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Report No: PAD1463

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF SDR 1.50 MILLION (US\$2.00 MILLION EQUIVALENT) AND A

PROPOSED ADDITIONAL GRANT

IN THE AMOUNT OF SDR 1.50 MILLION (US\$2.00 MILLION EQUIVALENT)

TO THE

KINGDOM OF TONGA

FOR A

TRANSPORT SECTOR CONSOLIDATION PROJECT

September 8, 2015

Transport & ICT Global Practice East Asia and Pacific Region

This document is being made publicly available prior to Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank's policy on Access to Information.

CURRENCY EQUIVALENTS

(Exchange Rate Effective August 14, 2015)

Currency Unit = Tongan Pa'anga (TOP) TOP 2.1226 = USD1.00 USD1.00 = SDR 0.7170

FISCAL YEAR

July 1 - June 30

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
CAS	Country Assistance Strategy
CEMP	Contractor's Environmental Management Plan
EIRR	Economic Internal Rate of Return
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
GoT	Government of Tonga
IBRD	International Bank of Reconstruction and Development
ICAO	International Civil Aviation Organization
ICT	Information and Communications Technology
IDA	International Development Association
ISR	Implementation Status and Results Report
LTD	Land Transport Division
MoI	Ministry of Infrastructure
MoIT	Ministry of Infrastructure and Tourism
MoT	Ministry of Transport
MPD	Marine and Ports Division
NGO	Non-Governmental Organization
NPV	Net Present Value
PAD	Project Appraisal Document
PDO	Project Development Objective
PMU	Project Management Unit
PPD	Policy and Planning Division
PRIF	Pacific Regional Infrastructure Facility
PSC	Project Steering Committee
SDR	Special Drawing Rights
TAIP	Tonga Aviation Investment Project
TAL	Tonga Airports Limited
TCIRCRP	Tonga Cyclone Ian Reconstruction and Climate Resilience Project
TSCP	Transport Sector Consolidation Project
US\$	United States Dollars
WB	World Bank

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TONGA

TRANSPORT SECTOR CONSOLIDATION PROJECT

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ADDITIONAL FINANCING DATA SHEET

Tonga

Tonga Transport Sector Consolidation Project - Additional Financing (P151806) EAST ASIA AND PACIFIC REGION

GTI02

Basic Information – Parent												
Parent Pro	ject ID:		P096931		Original EA Category:				B - Partial Assessment			
Current Cl	losing Dat	e:	31-Dec-20	15								
	Basic Information – Additional Financing (AF)											
Project ID	:		P151806			Addition AUS):	nal Financir	ng Type	e (from	Scale	e-Up	
Regional	Vice Presid	dent	Axel van Trotsenbur	g		Propose	d EA Categ	ory:			artial essment	
Country D	Director:		Franz R. D Gross	rees	-	Expecte	d Effective	ness Da	ate:	31-D	Dec-2015	
Senior Glo Director:	obal Practi	ce	Pierre Guis	slain		Expecte	d Closing E	Date:		30-Jı	un-2018	
Practice M	lanager:		Michel Ke	rf		Report 1	No:			PAD1463		
Team Lea	der(s):		Julie Babir	nard								
					B	orrower	•					
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Minis	stry of Fina	ance	Tatafu I	Moea	ıki	CEO	(676) 27-579			secretary@finance gov.to		
Project]	Financin	g Data - 🤇	Parent (1			ansport SD milli		onsoli	dation Pı	rojec	t - P096931)	
Key Dates	5											
Project	Ln/Cr/TF	Status	Approval l	Date	Sig	ning Date	Effective Date		Origina Closing I		Revised Closing Date	
	IDA- H4160	Effective	08-Jul-200	8	17-Jı	ıl-2008	12-Dec-20	008	31-Dec-20)11	31-Dec-2015	
P096931	ГF-99585	Effective	29-Jul-201	1	23-A	ug-2011	06-Oct-20	11	31-Dec-20)13	31-Dec-2015	
Disburseme	ents	I								1		
Project	Ln/Cr/TF	Status	Currency	Orig	ginal	Revised	Cancelled	Dis	bursed	Undi urse		
	DA-H4160	Effective	USD		5.44	5.44	0.00		4.87	0.39	9 92.59	
P096931	ГF-99585	Effective	USD	1	10.30	10.30	0.00		10.30	0.00) 100.00	
Proje	Project Financing Data - Additional Financing Tonga Transport Sector Consolidation Project - Additional Financing (P151806) (in USD million)										solidation	

