contract and disbursement S-Curve

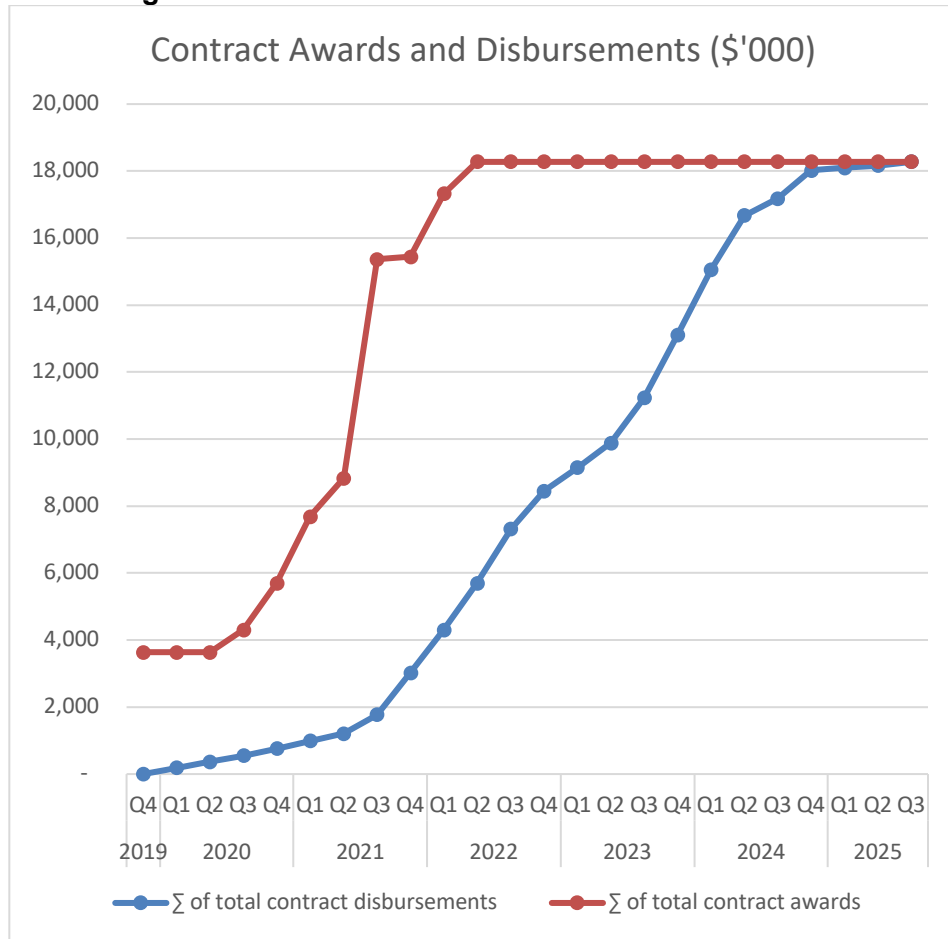


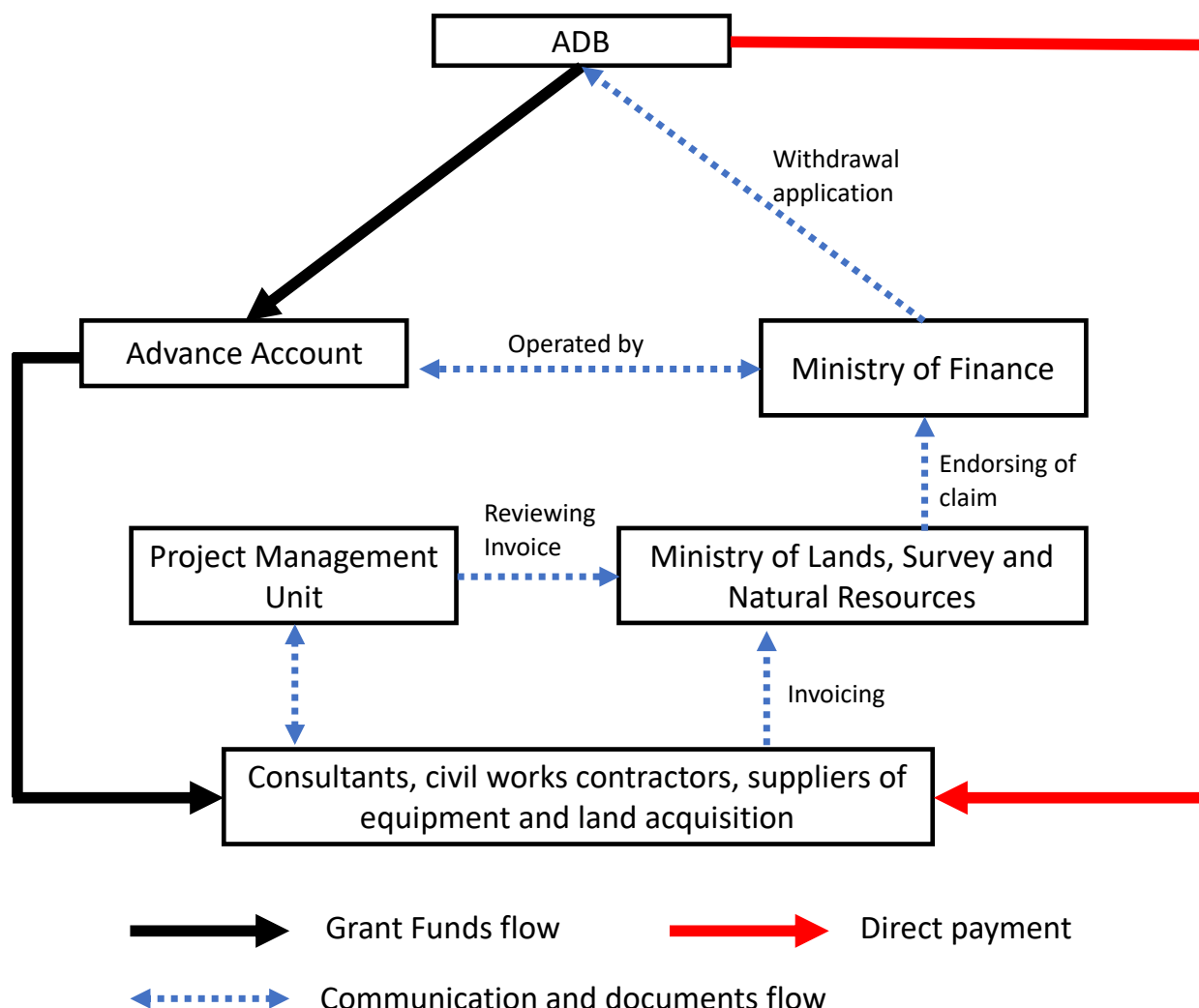
Table 13: Contract awards and disbursements per year

	2019	2020				2021			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Σ of total contract awards	3,639	3,639	3,639	4,303	5,702	7,687	8,830	15,361	15,445
Σ of total contract disbursements	-	182	364	546	761	984	1,207	1,775	3,028

	2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Σ of total contract awards	17,319	18,275	18,275	18,275	18,275	18,275	18,275	18,275
Σ of total contract disbursements	4,301	5,699	7,312	8,452	9,142	9,879	11,230	13,099

	2024				2025		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Σ of total contract awards	18,275	18,275	18,275	18,275	18,275	18,275	18,275
Σ of total contract disbursements	15,057	16,678	17,180	18,020	18,093	18,166	18,275

I. Fund Flow Diagram



V. FINANCIAL MANAGEMENT

13. Tonga has made solid progress in improving public financial management (PFM) since achieving internal self-governance in 1984, particularly in government financial accounting and reporting. Tonga's Public Financial Management Act 2002 (amended 2010) and the Public Finance Administration Regulations 1984 provide a comprehensive legislative framework for effective financial management and reporting.⁶ The 2014 Public Expenditure and Financial Accountability (PEFA)⁷ self-assessment, the latest assessment to date, shows significant improvement in Tonga's PFM systems since the first PEFA assessment in 2007. Improvements have been made to: (i) corporate planning; (ii) medium-term budgeting; (iii) streamlining the level of budget delegations to government agencies; (iv) the establishment of the Revenue Committee to strengthen administration and policy coordination following the 2011 review of Tonga's taxation

⁶ ADB. 2013. *Tonga Social and Economic Report*. Manila.

⁷ Government of Tonga. 2014. *Public Financial Management Performance Report*. Nuku'alofa.

regime; (v) the chart of accounts was updated; (vi) the “no new borrowing” policy until public debt levels are sustainable was adopted; (vii) the public procurement system was regularized and international best practice regulations adopted; (viii) annual and in-year financial reports are provided to Cabinet, Parliament, and to the general public; and (ix) the internal audit division is operating. These reforms have not only improved Tonga’s PEFA ratings—among the ten Pacific island countries that have completed PFM system reviews using the PEFA assessments, Tonga had the most number of high ratings of (“A” or “B”) compared to the rest of the Pacific—but its quality of policy and institutional ratings (measured through the biennial country performance assessments) and assessment of national systems ratings (a prerequisite for Australian budget support) have improved markedly as well.

14. Still, the government recognizes that there is more to be done to achieve a PFM system that helps promote macroeconomic stability, create an environment conducive for private sector growth, ensure the optimal use of Tonga’s productive resources, enhance accountability and good governance, and directly contribute to improving standard of living of Tongans. High priority reforms for the government between 2014–2019 include improving the macroeconomic framework for budget formulation; the upgrade of the financial accounting SunSystems, Tonga’s Integrated Financial Management Information System; and completion of ongoing work to produce a “Whole-of-Government” financial report that includes the financial statements of Tonga’s state-owned enterprises. ADB and other development partners such as the World Bank and the International Monetary Fund’s Pacific Financial Technical Assistance Center are providing support for reform implementation through technical assistance, policy dialogue, and annual budget support operations.

A. Financial Management Assessment

15. The financial management assessment (FMA) was conducted in August 2018 in accordance with ADB’s Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered MOF as the executing agency and MLNR as the implementing agency and considered the capacity of MLNR, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. The financial management capacity of MOF, based on the PEFA assessment and as the EA for 8 ADB’s ongoing projects, is considered adequate. MLNR also have experience from an ongoing ADB project and with the setup of a Project Management Unit arrangement, the financial management capacity is also considered adequate. It is concluded that the overall pre-mitigation financial management risk of the MOF and MLNR is moderate. MOF and MLNR also have the experience and capacity with using advance fund and statement of expenditures (SOE) procedures, so it is proposed that Statement of Expenditures (SOE) procedure be used. The MOF and MLNR have agreed to implement an action plan as key measures to address the deficiencies and the financial management action plan is provided in Table 17.

16. Key findings of the financial management assessment undertaken on MLNR are as described in Table 15:

Table 15: Summary of Financial Management Assessment of MLNR

Particulars	Conclusion
1. Implementing entity	MLNR is currently an implementing agency for an ongoing ADB-funded project and a PMU will be setup in MLNR, which will include a new project accountant position.

2. Funds Flow Arrangement	Funds flow arrangements are reliable, predictable and secure. MLNR will have the capacity to implement the proposed project.
3. Staffing	A PMU for the project will be setup in MLNR and will include a new project manager, a new qualified and experienced project accountant, amongst other positions.
4. Accounting Policies and Procedures	MLNR's follows MOF's Public Finance Management Act (Treasury Instructions) which has defined policies and procedures in place for accounting, budgeting, and auditing activities and maintains records of its fixed assets, with annual physical inspections, including for inventory.
5. Internal Audit	The government's Internal Audit Division is based in MOF and they can conduct audits on any government Ministries and Departments, if required.
6. External Audit	TAO audits all ADB-funded projects and their staff are well-versed with ADB's financial reporting and auditing requirements. TAO will also audit the project financial statements in accordance with ISSAIs.
7. Reporting and Monitoring	MLNR will be responsible for preparing the consolidated project financial statements in accordance with IPSAS.
8. Information systems	MLNR uses off-the-shelf Sunsystems accounting software which was customized to the Govt of Tonga's use and is used by all government ministries and departments.