[] Loar	n [] Gra	nt	[X] IDA C	Frant					
		arantee	[] Other						
Total Project Cost:6.00Total Bank Financing:4.00									
Financing G	-	0.00							
	Financing Source – Additional Financing (AF) Amount								
BORROWE	R/RECIPIENT						2.00		
International	Development A	ssociation	(IDA) Credi	it			2.00		
IDA Grant							2.00		
Policy Waiv	rers					Total:	6.00		
Does the pro	ject depart from	the CAS is	n content or	in other	significant	respects?	No		
Does the pro	ject require any	policy wai	ver(s)?			-	No		
		-	Team C	ompos	sition				
Bank Staff									
Ν	lame	F	Role		Title	Specialization	Unit		
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Kanya Hilar	y Baratha Raj	Team Me	ember	Tempo	orary		EACNF		
Locations				,					
Country	First Admini Divisio		Locati	on	Planned	Actual	Comments		
Tonga	Tongatapu		Tongatapu	l	Х				
Tonga	Tongatapu		Nuku`alof	a	X				
Tonga	Ha`apai		Ha`apai		X				
Tonga	Vava'u		Lupepau'u		X		<u></u>		

Tonga	Eua	E	ua	Х		
Tonga	Niuas	N	liuatoputapu	Х		
Tonga	Niuas	N	iuafo'ou	Х		
			Institutional l	Data		
Parent (T	onga Transport Secto	or Conso	lidation Project	•P096931)		
Practice A	rea (Lead)					
Transport &	& ICT					
Contributi	ing Practice Areas					
Cross Cutt	ting Topics					
[] Climat	te Change					
[] Fragile	e, Conflict & Violence	•				
[] Gende	er					
[X] Jobs						
[] Public	Private Partnership					
Sectors / C	Climate Change					
Sector (Ma	ximum 5 and total % r	must equ	al 100)			
Ν	Aajor Sector		Sector	%	Adaptation Co-benefits %	Mitigation Co- benefits %
Transportat	tion	Aviation	n	45		
Public Adn Justice	ninistration, Law, and	Public a Transpo	dministration,	43		
Transportat	tion	Ports, w shipping	vaterways and	12		
			Total:	100		
Themes						
Theme (Ma	aximum 5 and total %	must equ	ual 100)			
	Major theme			Theme		%
Public sect	or governance	(Other public sector	or governand	ce	40
Trade and i	integration]	Frade facilitation	and market	access	17
Urban development			City-wide Infrastr Delivery	Service	17	
Financial a development	nd private sector nt		nfrastructure serv levelopment	vate sector	13	
Rural devel	13					
					Total:	100
Additional (P151806	l Financing Tonga Tr)	ansport	Sector Consolid	ation Proje	ct - Additional F	inancing

Practice Area (Lead)

Transport & ICT

Contributing Practice Areas

n.a.

Cross Cutting Topics

[] Climate Change

[] Fragile, Conflict & Violence

- [X] Gender
- [] Jobs
- [] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Sector (Maximum 5 and total // mast equal 100)								
Major Sector		Sector	%	Adaptation Co-benefits %	Mitigation Co- benefits %			
Transportation	Ports, shippi	waterways and ng	49					
Public Administration, Law, and Justice		administration,	24					
Transportation		and Inter-Urban and Highways	27					
Themes	-		-					
Theme (Maximum 5 and total %	must ec	jual 100)						
Public sector governance		Other public sector governance			40			
Rural development	Rural services an	30						
Trade and integration		Trade facilitation and market access			30			
		·		Total:	100			

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide Additional Financing (AF) in an amount of SDR 3.0 million (US\$4.0 million equivalent) to the Kingdom of Tonga for the Transport Sector Consolidation Project (TSCP) (P096931; IDA Grant No. IDA-H4160 and PRIF TF-99585). The proposed AF will be through an IDA credit in an amount of SDR 1.5 million (US\$2.0 million equivalent) and an IDA grant in an amount of SDR 1.5 million (US\$2.0 million equivalent). The project will leverage US\$2.0 million (equivalent) of counterpart financing.¹ The AF includes a Level 2 restructuring of TSCP involving: (i) changes to the project components; (ii) revisions to the Results Framework; and (iii) application of the most recent procurement guidelines.

2. With the support of TSCP, the Government of Tonga (GoT) has successfully created a domestic road maintenance industry, improved maritime and aviation safety, promoted private sector development, and supported the Ministry of Infrastructure and Tourism (MoIT)² through a change management process which is setting an example for other ministries on how to proceed with organizational reform.