ADB = Asian Development Bank; IPSAS = International Public Sector Accounting Standards; ISSAI = International Standards of Supreme Audit Institutions; MOF = Ministry of Finance; MLNR = Ministry of Lands and Natural Resources; PMU = Project Management Unit; TAO = Tonga Audit Office.

17. The results of the internal control and risk assessment are summarized in Table 16. Financial management risks need to be considered and updated throughout the life of the investment program. Risk mitigation measures shall also be updated accordingly.

Table 16: Financial Management, Internal Control and Risk Assessment

Risk	Risk Assessment	Mitigation Measures
A. Inherent Risk (the susceptibility of the project financial management system to factors arising from the environment in which it operates, such as country rules and regulations and entity working environment (assuming absence of any counter checks or internal controls))		
1. Country-specific risks - The PEFA assessment has shown improvement from the past. The weakness has been significant variances in expenditure. The audits are also done on a timely manner. The high-risk rating is due to debt distress and expenditure which can be caused by natural disasters.	M	GOT has taken action for prudent financial management including containing the public-sector wage bill.
2. Entity-specific risks – the roles and responsibilities of MLNR as IA for the ADB- funded project are to be clearly defined.	M	Project implementation structure and PMU roles and responsibilities have been defined and will be supported by the PIAC
Overall Inherent Risk	M	
B. Project Risk (the risk that the project's accounting and internal control framework are inadequate to ensure project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported).		
1. Implementing Entity – the project could face a capital cost overrun	M	Adequate physical and price contingencies have been provided in the cost estimates.

2. Funds Flow – foreign exchange risk	M	16% of the grant proceeds will remain unallocated as reserve for foreign exchange risks.
3. Staffing – a new project accountant will be recruited	M	A full time project accountant will be recruited as part of the PIAC
4. Accounting Policies and Procedures	N	Training will be provided on ADB's disbursements, financial reporting and auditing requirements.
5. Internal Audit	N	
6. External Audit – the Tonga Audit Office will be responsible for auditing the project financial statements	N	During project review missions, ADB will meet with the external auditor, to ensure that ADB's auditing requirements are met
7. Reporting and Monitoring – MLNR will be responsible for preparing the APFSs	M	Training will be provided to PMU on ADB's financial reporting and auditing requirements.
8. Information Systems	N	
Overall Project Risk	M	
Overall (Combined) Risk	M	

ADB = Asian Development Bank; APFS = audited project financial statement; M = moderate; MLNR = Ministry of Lands and Natural Resources; N = negligible or low; PMU = project management unit; TOR = terms of reference.

Table 17: Proposed Action Plan

Issue	Action	Timeline
1. The roles and responsibilities of MLNR as IA for the ADB- funded project are to be clearly defined.	The project implementation structure and PMU roles and responsibilities have been defined and will be supported by the PIAC.	Before Grant effectiveness Date. (Completed during Fact-Finding)
2. Appointment of project manager and project accountant	EA/IA will be responsible for timely appointment of the project manager. A full time project accountant will be recruited as part of the PIAC	Advance PIAC recruitment has been delegated to ADB and will be concluded within three months from the Grant effectiveness Date.
3. Training of PMU staff, including project manager	ADB to train PMU staff on disbursements, financial reporting and auditing requirements	Within three months from the Grant effectiveness Date, before the first disbursement is made.
4. ADB's financial reporting and auditing requirements	ADB review mission to meet with MOF's external auditor to discuss ADB's requirements to ensure compliance	During first project review mission after Grant Effectiveness and during 1st review mission of each year

ADB = Asian Development Bank; EA = executing agency; IA = implementing agency; MLNR = Ministry of Lands and Natural Resources; PIAC = project implementation assistance consultants; PMU = project management unit; TOR = terms of reference.

B. Disbursement

1. Disbursement Arrangements for ADB and ADB-administered cofinancier Funds

18. The grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),⁸ and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.⁹ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

19. Direct payment, reimbursement and advance account disbursement procedures will be used for civil works, equipment, land acquisition and consulting services. The PMU within MLNR will be responsible for (i) collecting and retaining supporting documents, (ii) preparing withdrawal applications (WAs) and disbursement projections, and (iii) requesting for budgetary allocations for counterpart funds. MOF will be responsible for reviewing and approving MLNR's WAs. Land acquisition documentation will be done through the Land Compensation Completion Report and through the use of signed offer letters and acknowledgement receipts.

20. MOF is the executing agency for 8 ongoing ADB projects in Tonga:¹⁰ (i) G0264/G0265-TON: Nuku'alofa Urban Development Sector Project (NUDSP); (ii) G0347/G0348/G0444/G0445/G0446/G0528/L3509/G0586/G0587/G0588-TON: Outer Island Renewable Energy Project; (iii) G0558-TON: Pacific Disaster Resilience Program; (iv) G0378-TON: Climate Resilience Sector Project; (v) G0389/G0390-TON: Cyclone Ian Recovery Project; (vi) G0575-TON: Cyclone Gita Recovery Project; (vii) G0624-TON: Systems Strengthening for Effective Coverage of New Vaccines in the Pacific Project; and (viii) G0640/G0641/G0642-TON: Renewable Energy Project. On the other hand, MLNR is the implementing agency for the ongoing G0264/G0265-TON: Nuku'alofa Urban Development Sector Project.

21. ADB's Client Portal for Disbursements (CPD)¹¹ system was rolled-out to Tonga in July 2016 and training was provided to MOF and MLNR staff. MOF's authorized signatories and MLNR's NUDSP project accountant are well-versed with ADB's CPD system, as they have been

⁸ The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>).

⁹ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning

¹⁰ ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Grant and Administration of Grant to the Kingdom of Tonga for the Nuku'alofa Urban Development Sector Project*. Manila; ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Grant and Administration of Grant to the Kingdom of Tonga for the Outer Island Renewable Energy Project*. Manila; ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Administration of Grant to the Kingdom of Tonga for the Climate Resilient Sector Project*. Manila; ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Grant and Administration of Grant to the Kingdom of Tonga for the Cyclone Ian Recovery Project*. Manila; ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loans, Policy-Based Grants, and Technical Assistance Grant for the Pacific Disaster Resilience Program*. Manila; ADB. 2018. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Kingdom of Tonga for the Cyclone Gita Recovery Project*. Manila; ADB. 2018. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Kingdom of Tonga for the Systems Strengthening for Effective Coverage of New Vaccines in the Pacific Project*. Manila; ADB. 2019. *Approval of Grant and Administration of Grants under the Pacific Energy Investment Facility to the Kingdom of Tonga for the Renewable Energy Project*. Manila.

¹¹ The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the recipient are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

using system since July 2016. NUDSP's project accountant works closely with MOF's authorized signatories on the WAs, so that they are correct and submitted to ADB in a timely manner.

22. **Advance fund procedure.** Separate advance accounts should be established and maintained by the MOF. The currency of the advance accounts is the US dollar. The advance accounts are to be used exclusively for ADB's share of eligible expenditures. The MOF, who administers the advance account, is accountable and responsible for proper use of advances to the advance account.

23. The total outstanding advance to the advance accounts should not exceed the estimate of ADB's share of expenditures to be paid through the advance accounts for the forthcoming 6 months. The MOF may request for initial and additional advances to the advance accounts based on an Estimate of Expenditure Sheet¹² setting out the estimated expenditures to be financed through the accounts for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the MLNR and MOF, in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance accounts.

24. **Statement of expenditure procedure.**¹³ The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

25. Before the submission of the first WA, MOF should submit to ADB sufficient evidence of the authority of the person(s) who will sign the WAs on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the MOF and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The MLNR and MOF should ensure sufficient category and contract balances before requesting disbursements. The use of ADB's CPD system is encouraged for submission of withdrawal applications to ADB.

26. No withdrawals shall be made from the grant accounts in respect of civil works, equipment and materials, and land acquisition until the firm supplying the project implementation consultants shall have been engaged.

2. Disbursement Arrangements for Counterpart Fund

27. The government will finance local taxes and duties under the project by exempting any procurement from such taxes and duties. The allocation for taxes and duties is shown as government counterpart funding in the cost estimate.

¹² Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

¹³ SOE forms are available in Appendix 7B of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

C. Accounting

28. The MLNR and MOF will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following International Public Sector Accounting Standard for cash-based accounting. The MLNR and MOF will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

29. The MLNR and MOF will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the MOF. The project assets will be reflected in the MLNR's accounts until the project is completed. When the Ministry transfers the assets to the utility operators, it will be done under the existing government and utility operators arrangements, including the necessary reflection of the transfers in the respective financial records.

30. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the grant were used only for the purposes of the project; and (iii) whether the recipient or executing agency was in compliance with the financial covenants contained in the legal agreements.

31. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

32. The government, MOF and the MLNR have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹⁴ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the recipient), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

¹⁴ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

33. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy of 2018.¹⁵ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹⁶

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

34. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The government, the MOF and the MLNR have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

35. **Advance contracting.** The government has requested to recruit the PIA consultants, via advance action to facilitate the timely commencement of the project. This will include the following recruitment steps: advertisement, shortlisting, request for proposal, evaluation and negotiations.

B. Procurement of Goods, Works, and Consulting Services

36. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time).

37. International Competitive Bidding (ICB), National Competitive Bidding (NCB) and Shopping modalities of procurement will be utilized depending on the relevant thresholds stated in the Procurement Plan.

38. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

39. All consultants, nongovernment organizations (NGOs) and civil society organizations (CSOs) will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹⁷ The PMU will follow national labor regulations and is expected to offer equal opportunities to women. The terms of reference for all consulting services are detailed in Section D.

40. MLNR will recruit the PIAC consultants. A signed delegation matrix outlining the responsibilities of MFNP and ADB for consultant selection has been signed by. ADB will support the recruitment process including the advertisement, tender and evaluation stages. MFNP will

¹⁵ Access to Information Policy: <https://www.adb.org/documents/access-information-policy>

¹⁶ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

¹⁷ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

remain solely responsible for negotiating and signing the consulting services contracts, however, ADB may provide support, upon request.

41. An estimated 409 person-months (70 international, 307 national) of consulting services are required to (i) facilitate project management and implementation, (ii) strengthen the institutional and operational capacity of the IA, MLNR (including the NRMD and the NSPAO), MOI, TWB, and WAL, (iii) prepare in collaboration with the government a climate and disaster resilient urban development strategy and investment plan, (iv) implement a WASH awareness program, and (v) implement a pilot community based disaster risk management plan.

C. Procurement Plan

PROCUREMENT PLAN

Basic Data

Project Name: Integrated Urban Resilience Sector Project	
Project Number: 49455-002	Approval Number:
Country: Tonga	Executing Agency: Ministry of Finance
Project Procurement Classification: B	Implementing Agency: Ministry of Lands and Natural Resources
Procurement Risk: Moderate	
Project Financing Amount: \$ 21.17 million ADB Financing: \$18.275 million Non-ADB Financing: \$3.042 million	Project Closing Date: (Grant closing date) March 2026
Date of First Procurement Plan: 28 / 08 / 2019	Date of this Procurement Plan: 31 / 05 / 2019

A. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods, works and services.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	Greater than or equal to \$3,000,000	Prior Review
International Competitive Bidding for Goods	Greater than or equal to \$1,000,000	Prior Review
National Competitive Bidding (NCB) for Works	Between \$300,001 and \$2,999,999	First subject to prior review, post review thereafter
National Competitive Bidding for Goods	Between \$300,001 and \$999,999	First subject to prior review, post review thereafter
Shopping for Works	Below \$300,000	Post Review
Shopping for Goods	Below \$300,000	Post Review

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	PIAC recruitment to be delegated to ADB as detailed in PAM. Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) consultant's recruitment, as detailed in PAM
Quality Based Selection (QBS)	
Consultants' Qualifications Selection (CQS)	Community Based Disaster Risk Management Program, Consultant's recruitment, as detailed in the PAM
Least-Cost Selection (LCS)	
Fixed Budget Selection (FBS)	

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
IURSP-W-01	Flood Mitigation Works – Roads – Lot A – CBD, Fanga, Haveluto, Tofoa	\$1.60 million	ICB Works	Prior	1S1E	Q1 2021	Prequalification of Bidders: N
	Flood Mitigation Works – General – Lot B – Sopus, Vuna road, Salote road	3.54 million					Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Small Works
IURSP - G-01	Waste collection equipment	\$1.38 million	ICB Goods	Prior	1S1E	Q3 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Goods

CBD = Central business district

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
IURSP - CS-01	Project implementation assistance consultants	\$2.94 million	QCBS	Prior	Q2 2019	FTP	Assignment: International Quality-Cost Ratio: 80:20 Advance Contracting: Y Comments:
IURSP-CS-03	CBDRM consulting NGO/firm	\$0.11 million	CQS	Prior	Q2 2020	STP	Assignment: National Quality-Cost Ratio: 80:20 Advance Contracting: N Comments: NGOs
IURSP-CS-02	CDRUDSIP consulting firm	\$0.55 million	QCBS	Prior	Q1 2020	FTP	Assignment: International Quality-Cost Ratio: 80:20 Advance Contracting: N Comments:

CBDRM = Community based disaster risk management; CDRUDSIP = Climate and disaster resilient urban development strategy and investment plan; NGO = Non-governmental organization; QCBS = Quality & Cost Based Selection; CQS = Consultants' Qualifications Selection; FTP = Full Technical Proposal; STP = Simplified Technical Proposal

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review [Prior/ Post/Post Sampling]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
IURSP-W-02	Tapuhia WWTP upgrade – works and goods	\$0.89 million	1	NCB Works	Prior	1S1E	Q2 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Small Works

IURSP-W-03	TWMF office and service facility – works and goods	\$0.29 million	1	Shopping	Post		Q3 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Shopping
IURSP-W-04	Tapuhia – Cell #3 construction - works	\$0.75 million	1	NCB Works	Prior	1S1E	Q1 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Small Works
IURSP - G-02	Vehicle, 4x4, utility, twin cab – 5 nos.	\$0.15 million	1	Shopping	Post		Q1 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Shopping
IURSP - G-03	Vehicle, 4x4, utility with service body – 2 nos.	\$0.08 million	1	Shopping	Post		Q2 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Shopping
IURSP - G-04	Drain cleaning equipment & parts	\$0.07 million	1	Shopping	Post		Q1 2021	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Shopping
IURSP - G-05	Water service, field test units	\$0.20 million	1	Shopping	Post		Q2 2020	Prequalification of Bidders: N Domestic Preference

								Applicable: N Advance Contracting: No Bidding Document: Shopping
IURSP - G-06	Landfill operation equipment	\$0.52 million	1	NCB	Post	1S1E	Q3 2020	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Goods

TWMF = Tapuhia waste management facility; WWTP = Waste water treatment plant

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments

B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Comments
IURSP W-05	Upgrade and rehabilitate water supply pipe network	\$1.52 million	3	NCB works	Prior	1S1E	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: No Bidding Document: Small Works

D. Outline Consultant's Terms of Reference

1. Project Implementation Assistance Consultants

42. A total of 6 international consultants and 7 national consultants will be engaged for a total of 57 person-months of international input and 240 person-months of national input. The international consultants will include (i) a team leader/municipal engineer (24 person-months intermittent inputs for detailed water supply, non-revenue water programs, waste management facilities and drainage planning, design and contract management, and asset management); (ii) a disaster risk management/climate change specialist (9 person-months intermittent inputs for subproject design assistance, strategic planning assistance and CBDRM guidance); (iii) an environmental sanitation/solid waste specialist (6 person-months intermittent inputs for subproject selection assistance, detailed design, and contract management and WASH awareness program support); (iv) an environmental specialist (6 person-months intermittent inputs to provide technical support to the PMU, build environmental assessment and management capacity within MLNR, and to assist in the practical implementation of environmental plans, controls and monitoring for contracted civil works); (v) a social safeguards/gender specialist (6 person-months intermittent input) to support the PMU and PIU's in implementing, updating and monitoring the project's Gender Action Plan (GAP); and (vi) a financial/revenue specialist (6 person-months intermittent inputs) to support the PIUs strengthen billing and revenue collection, review/update financial procedures and prepare tariff reviews.

43. The national consultants will include: (i) a project engineer who will also act as deputy team leader/project engineer for all subproject designs, scheduling, contracting and civil works implementation (full-time for 66 person-months); (ii) a social safeguards/gender specialist (30 person-months intermittent input); (iii) an environmental specialist (12 person-months intermittent inputs, to support the PMU, build environment assessment and management capacity within NRMD); (iv) an accounting/financial management specialist (6 person-months intermittent inputs); (v) a revenue generation specialist (to provide 6 person-months of intermittent input primarily in the Land Transport Division of MOI, TWB and WAL subprojects); (vi) a senior construction supervisor to manage subproject civil works contracts, monitor contract safeguards and monitor contract expenditure; and (v) an office assistant/accounting officer (full-time for 66 person-months). The PIA consultant staffing schedule is set out in Table 18.

Table 18: PIA Consultant (PIAC) Staffing Schedule (person months):

Position/ Inputs	Total	2019	2020	2021	2022	2023	2024	2025
International Consultants								
Team Leader/WS-Drainage Engineer	24	2	6	6	4	2	2	2
Climate Change/DRM Specialist	9		3	3	3			
Environmental Sanitation/SW Specialist	6		2	2	2			
Environmental Specialist	6		2	2	1	1		
Social Safeguards/Gender Specialist	6		1	1	1	1	1	1
Financial/Revenue Specialist	6		2	2	2			
Sub-Totals	57	2	16	16	13	4	3	3
National Consultants								
Deputy Team Leader/Project Engineer	66	2	11	11	11	11	11	9

Position/ Inputs	Total	2019	2020	2021	2022	2023	2024	2025
Social Safeguards/Gender Specialist	30	1	6	6	6	4	4	3
Environmental Specialist	12		4	4	2	2		
Accounting/Financial Management Specialist	6		2	2	2			
Revenue Generation Specialist	6		2	1	1	1	1	
Senior Construction Supervisor	54		9	10	10	10	9	6
Office Assistant/Accounting Officer	66	2	11	11	11	11	11	9
Sub-Totals	240	5	45	45	43	39	36	27
TOTAL	297	7	61	61	56	43	39	30

DRM = disaster risk management, SW = solid waste, WS = water supply.

44. All consultants under the project will be recruited using quality and cost-based selection (QCBS) procedures in accordance with ADB's Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (March 2013 as modified from time to time). An international consulting firm (57 person-months of international consulting services and 240 person-months of national) will be engaged as PIAC to assist the PMU in overall project management and implementation. The government has requested ADB assistance to recruit the PIA consultants.

a. Scope of works

45. The PIA consultants will report to the PMU project manager. The PIA consultants will assist the PMU in delivering the project outputs. The PIA consultants will:

- (i) Assist the PMU to strengthen the policy environment for delivery of urban services by (a) building capacity within PUMA to develop urban planning and management policies and to implement the NSPM; (b) reforming TWB and WAL tariffs for recovery of water supply and solid waste services operations and maintenance costs; and (c) mandating the development and implementation of urban infrastructure asset management plans.
- (ii) Assist TWB to provide effective, efficient, and sustainable water supply services in Nuku'alofa by (a) strengthening the technical capacity to reliably deliver water to all parts of the urban supply network through the monitoring of newly created supply zones providing improved bulk supply and pressure metering; (b) designing and assisting the implementation of a comprehensive leak detection and repair program to reduce non-revenue water from the current level of about 45%, to less than 25% by 2025; (c) developing consumer water meter replacement policies and replace defective consumer meters; (d) building financial management capacity particularly in the areas of revenue collection and billing; and (e) preparation of the TWB asset management plan.
- (iii) Assist WAL to provide sustainable solid waste services in Nuku'alofa by (a) building financial management capacity particularly in the areas of revenue collection and billing, and (b) and preparation of the WAL asset management plan.
- (iv) Assist the PMU to improve other municipal services within Nuku'alofa by (a) identifying potential candidate subprojects from the Urban Infrastructure Development Plan or from the TNIIP; (b) screening of the proposed subprojects following the candidate subproject eligibility criteria including the preparation of candidate subproject appraisal reports for approval by the PTWC and ADB; and (c) preparation of resettlement plans, and initial environmental evaluations for candidate subprojects approved by the PTWC and ADB.

- (v) Raise community awareness of municipal services through (a) a community awareness and education program covering municipal services issues including planning and development consents requirements, household responsibilities for managing solid waste (reduce, recycle, re-use), public health benefits of safe waste handling and disposal, and the responsibilities of the Nuku'alofa community as beneficiaries of urban services such as the need to pay for services; (b) assist TWB and WAL to improve their customer complaints mechanisms; (c) undertake public consultation on service standards, water conservation, and demand management; and (d) consult and encourage the participation of women's groups and community associations in urban planning and design issues.
- (vi) Assist the PMU to effectively manage the project. The PIA consultants will provide (a) project design and supervision of the core water supply and solid waste subprojects, (b) monitoring and reporting of project progress; (c) facilitate the timely delivery of the project in compliance with standards acceptable to the government and ADB and within the project budget (quality and cost control); (d) screening and preparation of resettlement plans, and initial environmental evaluations for candidate subprojects; (e) design and supervision of candidate subprojects; (f) administer contracts awarded under the project; (g) facilitate and monitoring the implementation of the gender action plan; and (h) provide other services to the project manager and PMU as necessary to deliver the project.

46. The recruitment of the PIA consultants will be the first project procurement activity and is expected to be completed before or soon after the project becomes effective. The PIA consultants will be required to liaise and coordinate, and in some cases, will work in other government agencies ("assigned agencies") and public enterprises as indicated below.

Table 19: Assigned agencies for PIA consultants:

Position	Assigned Agency
International Consultants	
Team Leader/WS-Drainage Engineer	PMU, LTD, TWB
Climate Change/DRM Specialist	PMU
Environmental Sanitation/SW Specialist	PMU, LTD, TWB, WAL
Environmental Specialist	PMU, LTD, TWB, WAL
Social Safeguards/Gender Specialist	PMU, LTD, TWB, WAL
Financial/Revenue Specialist	LTD, TWB, WAL
National Consultants	
Deputy Team Leader/Project Engineer	PMU, LTD, TWB, WAL
Social Safeguards/Gender Specialist	PMU, LTD, TWB, WAL
Environmental Specialist	PMU, LTD, TWB, WAL
Accounting/Financial Management Specialist	LTD, TWB, WAL
Revenue Generation Specialist	LTD, TWB, WAL
Senior Construction Supervisor	PMU, LTD, TWB, WAL
Office Assistant/Accounting Officer	PMU

DRM = disaster risk management, LTD = Land Transport Division, PMU = project management unit, SW = solid waste, TWB = Tonga Water Board, WAL = Water Authority Limited, WS = water supply.

47. Specific tasks of the PIA consultants will include, but not be limited to:

a. Effective flood risk management infrastructure implemented.

- (i) Build technical capacity within LTD to operate, repair and maintain the Nuku'alofa drainage system.
- (ii) Prepare bid documents for the procurement of civil works and field equipment required for upgrades and repairs to selected existing road drainage sites and drainage at selected sites to alleviate major flooding urban areas and drainage outlets to the ocean/lagoon. Assist LTD to oversee these upgrades and repairs to the flood management drainage network.
- (iii) Review the current LTD funding arrangements to identify, assess, and recommend options to achieve and maintain full recovery of operations and maintenance costs, by 2025, for public flood management and drainage infrastructure ensuring that these services are affordable and accessible to the poorest members of the Nuku'alofa community. Assist LTD management to prepare submissions for approval to implement the amended tariff structures and charges. Assist LTD implement the revised tariff structures, as approved.
- (iv) In collaboration with the PMU and LTD, identify options for the longterm operation and maintenance of drainage facilities not located on roads to ensure they remain functional.
- (v) Assist LTD to prepare a 10-year asset management plan and to upgrade the LTD's annual asset management plan and strategies to ensure the funding of these plans for the flood management drainage network.
- (vi) Identify opportunities to foster private sector participation in the provision of operations and maintenance for flood management drainage network services in Nuku'alofa. Identify and assess opportunities for outsourcing specific LTD functions (e.g., equipment maintenance, drain cleaning and repair).

b. Water supply service in Nuku'alofa improved.