3. The proposed AF requested by GoT would help finance: (i) priority maritime investments in infrastructure and maritime safety, which were not completed under the original project because the funding available was not sufficient to cover all activities recommended in the June 2011 maritime needs assessment; (ii) land transport investments that focus on improving road safety; and (iii) technical advisory services, training and support to continue the project's change management process to assist MoIT in its divestment program to create more efficient and effective operations, and to carry out limited road maintenance activities.

II. Background and Rationale for Additional Financing

4. <u>Project Background</u>. TSCP was first approved in 2008 and became effective on December 12, 2008 with a grant (IDA-H4160) of SDR 3.4 million (US\$5.44 million equivalent), implemented by the then Ministry of Transport (MoT). Originally conceived as a sector reform project, TSCP was scaled-up in November 2010 with support from the Government of Australia to finance: (i) priority maritime investments, following the tragic sinking of the Princess Ashika, a passenger ferry; and (ii) introduce the 'Sustainable Road Maintenance Program,' which promoted local contractors to undertake road maintenance activities. At the time, the Project Development Objective (PDO) was amended to reflect this substantial scale-up and new activities under the project. All activities financed by the Pacific Regional Infrastructure Facility (PRIF) TF-99585 have been completed and therefore the closing date of December 31, 2015 of the IDA and PRIF grants will not be extended under the proposed AF.

5. TSCP has the following four main components, :

¹ US\$1 million equivalent will be deposited to the Road Maintenance Fund for road maintenance activities and a further US\$1 million equivalent will be contributed in the form of foregone taxes and duties.

² The Ministry of Infrastructure (MoI) and the Ministry of Tourism were merged in June 2015 to create the MoIT.

- Component A: Establishment of a sustainable transport sector policy, and institutional and operational framework. Activities to enable the creation of a sustainable transport sector.
- **Component B: Compliance with Mandatory Safety and Security Standards.** Provision of high priority strategic investments required to meet mandatory safety and security standards required under international agreements, treaties and obligations;
- Component C: Supporting the Transition towards Sustainability in the Transport Sector. Further investments consistent with the policy/planning frameworks and investment plans developed in Component A for a more sustainable transport sector; and
- Component D: Project Implementation Support.

6. The project is consistent with the Country Assistance Strategy (CAS) FY2011-2014 (Report 56630-TO), particularly the second of the three themes, namely generating opportunities through greater global and regional integration. Themes include reducing the constraints of economic geography and helping the citizens of Tonga to make the most of opportunities. TSCP is mentioned in the CAS particularly with respect to strengthening the management of infrastructure assets and improvements in civil aviation and maritime safety, and provision of counter-cyclical employment. The AF will continue to build on maritime safety in Tonga, and is consistent with the CAS. In addition, the proposed project is aligned with the WBG's strategic goals of ending extreme poverty and boosting shared prosperity to the extent that providing safe, reliable and affordable transport will help link communities to markets and improve livelihoods.

- 7. Since 2010, TSCP has undergone four restructurings:
 - November 2010: The Project underwent a level one restructuring as the project was significantly scaled up through the provision of an additional US\$ 10.3 million in grant financing from the Government of Australia, through the Pacific Region Infrastructure Facility (PRIF), with a focus on road maintenance activities as well as priority maritime investments. The PDO of the Project was also revised to capture the scaled-up activities. The closing date of the project was extended from December 31, 2011 until December 31, 2013, to allow sufficient time for the completion of the additional activities added to the project.
 - July 2012: Changes were made to the legal agreements to reflect the merger of MoT with the Ministry of Works to form the Ministry of Infrastructure (MoI), which was part of GoT's program to consolidate ministries. Changes were made to the administrative agreements relating to the agreements between the donors and the project entity.
 - August 2013: The project's closing date was extended to December 31, 2015 to permit the completion of road maintenance activities and to allow time for the Government to implement a large number of policy recommendations prepared through the project, in particular related to the restructuring of MoI.

• February 2014: The project's legal agreements were amended through a Level 2 restructuring to broaden the geographical scope of the aviation investments in response to Tropical Cyclone Ian, which struck the island group of Ha'apai on January 11, 2014.

8. Concurrently to TSCP, GoT is implementing the Tonga Aviation Investment Project (TAIP) (P128939). Many of the aviation investments identified by the transport sector reform study, undertaken by TSCP, were financed under TAIP with the exception of two civil works contracts involving a new fire station and an expansion to the existing terminal building at Fua'amotu International Airport, both of which were underway before TAIP was approved and will be completed under the original TSCP grant. The TSCP AF will not support any further or new aviation investments.

9. <u>Implementation Progress</u>. To date, the Project has disbursed US\$4.87 million (93 percent) of the original IDA grant and US\$10.30 million (100 percent) of the PRIF grant. The remaining funds for the IDA grant are almost all committed. All funds will be used by the current closing date. The project is on track to meet the PDO and complete the remaining existing activities by the current closing date.