- (i) Assist TWB to establish a regular testing and monitoring program of supply zones within the Nuku'alofa water supply to deliver reliable and continuous water supplies, while maintaining a minimum residual pressure as agreed by TWB, to all areas serviced by the Nuku'alofa water supply.
- (ii) Build technical capacity within TWB to operate, repair and maintain the Nuku'alofa water supply.
- (iii) Assist TWB to identify the locations within the water supply zones that are not meeting the water supply service requirements of residual pressure and water flow and upgrade or repair the network in these areas, as required.
- (iv) Prepare bid documents for the bulk procurement of the materials (pipes, fittings and valves) and field equipment required for upgrades and repairs. Assist TWB to oversee these upgrades and repairs to the pipe distribution network.
- (v) Design and assist TWB to implement a comprehensive program to reduce non-revenue water from the current level of about 45%, to less than 25% by 2025.
- (vi) Assist the Utilities Board's integration of financial systems for TPL, TWB and WAL to improve the financial management capacity of TWB. Obtain the approval of the Utilities Board prior to commencing assistance.
- (vii) Review the current TWB tariff structures and charges. Identify, assess, and recommend options to achieve and maintain full recovery of operations and maintenance costs while ensuring that water supply are affordable and accessible to the poorest members of the Nuku'alofa community. Assist TWB management to prepare submissions for approval from the Utilities Board to implement the amended tariff structures and charges. Assist TWB implement the revised tariff structures
- (viii) Assist TWB to prepare a 10-year asset management plan and to upgrade the TWB's annual asset management plan and strategies to ensure the funding of these plans.
- (ix) Identify opportunities to foster private sector participation in the provision of water supply services to Nuku'alofa. Identify and assess opportunities for outsourcing specific TWB functions (e.g., equipment maintenance, pipe network repairs).
- (x) Upgrade TWB's numeric model of the Nuku'alofa water supply system capable of estimating residual pressures at key locations within the water supply network under a range of water supply demand scenarios. The model was developed using a public domain software platform (EPANET). Account for diurnal and season patterns in pattern. Calibrate the model using measured system flows and pressures.
- (xi) Develop capacity within TWB to build, calibrate, and refine numeric water supply models and use the models results together with field data and customer complaints to guide the planning and implementation of pipe distribution network upgrades.
- (xii) Assist TWB and the PMU to deliver a WASH awareness program promoting, but not limited to, water management, storage safety, water hygiene and demand management.

c. Public and environmental health enhanced.

- (i) Build technical capacity within WAL to upgrade, operate, repair and maintain the facilities provided at the Tapuhia Waste Management Facility (TWMF) and the collection services for solid waste and liquid wastes (septage).
- (ii) Prepare bid documents for the procurement of civil works and equipment required for the upgrading of TWMF facilities including the leachate/septage treatment plant, an office/equipment service building and an additional landfill cell. Assist WAL to oversee these upgrades and repairs to the TWMF facilities.
- (iii) Prepare bid documents for the procurement of equipment required for the enhancement collection services for solid waste and liquid wastes (septage). Assist WAL to oversee this equipment and train operators required.
- (xiii) Assist the Utilities Board's integration of financial systems for TPL, TWB and WAL to improve the financial management capacity of WAL. Obtain the approval of the Utilities Board prior to commencing assistance.
- (xiv) Considering WAL expansion of operations to the outer Islands, support WAL to explore possible economically and environmentally sustainable solutions for waste management in the outer islands, including the shipping of waste, waste to energy solutions, local engineered landfills etc. among the options.
- (xv) Review the current WAL tariff structures and charges. Identify, assess, and recommend options to achieve and maintain full recovery of operations and maintenance costs while ensuring that waste services are affordable and accessible to the poorest members of the whole Tonga communities. Assist WAL management to prepare submissions for approval from the Utilities Board to implement the amended tariff structures and charges. Assist WAL to implement the revised tariff structures.
- (xvi) Assist WAL to prepare a 10-year asset management plan and to upgrade the WAL's annual asset management plan and strategies to ensure the funding of these plans.
- (iv) Identify opportunities to foster private sector participation in the provision of water supply services to Nuku'alofa. Identify and assess opportunities for outsourcing specific WAL functions (e.g., equipment maintenance, operation of TWMF and operation of collection services).
- (v) Assist WAL and the PMU to deliver a WASH awareness program promoting, but not limited to, septic system operations and maintenance, waste minimization (reduce, re-use and recycle), and family hygiene.

d. Urban resilience strengthened.

- (i) Prepare bid documents to assist the EA and IA procure the services of a national, consulting and management community service organization (CSO) to review and implement the CBDRM. This CSO will be recruited using quality and cost-based selection (QCBS) procedures in accordance with ADB's Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (March 2013 as modified from time to time).
- (ii) Assist the PMU to oversee the detailed preparation and delivery of the CBDRM.

- (iii) Prepare bid documents to assist the EA and IA procure the services of an international, consulting organization (consultant) to prepare the Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Nuku'alofa. This consultant be recruited using quality and cost-based selection (QCBS) procedures in accordance with ADB's Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (March 2013 as modified from time to time).
- (iv) Oversee and monitor the preparation of the CDRUDSIP.
- (v) In consultation with the PMU and other project stakeholders, identify potential candidate subprojects from the TNIIP 2.
- (vi) Ensure that the proposed subprojects meet the candidate subproject eligibility criteria. Prepare feasibility reports and due diligence reports (DDR) of the proposed candidate subprojects for approval by the TWC and ADB.
- (vii) Prepare due diligence reports (DDR), including resettlement plans, initial environmental evaluations and financial and economic appraisals for the candidate subprojects approved by the TWC and ADB.
- (viii) Design and assist the PMU to implement endorsed candidate subprojects following the procedures outlined in Section E, Subsection b. *Subproject Design and Contract Administration* (see below).

e. Assist the PMU to effectively manage the project

a. *Project Administration and Monitoring*

- (i) Review and update the Project Administration Manual (PAM) including, but not limited to, the project implementation schedule and the project procurement plan within 3 months of initial fielding of the PIA consultants and thereafter annually. Copies of the updated PAM shall be provided to (i) all members of the EA, IA and PMU, and (ii) the ADB project officer.
- (ii) Update the EMP as necessary, including carrying out supplemental environmental assessments for additional subprojects appraised after grant approval
- (iii) Assist the PMU to prepare the submissions required to obtain a Cabinet Decision (CD) granting the project an exemption from government customs duties, taxes, levies and consumption tax in accordance with the project agreement signed by the government and ADB. Ensure the safe-keeping and availability of this CD document for the duration of the project, as it is required for the tax and duty free entry of all project goods and supplies into the country.
- (iv) Assist PMU to check the bona-fides and accuracy of all project documentation presented to authorities for tax and duty free entry of all project goods and supplies into the country.
- (v) Establish and maintain separate project accounts and records by funding source for all expenditures incurred on the project. Project accounts will follow international accounting principles and practices. Note that the EA, Ministry of Finance (MOF), will also maintain separate accounts for the project. The project accounts will be audited annually by an external auditor appointed by the MOF, with the audit report to be presented to the ADB project officer by the 31 December each year.
- (vi) Prepare draft Grant withdrawal applications for the payment of eligible project costs. Submit the draft withdrawal applications to the MOF for verification and sign-off by authorized signatories.

- (vii) Facilitate and monitor the implementation of the gender action plan.
- (viii) Ensure all contractors and consultants comply with the laws of Tonga, ADB's Safeguard Policy Statement, and ADB's Anticorruption Policy.
- (ix) Assist in staff training and environmental compliance during project implementation.
- (x) Provide orientation for PMU and all PIU personnel on ADB safeguard measures, including implementation of the environmental management plans (EMP) and resettlement plans.
- (xi) Provide training for PMU and PIU staff responsible for designing, implementing and monitoring safeguard measures.
- (xii) Assist with subproject staff training to ensure that environmental and social measures are well understood and implemented effectively.
- (xiii) In consultation with the PMU project manager, prepare: (i) quarterly progress reports in a format consistent with ADB's project performance reporting system (refer Appendix 1); (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan, and (d) updated implementation plan for the next 12 months quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project.
- (xiv) Assist the PMU Project Manager in the preparation of subproject completion reports in a manner satisfactory to Government of Tonga and ADB, and ensure as-built data, (such as as-built drawings, equipment operations and maintenance manual, operations and maintenance checklists, and warranty/guarantees), are collected and collated at the completion of each subproject.
- (xv) Identify the training needs in relation to procurement guidelines, contract administration and construction supervision and incorporate on-the-job training for PMU and PIU staff to address the training needs.
- (xvi) Provide other services to the project manager and PMU as necessary to deliver the project.

b. *Subproject Design and Contract Administration*

- (i) Assist the PMU in formulating quality criteria for design and construction of all works, equipment, materials and services and the selection of appropriate design standards, as required by the Building Code of Tonga (2005 as modified from time to time).
- (ii) Identify information required and organize for surveys and capture of all data necessary for the preparation of subproject procurement bidding documents.
- (iii) Prepare and complete technical designs, including drawings, bills of quantities, provision of detailed cost estimates and scopes of work for subprojects.
- (iv) Assist the PMU and PIUs prepare specifications for the purchase of equipment and materials.
- (v) Prepare draft bidding documents for subprojects following ADB's procurement procedures and using standard bidding documents and

guidelines. In accordance with the Project Procurement Plan, submit the draft bid documents to the PMU and ADB for review and update the bid documents in response to comments and suggestions provided by the PMU and ADB.

- (vi) Ensure that subproject specific environmental and social safeguards measures are incorporated into contract documents.
- (vii) Assist the PMU to procure goods, works, and consultancies in accordance with ADB *Procurement Guidelines* (April 2015 and as updated from time to time) and *Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers* (March 2013 and as updated from time to time).
- (viii) Evaluate bids and prepare bid evaluation reports including recommendations for contract awards.
- (ix) Prepare the necessary documentation for contract signing and contractor mobilization.
- (x) Review contractor construction schedules, and provide overall supervision of construction and quality control on works, the supply and delivery of equipment and contractor/supplier training for PIU staff and operators.
- (xi) Administer subproject contracts including processing of progress certificates, review of extension of time claims, preparation of change orders and non-conformance notices, subproject implementation progress monitoring, and subproject cost monitoring.
- (xii) Provide effective and regular supervision of the works. Supervise quality control tests to ensure that the works are executed in accordance with established standards, criteria, specifications, procedures, and approved design and environmental aspects in compliance with the environmental management and monitoring plan and the construction schedule.
- (xiii) Review the design and construct contractor's drawings and calculations to check arrangements for optimized operation and maintenance and verify compliance with contract specifications.
- (xiv) Assist in observation and testing of materials and equipment.
- (xv) Supervise and evaluate the implementation of environmental mitigation and monitoring measures as specified in the EMP. This includes undertaking the environmental monitoring audits as prescribed.
- (xvi) Review the equipment manufacturers' drawings and calculations to check arrangements for optimized operation and maintenance and verify compliance with contract specifications.
- (xvii) Review the procurement and delivery program for each supply contract financed under the project to ensure compatibility and timely coordination with other contracts and civil works.
- (xviii) Develop and implement applicable procedures required to ensure adequate control of manufacturing, factory tests, delivery, and acceptance of materials and equipment. Assist with the unpacking and checking of the materials and equipment, follow up on the delivery of delayed components, and make claims.
- (xix) Assist with the review of proposals for equipment commissioning tests and trial operation plans.
- (xx) Respond to contractor requests for information in all matters related to interpreting contract documents, ground survey controls, quality control testing, and other matters relating to the contract under the project.
- (xxi) Maintain a permanent record of all quantities for payment and test results.
- (xxii) Identify potential risks to the Government of Tonga in the implementation of contracts, including cost over-runs, delays, and non-conformance with project specifications.

- (xxiii) Where necessary, coordinate design changes to achieve to-time and to-budget subproject delivery. Prepare change orders, and assist the project manager to negotiate with the contractor to implement the changes.
- (xxiv) Update the EMP as necessary, including carrying out supplemental environmental assessments for additional subprojects appraised after grant approval.
- (xxv) Monitor and supervise resettlement and other social impact mitigation activities, as defined in the RPs and RF.
- (xxvi) Update RPs in accordance with the provisions of the project RF.

c. *Identification, screening and selection of Candidate Subprojects*

- (i) Identify suitable candidate projects from high priority components of the Tonga infrastructure Investment Plan 2 (investments in Nuku'alofa only).
- (ii) Screen potential candidate subprojects following the candidate subproject selection criteria (refer Section VII of the PAM).
- (iii) Prepare initial environmental examinations (IEEs) and resettlement plans for candidate subprojects in accordance with the provisions of the project's environmental assessment and review framework (EARF) and the resettlement framework.
- (iv) Assess the feasibility of the candidate subprojects and prepare a feasibility assessment report and due diligence report for review by the PMU, and ADB. Feasibility reports will address each of the candidate subproject selection criteria.
- (v) Following the endorsement of the feasibility assessment and due diligence reports by ADB and the PMU, submit the feasibility assessment and due diligence reports to the project technical working committee (TWC) through the PMU for consideration. Assist the PMU, where necessary, to present the feasibility assessment and due diligence findings to the technical working committee and respond to queries from the technical working committee.
- (vi) Following the endorsement of a feasibility assessment and due diligence reports by the technical working committee, design and oversee the implementation of the endorsed candidate subproject following the procedures outlined in Subparagraph b. *Subproject Design and Contract Administration*, above.

2. Climate and Disaster Resilience Urban Development Strategy and Investment Plan Consultant

48. The Climate and Disaster Resilience Urban Development Strategy and Investment Plan Consultant will be recruited following ADB Quality and Cost-based Selection (QCBS) Guidelines for the Use of Consultants under the TUIRSP procurement plan. The Consultant will be contracted by the EA and will answer to the PMU based in the MLNR. The PIAC team will assist the PMU with the management of the implementation for this activity.

49. The purpose of the consultancy is to research, assess and prepare a long-term CDRUDSIP for Greater Nuku'alofa identifying measures to improve future climate change

resilience and support the development of sustainable infrastructure necessary to make the urban areas of Tonga more livable. The activities to be undertaken are the following:

- (i) The identification of gaps in existing national plans and strategies for Tonga on the Greater Nuku'alofa area with relation to climate change resiliency and mapping of past impacts and future climate change on the livability of Nuku'alofa;
- (ii) The identification of gaps in existing legislation and regulations and use/enforcement in relation to urban strategic planning, land use, land allocation, land acquisitions and land development controls relevant for urban infrastructure development in the Greater Nuku'alofa area and across Tonga
- (iii) The identification of obstacles in the use/enforcement of existing legislation and regulations in relation to urban strategic planning, land use, land allocation, land acquisitions and land development controls relevant for urban infrastructure development in the Greater Nuku'alofa area and across Tonga
- (iv) The assessment of how the identified gaps and obstacles could be sustainably addressed
- (v) The formulation of a strategic and investment action plan for the implementation of sustainable solutions for urban infrastructure development in the Greater Nuku'alofa area and across Tonga including costing and resource requirements
- (vi) The identification of capacity building needs for the stakeholders of the strategic and investment action plan
- (vii) The drafting of a long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa
- (viii) Implement a communication with Government, the commercial sector and affected communities
- (ix) Implement a monitoring framework.

50. The expected outcomes are:

- (x) Level of climate change risks and hazards for the Greater Nuku'alofa area (including maps) assessed
- (xi) Capacity in urban strategic planning, development of land use controls and enforcement, climate change vulnerability assessment and adaptation technologies of Government technical staff and other concerned stakeholders strengthened
- (xii) Adaptive measures to ensure the resilience of the Greater Nuku'alofa area
- (xiii) Prefeasibility study of the selected adaptive measures completed
- (xiv) Preliminary long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa area drafted for discussion with Government and stakeholders
- (xv) Improved and sustained preparedness of the Greater Nuku'alofa area to climate change.

51. The outputs are in line with the country's JNAP2 and will contribute to the country's climate change adaptation readiness. Specifically, the technical assistance (TA) will enable Tongan Government officers and stakeholders in the identification of most relevant land use planning,

land allocation, land acquisition and land development control adaptive measures for the climate resiliency of the Greater Nuku'alofa area.

52. The outputs shall be used by the Government of Tonga for enhancing the development and implementation of short- term and long-term strategies and investment plans for the climate change adapted urban infrastructure required for the future Greater Nuku'alofa area up to the year 2100. Moreover, outputs will be considered in future urban planning and land use design needs and specifications of all urban infrastructure elements, implementation of mitigating measures and the provision of improved environmentally safe and healthy urban living environments throughout the Kingdom.

53. The assistance will also provide an essential platform for future urban infrastructure development projects through the long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) and the identification of risks or obstacles that need to be overcome to ensure the likely success in land policy formulation and planning, the implementation of adaptation and land development control measures and enforcement and the contribution of financial and other resources needed

54. Once the CDRUDSIP Consultant is contracted, TUIRSP PMU will organize a kick-off introductory implementation workshop between all stakeholders involved to introduce the Consultant to the Government, commercial stakeholders and CSO and community representatives, to present the CDRUDSIP study activities and timeline and clarify the roles and responsibilities.

55. In general, to ensure a successful implementation and proper interaction with the Government counterparts and stakeholders, it is recommended that enough days be allocated on in-country site for the most relevant activities. It is also recommended to include a number of international, regional, or preferably, national experts or organisations in the proposed study team. It is mandatory for the Consultant to integrate a gender and social safeguards approach to the study activities.

56. The consultancy will be output based. The main deliverables will be as follow:

57. **Output 1:** The identification of gaps in the existing Land Act 1988 and the National Spatial Planning Management Act 2012 and existing regulations to support national infrastructure development plans and strategies in respect of land use planning, land allocations, land acquisition and land use development controls for the Greater Nuku'alofa area with relation to climate change resiliency and mapping of past natural disaster (cyclones, earthquakes, tsunamis and flooding) impacts.

58. **Output 1.1.** Review of available background documentation. In-country, the Consultant facilitate an inception workshop to meet with all Government stakeholders and collect relevant necessary information with a view to:

- (i) Review existing national laws and regulations relevant to land use planning, land allocations, land acquisition and land use development controls in Tonga.
- (ii) Review available Greater Nuku'alofa urban infrastructure documentation to assess potential vulnerabilities for natural disasters and climate change.

- (iii) Review available urban infrastructure operation and performance documentation including financial and operational indicators to identify past natural disaster and climate change related disruptions.
- (iv) Review the TUIRSP Flood Management Master Plan (FMMP)
- (v) Facilitate an Inception Workshop held under the auspices of the TUIRSP PMU and JNAP Working Group. Participants may include representatives from the Parliament, main Government agencies, the urban utilities (TPL, TWB and WAL), Chamber of Commerce, Local Government officers, electoral working groups and District/Village CSOs and community groups throughout Nuku'alofa.
- (vi) Prepare a Draft Study Inception Report.

59. The TA Consultant will liaise closely with the TUIRSP PMU, JNAP Working Group and CSOs/community groups and present the aims and objectives of the study, and a draft approach for the proposed workplan for discussion. This will be refined to reflect existing knowledge and ensure that duplication is minimized. When developing the study workplan the methodology will ensure that risk assessment is firmly based within the socio-economic context of Tonga.

60. **Output 1.2.** Study of the potential impacts of urban land planning, land allocations, land acquisitions and land use development controls on infrastructure. In consultation with main stakeholders, including the urban utilities (TPL, TWB and WAL) and based on information collected during field visits and visual inspections of the site as well as information such as GIS-based information available from the MLNR, the Consultant will map existing land allocations and land use in Nuku'alofa and evaluate any physical impacts on urban infrastructure. The Consultant will specifically:

- (i) Identify areas having already been impacted by natural disasters and adverse weather conditions in the recent years (2005 to 2020).
- (ii) Assess the existing staff capacities to understand and respond to land use planning, land allocations, land acquisition and land use development controls impacts on urban infrastructure and climate-related hazards.
- (iii) Assess the existing staff capacities to understand and respond to climate-related hazards
- (iv) Identify the areas of Nuku'alofa being the most vulnerable at risk to climate change impact.
- (v) Analyse how adverse weather conditions and potential climate change have impacted and are likely to impact Nuku'alofa. This analysis will lead to a definition of threshold criteria (i) for land use planning, land allocation, land acquisition and land use development controls, (ii) better understanding of the conditions that affected the operations of urban utilities currently and in the past.

61. During the site visits for activity 1.2, the Consultant will meet with relevant stakeholders, notably with representatives from the MLNR, MEIDECC and the urban utilities (TPL, TWB and WAL).

62. **Output 1.3.** Review and mapping of registered climate and extreme weather conditions. The Consultant will analyse meteorological and natural disaster trends and conditions over the

past decades (i.e. wind and cyclones, rainfall, waves, water levels, tsunamis and earthquakes). The Consultant will:

- (i) Review existing TUIRSP data and undertake a preliminary check study of non-cyclonic and cyclonic wind and wave conditions, tsunamis and earthquakes for Nuku'alofa based on available data and information and numerical modelling.
- (ii) Identify the major natural disasters and weather conditions issues for Nuku'alofa.
- (iii) Provide preliminary recommendations for the operability and infrastructure resilience of urban services in Nuku'alofa based on the results of climate change mapping.

63. This activity also includes on-the-job training/knowledge sharing with the technical staff of the National Spatial Planning Authority Office, MLNR and other Government authorities, commercial stakeholders and CSOs/Community groups involving them in the modelling, analysis and explaining the methods and results for climate change and natural disaster review.

64. Deliverable output 1:

- (i) Main findings of the review of background documentation including information on the relevance of existing plans and policies, the adequacy of current capacity to respond to climate change and natural disaster impacts, and the scale and scope of the economic and operational threats faced as a result of climate change and natural disaster.
- (ii) Mapping and analysis of the vulnerability of urban infrastructure and operations.
- (iii) Preliminary recommendations on adaptation needs and gaps for improved and more effective land use planning, land allocation, land acquisition and land use development controls in the Tongan context.

65. **Output 2:** Preparation of the long-term term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa together with public awareness materials and posters for a Government, stakeholder, community consultative confirmation process to ensure that a Process Roadmap for Government Approval of the Strategic and Investment Plan can be prepared and supported.

66. **Output 2.1.** Prepare the long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa. In-country the Consultant will collaborate closely with all Government counterparts and stakeholders to prepare the long-term Strategy and Investment Plan:

- (i) Prepare the Draft Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa.
- (ii) Submit the Draft Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa to ADB and the Government of Tonga for review and comment.
- (iii) Prepare support mapping and exhibition posters providing major information summaries and findings for the long-term Strategy and Investment Plan.
- (iv) Prepare the Final Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa.

67. Again, the TA Consultant will work closely with the TUIRSP PMU and JNAP Working Group to prepare and present the draft version of the Strategy and Investment Plan ensuring that these Government stakeholders and others they recommend are consulted and involved in owning the proposed strategies and investments.

68. **Output 2.2.** Facilitate an extensive Awareness Raising Program to promote the Strategic and Investment Plan. In consultation with the Parliament, main Government stakeholders, the urban utilities (TPL, TWB and WAL) and CSOs/community groups prepare and deliver a wide ranging awareness raising program to ensure that the residents of Nuku'alofa are fully cognizant of the long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP). The Consultant needs to schedule community presentations (in Tongan) and schedule question and answer working sessions (in Tongan) so that residents understand the impacts that an implementing roadmap may impose upon them. The Consultant will specifically:

- (i) Prepare support exhibition posters providing information summaries and findings for the long-term Strategy and Investment Plan for stakeholder and community workshops.
- (ii) Prepare a simple flyer or short booklet, in Tongan, providing information summaries and findings for the long-term Strategy and Investment Plan, for residents to consider, at home.
- (iii) Hold consultation presentations with stakeholders and beneficiaries. These may include the Parliament, main Government agencies, the urban utilities (TPL, TWB and WAL), Chamber of Commerce, Local Government officers, electoral working groups and District/Village CSOs and community groups throughout Nuku'alofa.
- (iv) After a short period (maybe 8 days to 2 weeks), schedule follow-up question and answer working sessions for all of the consultation presentation groups. Seek to have participants provide written questions and/or comments.
- (v) Analyse the feedback information from these consultation and question and answer working sessions to attempt to identify possible obstacles and bottlenecks for improved land planning and development controls supporting the delivery of future climate resilient urban infrastructure benefit a majority of Nuku'alofa residents.

69. The Consultant must seek to field team members for this Output 2.2 who fully understand cultural and socio-political issues that may affect Tongan societal attitudes towards the ability of the Crown, Parliament and Government Officers to enforce, without fear or favour, land allocation/acquisition issues affecting the future development of climate change resilient approaches and the construction, operation and maintenance of urban infrastructure providing disaster minimization benefits to a wide number of residents.

70. **Output 2.3.** Prepare the Process Roadmap for Government Approval of the Strategic and Investment Plan. The Consultant will analyse the consultations and feedback from the Output 2.2 activities to prepare a Process Roadmap for Government Approval of the Strategic and Investment Plan. The Consultant will:

- (i) Prepare the Draft Process Roadmap for the implementation and funding of the Final Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa.
- (ii) Submit the Draft Process Roadmap to ADB and to the Government of Tonga for review and comment.

(iii) Prepare the Final Draft Process Roadmap

71. This activity also includes on-the-job training/knowledge sharing with the technical staff of the National Spatial Planning Authority Office, MLNR and other Government authorities, commercial stakeholders and CSOs/Community groups involving them in the modelling, analysis and explaining the methods and results for climate change.

72. Deliverables output 2:

- (i) Main findings of the study presented as a Final Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP) for Greater Nuku'alofa
- (ii) Mapping and exhibition posters for stakeholder and community consultations
- (iii) Final study recommendations for a Process Roadmap for the implementation and funding of the Final Strategy and Investment Plan.

73. The following reporting of the study activities is required within the time schedule indicated.

No.	Report	Time Schedule (Months after contract signing)
1	Study Inception Workshop presentation	0.5 months
2	Draft Study Inception Report and Study Workplan	1.0 months
3.	Final Study Inception Report and Study Workplan	1.5 months
4.	Exhibition posters, simple flyer and/or short booklet for Study Mid-term Workshop	3.0 months
5.	Draft Study Mid-term Workshop and Consultations Report	6.0 months
6.	Draft Study Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP)	7.0 months
7.	Final Study Long-term Climate and Disaster Resilient Urban Development Strategy and Investment Plan (CDRUDSIP)	8.0 months
8.	Draft Process Roadmap for Strategy and Investment Plan	8.0 months
9.	Final Process Roadmap for Strategy and Investment Plan	9.0 months

74. The Consultant is expected to provide the services of a team that should ideally comprise the following competencies:

- Proven expertise in the design and implementation of adaptation plans and strategies for port infrastructure
- Proven expertise in analysing meteorological trends and conditions and mapping in consideration with climate change scenario and projections at national and regional levels
- Demonstrated experience in adaptation projects in Africa, preferably in Mauritius
- Demonstrated experience in assessing vulnerability and risk of coastal infrastructure to climate change impact, particularly with regards to ports

- Demonstrated experience in the project proposal drafting and mobilization of resources for the implementation of port adaptation activities, including relevant private sector actors, national and international financing
- Demonstrated experience in designing and delivering training for stakeholders to enhance climate change adaptation
- Excellent written and communication skills in English

75. The proposed consultant team Inputs is as follows:

Consultant Position	Input (in person months)
<u>International</u>	
Team Leader/Urban Planning Specialist	5.0
Climate Change Specialist	3.0
Communication/community Specialist	2.0
Anthropologist/Culture Specialist	3.0
<u>National</u>	
Deputy Team Leader/Urban Planner	6.0
Environmental/Climate Change Specialist	4.0
Social/Community/Gender/Safeguards Specialist	3.0
GIS/CAD Mapping Specialist	4.0
Legal Specialist	2.0
Office Assistant/Accounting Officer	8.0

3. Community Based Disaster Risk Management Program Consultant

76. The Community Based Disaster Risk Management Program (CBDRM) and associated Awareness Raising Campaign is one of the activities delivered under Output 4: Urban Resilience Strengthened. A Civil Society Organization (CSO) or a consortium of CSOs will be engaged to deliver the program.

77. **Implementation Arrangements.** A CSO will be engaged through a competitive bidding process and must demonstrate compliance with the selection criteria as outlined in this TOR. The CSO may sub-contract minor parts of the work such as graphic design or video production, but the delivery of the program must be undertaken by the CSO. The contract may also be undertaken by a partnership or consortium, provided there is a formal MOU in place documenting governance, roles and responsibilities, and the working arrangements. Oversight will be through a Disaster Risk Specialist within the TIURSP implementation assistance consultants.

78. **EOI Process.** Any registered Community Service Organizations in Tonga may submit an Expression of Interest to the Project Management Unit (PMU). Key selection criteria must be addressed in the application. A Bid Evaluation Committee will be formed to fully assess all EOIs.

79. **PIC Selection Criteria**
Essential Skills

- Capacity to manage and provide oversight to multi-faceted projects
- Adequate human resources to ensure outputs are achieved within designated timeframes
- Sound track record and skills for prudent financial management and reporting
- Strong communication skills and the ability to motivate and engage stakeholders and beneficiaries
- Skills in training, supervision and mentoring
- Skills in designing communication materials, or established relationships with communications experts (e.g. film makers and graphic designers)
- Capacity to provide timely reports and monitor, evaluate and communicate results in progress reports and final lessons learned documents

Desirable Skills

- Experience in the Disaster Risk / Community Vulnerability sector,
- Experience in raising awareness and changing behaviors to improve outcomes
- Linkages or broader networking with similar programs in the Pacific

Key Staff Positions within Project Team

- Project Manager
- Government Liaison Officer
- Training Coordinator
- PIC Representative on CBDRM committee

80. In the EOI, the applicant must name the persons proposed to fill these key positions. CVs to be provided for these proposed staff, highlighting their experience and capacity in this type of role. In addition, the bidding CSO will provide information on any other key resource people proposed.

Outputs and Activities

	Activity	Measurable Outcome
1	Select target community members, government organization representatives. And other representatives that could form a Community Based Disaster Risk Organisation	CBDRM Committees formed
2	Establish Location for administrative headquarters	CBDRM office established
3	Identify suitable Government target personnel for DRM coordination and information sharing	Establish links with NEMO clusters MIA Town officer USP

	Activity	Measurable Outcome
4	Develop Committee Communication Strategy	Strategy developed and adopted
5	Support CBDRM organization to identify training requirements and design and deliver or source training program	CBDRM organization staff trained in in DRM and organizational management
6	Support CBDRM committee to undertake a community workshop to carry out an analysis of community capacities, vulnerabilities and priorities.	Workshop and report identifying vulnerable sections of the community as well as community strengths completed
7	Support CBDRM committee to carrying out or fund and commission a community survey	Survey completed and analyzed
8	Support CBDRM Committees to carry out a community workshop to develop overall objectives and strategies to reduce vulnerability Key M & E indicators will also be identified at the workshop	CBDRM objectives and strategies composed and completed 10 monitoring indicators chosen and plan for capturing data developed
9	Support CBDRM Committees to draft CBDRM plan <ul style="list-style-type: none"> ➤ Translate targets into operational plans and activities ➤ Identify community targets in undertaking preparedness and mitigation measures ➤ Identify the people, timetable, resources within and outside the community needed to turn the intent of the plan into reality ➤ Develop Training Strategies ➤ Identify government structure to delivering program/projects 	Draft CBDRM plan with the following components developed Community targets Proposed infrastructure Proposed Activities Timetable for delivery of activities / training / infrastructure. Required resources (including financial and manpower) Costed training schedule.
10	Disseminate CBDRM plan to community for discussion	Plan disseminated to the community
11	Support CBDRM Committees to develop the implementation plan and to carry out workshops to discuss, prioritize and fine tune plan	1 Workshop for each committee carried out Final CBDRM plan developed
12	Support CBDRM Committees to implement the Plan <ul style="list-style-type: none"> ➤ Identify opportunities and source funding ➤ Co-ordinate with Government Departments 	3 possible sources of funding identified Government departments approached for infrastructure programs

Activity	Measurable Outcome
<ul style="list-style-type: none"> ➤ Develop pre cyclone season preparation campaign ➤ Carry out disaster simulations Liaise with TIURSP ESU Carry out working group meetings	Pre-cyclone preparation campaign completed 1 Disaster simulation carried out Quarterly reports to ESU Monthly working group meetings
13 Support CBDRM Committees to carry out a survey of community to gauge community perception of plan and its effectiveness	Survey carried out and results analyzed and presented at following workshop.
14 Support CBDRM Committees to carry out a community workshop to assess the effectiveness of the CBDRM plan implementation	Workshop complete and CBDRM is reviewed and recommendations for improvement made and carried out
15 Undertake a review of outcomes achieved and document in a Lessons Learned document to be shared with NEMO, MIA and other key stakeholders.	Production of lessons learned report.

Awareness Raising Campaign

Activity	Measurable Outcome
1 Develop an awareness raising strategy for disseminating of information about CBDRM and the committees, outlining the message and media profile.	Strategy outlining key message text and media to be utilized established and budgeted.
2 Assist each CBDRM committee to develop a communication plan, outlining budget, target audiences, key messages and methods for communications.	Communication plans completed for each CBDRM committee, including details and schedules on how they will deliver messages.
3 Develop an online presence for each committee	Facebook page designed and created Twitter account opened
4 Develop a resource kit of materials to be utilized in community-based trainings and to create broader community awareness. This may include short videos, animations, brochures and posters. Messaging to be clear and effective.	Awareness resources to be designed, costed, and produced. Resources to be utilized and distributed at information sessions and to individual households.
5 Provide budget support to CBDRM committees to develop and deliver awareness materials.	PIC to determine the amount and method of payment for awareness program delivery

6	Monitor effectiveness of ARC activities, by surveying community meeting attendees regarding their notice of ARC strategies	Monitoring component in Quarterly reports, and final lessons learned document at the completion of the project support period.
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81. **Monitoring and Evaluation.** The selected CSO will provide quarterly progress reports and submit to the working group as per a format to be provided. The report will detail the activities undertaken, the resources developed and distributed. All consultations, trainings and community awareness activities within the period must be documented as an annex to the report. In addition to a brief description of the activity, the CSO will include gender-disaggregated data on the number of participants and a brief summary of key issues. All reports must be in English language.

82. At the completion of the implementation period, a lessons learned document will be produced to provide a summary of activities. The document will include an analysis of challenges encountered, success stories, and an overview of the impact of the program. It will also contain recommendations for ongoing work in improving outcomes in the DRM sector.

VII. CANDIDATE SUBPROJECTS SELECTION CRITERIA

83. Tonga will ensure that each candidate subproject will have undergone a feasibility study, which will address technical analysis and description, subproject rationale, scope and components, cost estimates and financing plan, implementation arrangements, financial and economic analysis, environment impact assessment, and social and poverty impact assessment. Each feasibility study will be submitted initially for review and approval by ADB. After ADB has endorsed the feasibility study, the PMU will submit the feasibility study to the PSC for final review and approval.

84. Based on the feasibility study conducted, Tonga will only finance candidate subprojects which meet the following criteria:

- (i) The candidate subproject will be identified in the Tonga National Infrastructure Investment Plan Two (NIIP2) or in updated National Priorities of the Government in relation to Urban Sector Development as approved by the Government (i.e. the future urban sector development plan once approved by the government. Priority will be given to subprojects contributing to enhance the climate and disaster resilience of the urban area.
- (ii) The candidate subproject will be considered as a high priority urban development project within the urban or peri-urban area of Nuku'alofa and of high benefit to the people.
- (iii) The candidate subproject will be technically feasible and meets Tonga's technical standards and requirements.
- (iv) The candidate subproject will be justified as the most feasible subproject to achieve the stated objectives and is shown to be designed to minimize costs.
- (v) The candidate subproject's social and poverty impact assessment assesses that the proposed subproject (a) will have a net positive impact on stakeholders' social welfare, (b) will reduce poverty, (c) will promote gender equality and social inclusion, and (d) can have its impacts monitored.
- (vi) The candidate subproject will be designed to minimize social impacts and ensure that (a) people adversely affected by civil works under the subproject are compensated in compliance with the laws of Tonga and ADB involuntary resettlement safeguard policies, (b) due consultation and process is carried out in

line with land acquisition and resettlement plans agreed upon with ADB and disclosed to affected persons, and (c) the EA has submitted written confirmation to ADB that all affected persons of the subproject have consented to the terms and conditions under the land acquisition and resettlement plan. The candidate subprojects will not be selected if there is opposition from affected persons and the community to the candidate subprojects.

- (vii) All candidate subprojects will be subject to a first level of screening in accordance with the environmental laws and policy and are not found to have: (a) significantly impact on ecologically sensitive areas of the Fanga'uta lagoon national marine reserve arising from its design, location, construction or operation; (b) significant impacts on coral reefs and natural vegetation as specified in the schedule of the Environmental Impact Assessment Act, 2003; (c) permanent negative effect on known rare or endangered species; and (d) permanent damage to irreplaceable cultural relics and archaeological sites.
- (viii) The candidate subproject's implementation timeframe will be reasonable, and surveys and design can be prepared, reviewed, and safeguard processes and procedures followed, and implemented within the Project implementation period.
- (ix) Tonga can afford the candidate subproject cost and provides commitment to the investment through provision of budgetary resources to meet counterpart funding requirements for capital expenditures during the construction phase, resettlement costs, environment management costs, and routine operations and maintenance.
- (x) The economic internal rate of return (EIRR) will be 12% or greater in accordance with the ADB Guidelines for Economic Analysis. Subprojects which have an EIRR of less than 12% may only be selected where a strong justification on the basis of social inclusiveness and equity is provided.

VIII. SAFEGUARDS

A. Environment

85. The project is classified environmental category B with an environmental assessment and review framework (EARF) and three initial environment examinations (IEEs) prepared. The EARF will guide environment assessment for candidate subprojects whereas the IEEs have been completed for the three core subprojects. They conclude that no significant negative impacts are to be expected and that the subprojects will yield substantive net environmental benefits for flood management, environmental health and water supply. Any impacts during construction and operation will be avoided or mitigated through measures outlined in the EMP, which will form part of all bidding documents. During implementation, the project implementation assistance consultants will support the MLNR PMU in (i) preparing IEEs for subsequent subprojects, (ii) monitoring of contractor compliance and managing environmental impacts, and (iii) reporting on environmental monitoring. Environmental reporting to ADB will be on a semiannual basis. The government has endorsed the EARF and the three IEEs.

B. Involuntary Resettlement

86. The project is classified category B for involuntary resettlement safeguards with the preparation of a resettlement framework and a draft resettlement plan. The resettlement framework has been prepared to guide any resettlement plans required during implementation for any unanticipated impacts. The resettlement plan is for acquisition of at least 13 land allotments for the flood management subproject. The draft resettlement plan will be updated after detailed engineering design. For the water supply and public health and environmental improvement

subprojects, there will be no need for land acquisition as construction is expected to remain within existing pipes along the road alignment and within existing boundaries of the TWB reservoir and the Tapuhia Waste Management Facility. A due diligence report (DDR) has been prepared to this effect. The project implementation assistance consultants will assist the MLNR PMU with the update, implementation and monitoring of the resettlement plan and for management of any unanticipated impacts. Land acquisition documentation will be done through the Land Compensation Completion Report and through the use of signed offer letters and acknowledgement receipts.

C. Indigenous Peoples

87. The project is classified as category C for indigenous peoples planning with due diligence confirming that no indigenous communities will be impacted by any of the subprojects analyzed. The beneficiaries in the project sites are not discriminated upon due to their language, skin color, or traditional practices. All project outputs will be delivered in a culturally appropriate and participatory manner.

88. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

IX. GENDER AND SOCIAL DIMENSIONS

89. This project is classified as 'Effective Gender Mainstreaming' and a range of measures will be undertaken to ensure proactive gender equality benefits. A Gender Action Plan (GAP) has been developed and will be implemented and led by the PMU which will include an international gender specialist and a gender and safeguards national consultant to support delivery and monitoring of the GAP. The PMU will report the progress of GAP activities in its quarterly progress reports on overall project activities to ADB and the government. Activities, roles, responsibility and resources required are outlined in the GAP below.

Table 20: Gender Action Plan

Outputs	Activities and Performance Targets	Timeframe	Budget	Responsibility
Output 1: Effective risk flood management system implemented (Selected Sites in Nuku'alofa)	All community consultations fed into project design and implementation, at least 50% female participation.	2019-2023	Project	PMU +ESU
	100% of management and staff ¹⁸ and day laborers at Implementing Agency (Land Transport Division of Ministry of Infrastructure, both men and women) in project upgraded flood management infrastructure have completed gender awareness training course including gender equity and sexual harassment. (Baseline = 0)	2019-2023	Project	Social/Gender Specialist at Environment and Social Unit (ESU)
	Contractors submit a policy on sexual harassment that will be complied with and reported on during project implementation and carry out awareness training for 100% of management and project workers on sexual harassment prior to commencement of civil works. (Baseline = no policy)	2019-2023	Contractor	PMU and ESU Contractor – ESU to monitor
	Conduct at least 1 women's focus group meeting each before, during and after project implementation for each of the subproject areas ¹⁹ . Ensure women in impact/ beneficiary areas to be targeted as well as women CSO representatives. (Baseline = 0)	2019-2023	Project (1000 USD)	ESU CSO to carry out awareness program.
	The contractor to employ at least 3 women in flood management infrastructure construction roles. ²⁰ (Baseline = 0)	2019-2023	Contractor	Contractor
Output 2: Water Supply in Nukualofa improved	100% of Tonga Water Board and staff (both men and women ²¹) completed gender awareness training course including gender equity and sexual harassment. (Baseline = No gender training completed for 95% of staff. 5% from NUDSP training attendance)	Q1 – Q4 2020	Project (1000 USD)	Project management unit (PMU), ESU
	Conduct tariff review analyses on gender difference in willingness to pay data, and collect inputs from women and women's groups when developing tariff initiatives such as lifeline tariffs (Baseline: 0)	Q1 2020 – Q4 2023	Project (2000 USD)	Project management unit (PMU), ESU
	Gender-sensitive audio and visual materials developed to raise awareness at the HH level of safe water storage practices and water conservation ²² . (Target: 6,000 households (Census 2016) including all female-headed households.) (Baseline=	Q2 2020 – Q1 2021	Project (1000 USD)	TWB, ESU

¹⁸ Headed by Head of Division; total of 10 staff at Transport Division under the Ministry of Infrastructure. Numbers unknown for day laborers and external contractor maintenance staff – estimate at least 30. Need to work with core staff to establish training plan.

¹⁹ FGDs will cover the gendered impacts of property damage, agricultural livelihoods, access issues and other risks that may result during different phases.

²⁰ Currently there are no women working in plumbing roles in the private sector (discussions with Tonga Skills). The women would be sourced from the Tonga Skills' basic plumbing/on- the job training initiative implemented in 2018. Further support and on the job training will be provided by the Contractor

²¹ TWB Board members include 1 female and 4 males on Utilities Board with 83 staff including 50 in head office at Tongatapu, 10 in E'ua, 14 in Neiafu, and 9 in Ha'afai.

²² Messages will be conveyed as a part of the WASH Awareness Program. TWB will provide input into water messages, and along with ESU will review messages to ensure women and men can identify with the messages. Regular water bills distribution will be used to reinforce the WASH awareness messages.

Outputs	Activities and Performance Targets	Timeframe	Budget	Responsibility
	During NUDSP implementation, no awareness materials specific to water supply were produced)			
	If required, provide training for all customer households on use of the new smart meters to be rolled out by TWB in March 2019, with at least 50% women participation. ²³	2020 –2021	Project	TWB, ESU
	Policy development: Utilities Board to adopt policies and procedures to support women working in utilities (Baseline = 0 gender sensitive policies and procedures)	Q2 – Q3 2019	Project (2000 USD)	Gender specialist working with Board. ESU will have oversight
	Undertake analysis of women in non-traditional roles in TWB (eg meter readers, plumbers) identifying barriers to employing women and develop a strategy to address identified barriers. Analysis and strategy to be disseminated at TWB. (Baseline= 0)	Q2 – Q3 2023	TWB	Gender specialist /ESU working with TWB
	At least 20% of newly hired staff ²⁴ at TWB outside the traditional administrative positions, are female. (Baseline = Currently there are 0 women in engineering, meter reading, plumbing, meter repair services, or water quality testing services)	Q3 2020 - Q3 2023	TWB	TWB
	100% of Utilities Board (both men and women) completed gender awareness training course ²⁵ . Baseline = 1 female and 4 males on Utilities Board. No gender training completed for Board members)	Q1 – Q4 2020	Project (1000 USD)	Project management unit (PMU), ESU
Output 3: Public and Environmental Health Enhanced	Recruitment of at least 3 female waste collection workers (1 driver, 2 runners). Ensure truck they are assigned to has compactor bin lift to assist with safe lifting practice. (Baseline =0 female waste collectors. NB: 15 new jobs in total anticipated)	Q4 2019 – Q4 2021	WAL	WAL (ESU to support)
	Provision of separate female and male toilet facilities at Tapuhia Landfill in order to provide appropriate facilities for women staff. Baseline= 0	Q1 2020 – Q3 2020	Project (5000 USD)	Contractor
	Pilot WASH committees in at least 6 schools ²⁶ with 50% participation of women and girls. WASH committees will include discussion on menstrual hygiene. (Baseline =0)	Q2 2020 – Q4 2023	Project (2000 USD)	Gender and WASH specialists working with schools

²³ Roll out of smart meter infrastructure planned by TWB for 2019. Need to review progress and timeframes at start of project to see if this requirement is still relevant.

²⁴ Estimated 5 new positions and at least one will be a technical position for a woman (e.g. on plumbing, meter repair services, bill distribution or water quality testing services). TWB currently have no female staffing in technical positions.

²⁵ Note: this is the same as first target/activity under Output 2 as it is the same Board

²⁶ The plan is to work with 4 primary schools, 1 high school and 2 pre-schools.

Outputs	Activities and Performance Targets	Timeframe	Budget	Responsibility
	Form community disaster resilience teams in at least 2 towns/villages in the 2 districts of Nuku'alofa, with at least 50% ²⁷ female members in the CBDRM planning/coordination committee.(Baseline = 0)	Q1 2020 – Q4 2021	Project (1000 USD)	Contracted CSO, with oversight from Nuku'alofa WASH and Resilience Working Group
Output 4: Urban resilience strengthened	Gender analysis is included in the development of Climate Resilient Urban Development Strategy and Investment Plan (Baseline =no gender analysis)	Q1 2020 – Q4 2021	Project	PMU and PIAC
	Ministry of Women and women's organizations consulted on the strategy and plan. (Baseline = 0)	Q1 2020 – Q4 2021	Project	PMU and PIAC
	During all community meetings on disaster resilience, at least 50% women as active participants in community meetings and discussions (<i>Baseline= during TRTA, community meetings had total of 91 men, 70 women – 57% men and 43% women</i>)	Q1 2020 – Q4 2021	Project	ESU
	Conduct training of CBDRM facilitators ²⁸ on gender targets and rationale, including how to carry out gender analysis particularly how to identify/document those are most vulnerable in a disaster, including female headed households . Facilitators to be supported to include gender training in the capacity building work they do with CBDRM groups (<i>Baseline = 0</i>)	Q1 2020 – Q4 2021	Project	ESU
	Gender equality and social inclusion are selection criteria for choosing future sub-projects. In feasibility work, it must be demonstrated how the infrastructure or project will make a difference to the lives of women, or how the works will promote better social inclusion and gender equity. (<i>Baseline = 0</i>)	Q3 2021 – Q4 2023	Project	PMU, PSC, ADB
	Conduct female targeted networking events (at least 4) during project implementation. This would target women working in management or non-traditional roles within the government sector. Aim is to build support and collaboration amongst women to further improve design and implementation esp. of urban development projects. (Baseline = 0)	Q2 2020 – Q4 2023	Project (6000 USD)	PMU and ESU
	All report indicators are sex- disaggregated (Baseline = being undertaken under NUSDP) Gender awareness and analysis training for ALL Board Members Management, and Human Resources/Specialists of PMU, EA and IA	Q2 2020 – Q4 2023	Covered by monitoring budget)	PMU and ESU
	Estimated Total Budget		34,000 USD	

²⁷ There are no existing CBDRM committees – the project through a contracted CSO will be setting this up. The target of 50% is achievable if clear from the outset that this is a project requirement. As this will be established by the project, it is an opportunity to instigate a high target, and this is worthwhile to ensure activities are reflective of differing pers

²⁸ CBDRM facilitators are from the contracted CSOs, who will receive this additional project support to ensure they are well aware of requirements.

<p>3. Public and environmental health enhanced</p>	<p>financed from water sales by 2025 (2019 baseline: 95%)</p> <p>2c. Gender-sensitive tariff review conducted by 2025 (2019 baseline: None)</p> <p>3a. Wastewater treatment capacity improved to 20,000 liters per day by 2025 (2019 baseline: 10,000 liters per day) (RFI B)</p> <p>3b. A third cell is commissioned in Tapuhia sanitary landfill by 2025 (2019 baseline: two cells)</p> <p>3c. A water, sanitation, and hygiene and menstrual hygiene awareness program is delivered throughout Nuku'alofa, including at least six schools, three health centers, and major public buildings, with 50% participation of women and girls (2019 baseline: 0).</p>	<p>3a–3c. ADB mission reports, quarterly project progress reports, and project completion report</p> <p>WAL annual report</p>	<p>Poor quality maintenance and repairs to specialized plant and equipment caused by limited capacity of local staff and contractors</p> <p>Implementation delays and cost overruns occur because of limited capacity of local contractors</p> <p>Poor quality maintenance and repairs to specialized plant and equipment caused by limited capacity of local staff and contractors</p>
<p>4. Urban resilience strengthened</p>	<p>4a. A gender-sensitive climate- and disaster-resilient urban development strategy and investment plan prepared by 2023 (2019 baseline: 0)</p> <p>4b. A gender-sensitive, community-based disaster risk management program rolled out in two pilot communities in Nuku'alofa by 2025 (2019 baseline: 0)</p> <p>4c. 10-year asset management plans prepared for the Land Transport Division of MOI, TWB, and WAL by 2025 (2019 baseline: 0)</p>	<p>4a.–4c. ADB mission reports, quarterly project progress reports, and project completion report</p>	<p>Lack of community interest to participate</p>

<p>Key Activities with Milestones</p> <p>1. Effective flood risk management infrastructure implemented</p> <p>1.1 Complete Nuku'alofa flood management and drainage infrastructure detailed design by Q4 2020.</p> <p>1.2 Complete land acquisition for the drainage and flood management works by Q1 2021.</p> <p>1.3 Put in place road drainage asset management framework planning to reduce annual maintenance programs by Q2 2022.</p> <p>1.4 Strengthen MOI/Land Transport Division revenue collection through improved financial management and the approval of new levies, fees, and charges by Q2 2024.</p> <p>1.5 Complete Nuku'alofa new drainage/flood management infrastructure by Q4 2024.</p> <p>2. Water supply service in Nuku'alofa improved</p> <p>2.1 Put in place nonrevenue water program to test, monitor, repair and maintain Nuku'alofa water network by Q4 2020.</p> <p>2.2 Put in place water supply 10-year asset management framework and annual maintenance program by Q2 2021.</p> <p>2.3 Complete and adopt water tariff review by Q2 2022.</p> <p>2.4 Complete repair, rehabilitation, and upgrade of undersized pipes in all problem zones in Nuku'alofa by Q4 2024.</p> <p>3. Public and environmental health enhanced</p> <p>3.1 Procure new solid-waste management equipment by Q4 2020.</p> <p>3.2 Upgrade leachate/septage wastewater treatment plant capacity by Q3 2021.</p> <p>3.3 Put in place 10-year asset management framework and annual maintenance program by Q1 2022.</p> <p>3.4 Put in place water, sanitation, and hygiene awareness raising campaign by Q2 2022.</p> <p>3.5 Commission third cell in Tapuhia landfill by Q1 2023.</p> <p>3.6 Improve revenue collection, financial management, and tariff setting by Q4 2024.</p> <p>4. Urban resilience strengthened</p> <p>4.1 Recruit consulting firm for the preparation of the climate- and disaster-resilient urban development strategy and investment plan by Q2 2020.</p> <p>4.2 Prepare climate- and disaster-resilient urban development strategy and investment plan by Q2 2022.</p> <p>4.3 Recruit civil society organization for delivery of community-based disaster risk management program by Q4 2020.</p> <p>4.4 Deliver community-based disaster risk management program by Q4 2024.</p> <p>Inputs</p> <p>ADB: \$18.28 million (grant)</p> <p>Government of Tonga: \$3.04 million</p>

ADB = Asian Development Bank, km = kilometer, MOI = Ministry of Infrastructure, Q = quarter, RFI = results framework indicator, TWB = Tonga Water Board, WAL = Waste Authority Limited.

Notes: Contribution to the ADB Results Framework:

RFI A: Land improved through irrigation, drainage, and/or flood management (hectares). Target: 400 hectares.

RFI B: Wastewater treatment capacity added or improved (liters per day). Target: 20,000 liters per day.

^a Government of Tonga. 2015. *Tonga Strategic Development Framework 2015–2025*. Nuku'alofa.

^b Government of Tonga. 2016. *Tonga Climate Change Policy: A Resilient Tonga by 2035*. Nuku'alofa.

Source: Asian Development Bank.

B. Monitoring

90. **Project performance monitoring.** Within 3 months of the grant effectiveness, the MLNR, though the PMU assisted by the PIAC, will establish and agree with ADB a project performance and monitoring system. The PMU will prepare quarterly monitoring reports, including (i) sex disaggregated baseline data for output and outcome indicators, (ii) implementation status:

'Projection vs. Actual' (e.g., implementation schedule, costs, outputs etc.), (iii) implementation status of procurement plans, (iv) economic indicators, and (v) additional data for monitoring economic development, socioeconomic development, environmental impact, and institutional development etc. as required. Monitoring and evaluation will be based on gender-disaggregated data for social and poverty impact indicators. The quarterly reports will provide information necessary to update ADB's project performance reporting system. The two annual grant reviews and the quarterly monitoring reports will include environmental and social safeguard monitoring reports. The PIAC will provide hands-on training to the PMU/MLNR staff and national consultants in data collection, monitoring, and evaluation. The PMU shall monitor and evaluate the indicators according to the framework agreed with ADB on a quarterly basis to determine the efficiency and effectiveness of the project. The monitoring reports will be updated and reported quarterly through the MFNP quarterly progress reports and after each ADB review mission. Beneficiaries will be involved in project monitoring and evaluation. In addition, the project steering committee will oversee and monitor the overall implementation of the project.

91. **Compliance monitoring.** In addition to the standard assurances, compliance with the specific assurances and conditions will be monitored. Implementation of covenants will be (i) summarized in the quarterly progress reports, (ii) discussed during PMU meetings, and (iii) reviewed during biannual grant review missions. The executing and implementing agencies will cause the detailed consolidated project accounts to be audited in accordance with International Standards on Auditing by an auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency. The government has been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

92. **Safeguards monitoring.** The PMU, with assistance from the PIAC, will be responsible for monitoring safeguard activities through the project implementation assistance consultants. The MOF will submit semi-annual safeguard monitoring reports to ADB, and the findings will be incorporated into the progress reporting of the PMU. Safeguard monitoring is included as a requirement of the EARF. Before commencing work, the contractor will prepare a contractor's EMP which will establish how the contractor will comply with the EMP safeguard requirements. Monitoring of the contractor's work will be undertaken by the resident engineer with assistance of the safeguards officer. Monitoring will also be carried out independently by the Ministry of Environment and Climate Change. The PMU through the MOF will submit a subproject land acquisition completion report to ADB before award of civil works contracts for subprojects involving land acquisition and resettlement. ADB review missions will also check the progress on implementation of safeguard requirements. If any subproject involved significant safeguard issues.

93. **Gender and social dimensions monitoring.** The project's GAP will be implemented by the PMU which will include an international gender specialist and a national gender and safeguards consultant. The specialist and national gender consultant will be responsible for delivery of the GAP and gender design features in the DMF. This includes project planning and implementation and developing and establishing effective ongoing sex disaggregated monitoring and reporting systems and processes. The PMU assisted by the consultants will report on the progress of GAP activities in its quarterly progress reports. A mid-term review will be carried out and project completion report will be undertaken at project end.

C. Evaluation

94. Soon after the PMU and PIAC are mobilized, ADB will field an inception mission to agree with the MOF on implementation requirements of the project as well discuss in detail on the procedures relating to procurement of works and goods, recruitment of consultants and disbursements. ADB and the government will undertake semiannual reviews of the project to consider the (i) scope of the project, (ii) implementation arrangements, (iii) compliance with grant covenants, (iv) physical achievements against targets and milestones, and (v) project implementation issues requiring resolution or action. The midterm review will be made after 3 years of the grant effectiveness date. Prior to the midterm review, MOF with the assistance of PMU will prepare a position paper outlining any proposals for any changes required under the project which will not adversely affect the project's outcomes. The midterm review will examine in detail the implementation progress and project design (institutional, administrative, organizational, technical, environmental, social, poverty reduction, resettlement, economic, and financial aspects), and identify courses of action that would improve project performance, viability, and the achievement of targets and project objectives. All the assumptions and risks noted in the design and monitoring framework will be reviewed. Within 6 months of physical completion of the project, the MOF will submit a project completion report to ADB.²⁹

95. ADB will undertake a project completion review (PCR) of the project after 12 and 24 months from physical completion date. The PCR will evaluate the processing and design of a project, both by ADB and the borrower among others assess and evaluated (i) performance of the borrower, EA and IA in managing and implementing the project, and in complying with ADB's guidelines, policies, practices, procedures, and grant covenants, and evaluate project costs, disbursements, and institutional improvements; (ii) assess the performance of consultants; (iii) review problems encountered during implementation and the effectiveness of measures to resolve them, by the borrower, EA, IA, and ADB; (iv) assess whether the borrower, EA, IA, and ADB monitored progress effectively in comparison with quantifiable and monitoring targets; (v) reevaluate the financial and economic performance of the project at its initial stage of operation and compare with the qualified indicators in the design and monitoring framework and project performance report; (vi) assess the project's transition to operations, and identify any remedial measures needed; (vii) assess future operation and maintenance schedules to ensure sustainability of the project; (viii) recommend any other steps that the borrower and EA need to take to ensure the project's sustainable operation; (ix) assess the performance of the monitoring and evaluation system established for the project and reexamine the indicators selected for monitoring operations and assessing development impact; (x) assess significant environmental and poverty reduction impacts (include sociocultural impacts when applicable) of the project, and evaluate the implementation and effectiveness of any environmental control measures, resettlement plans, and poverty reduction measures; and (xi) assess whether the immediate development objective has been met and the likelihood of attaining long-term development goal.

D. Reporting

96. The MOF will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months

²⁹ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

97. During the early implementation phase of the project, the communication strategy and communication plan prepared through the transaction technical assistance and attached to the report and recommendation to the President (RRP) will be reviewed and updated by PMU. The communication strategy and communication plan will indicate the types of information, means of communication, who will provide and to whom including at what intervals to the stakeholders about the project as well as its implementation.

XI. ANTICORRUPTION POLICY

98. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.³⁰ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption sanctions list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.³¹

99. To support these efforts, relevant provisions are included in the grant agreement and the bidding documents for the project.

100. The government, EA, IA shall (i) ensure that the project is carried out in compliance with all applicable anticorruption regulations of the government and ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the project; (ii) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation; and (iii) ensure that all relevant staff actively participate in the training in government's anticorruption regulations and ADB's Anticorruption Policy.

101. The EA and IA shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the EA and IA and all contractors, suppliers, consultants, and other service providers as they relate to the project. The government shall make public information about selection of consultants and award of goods, works, and related services in line with requirements to this effect described in ADB's Guidelines on the Use of Consultants and Procurement Guidelines.

XII. ACCOUNTABILITY MECHANISM

102. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's

³⁰ Anticorruption Policy: <https://www.adb.org/documents/anticorruption-and-integrity-policies-and-strategies>

³¹ ADB's Integrity Office web site: <https://www.adb.org/site/integrity/main>

operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.³²

XIII. **RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

103. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

Date Changed	Section Changed	Changes Made
1. July 2019	Draft PAM completed	

³² Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.