- 10. TSCP has been successful on many fronts, including contributing to the following:
 - a. MoIT was transformed through its TSCP-supported restructuring, devolving several non-key business areas to focus on its role of policy and planning. Divestment activities so far have been broad, ranging from hiring out of road construction equipment to contractors, concessioning quarry operations, to seeking the contracting out of vehicle inspection processes, and implementing an IT strategy, including an accounting system. This led to an award from the Institute of Asset Management (UK) in 2014;
 - b. A domestic road maintenance industry was created, and regular road maintenance under the oversight of MoIT is now being carried out, with future activities to be funded from the road maintenance fund established through TSCP;
 - c. A road safety audit of Tonga, including outer islands, was completed in August 2011 and a number of key road safety improvement works were completed; and,
 - d. The installation of aids to navigation, and institutional strengthening activities at MoIT's Marine and Ports Division, have contributed to improving maritime safety.

11. <u>Performance Indicators</u>. The project has been progressing well. Progress towards achieving the PDO and Overall Implementation Progress (IP) have been rated *Moderately Satisfactory* or *Satisfactory* since December 2012. There are no fiduciary, environmental, social or safeguard issues, the proposed works and activities will be completed within the proposed project closing date, and the Borrower has sufficient capacity for implementation.

Table 1: ISR performance ratings

	Jan '12	Jun '12	Dec '12	Jun '13	Dec '13	May '14	Nov '14	Jun'15
Progress towards achievement of PDO	MU	MU	MS	S	S	S	S	S
Overall implementation Progress	MU	MS	MS	MS	S	S	S	S

Note: S = Satisfactory; MS = Moderately Satisfactory; MU = Moderately Unsatisfactory

12. There has been compliance with all legal covenants except one. GoT is taking steps to recruit a permanent Director of Land Transport, subject to the competency of the applications received. The legal covenant requiring the appointment of a Director of Land Transport within MoIT will be maintained as a dated covenant in the Financing Agreement to be fulfilled by January 31, 2016.

13. <u>Financial Management Arrangements</u>. A Financial Management supervision mission in May 2015 rated the project's financial management performance as Moderately Satisfactory. Presently, the project accountant for the Tonga Cyclone Ian Reconstruction and Climate Resilience Project (TCIRCRP) provides financial management and procurement support to TSCP PMU and maintains TSCP's accounts. The rating is based in part on a recent GoT Audit Office review of TCIRCRP that uncovered non-adherence to agreed practices for approving payments. To remediate this issue, stronger financial management oversight is being instituted through the appointment of: (i) a Senior Advisor by the Ministry of Finance to oversee all transactions and clear payments of MoIT for both TCRICRP and TSCP; and (ii) a Project Accountant to manage TSCP's transactions, whose appointment will be an effectiveness condition for the AF. The rating of Moderately Satisfactory will be re-assessed during future Bank missions.

14. There will be no changes to the existing financial management processes, and the reporting requirements for Interim Financial Reports and audits of Financial Statements will not change. There are no overdue audits.

15. <u>Rationale for Additional Financing</u>. Most of the activities proposed to be funded through the AF are a continuation of the existing project activities with scaling-up of the maritime and land transport safety aspects, and will serve to increase the effectiveness and extent of the project's impact. With the ongoing reforms of MoIT only partially completed, the GoT is seeking the Bank's continued support with this critical institutional reform. This will help to further entrench the road fund and ongoing sustainable road maintenance, both of which commenced through the efforts of TSCP.

III. Proposed Changes

Summary of Proposed Changes

The proposed AF requested by GoT would help finance: (i) priority maritime investments in infrastructure and maritime safety, which were not completed under the original project because the funding available was not sufficient to cover all activities recommended in the June 2011 maritime needs assessment; (ii) land transport investments that focus on improving road safety;

effective operations.	Program to creme more criterin and
Change in Implementing Agency	Yes [] No [X]
Change in Project's Development Objectives	Yes [] No [X]
Change in Results Framework	Yes [X] No []
Change in Safeguard Policies Triggered	Yes [] No [X]
Change of EA category	Yes [] No [X]
Other Changes to Safeguards	Yes [] No [X]
Change in Legal Covenants	Yes [X] No []
Change in Loan Closing Date(s)	Yes [] No [X]
Cancellations Proposed	Yes [] No [X]
Change in Disbursement Arrangements	Yes [] No [X]
Reallocation between Disbursement Categories	Yes [] No [X]
Change in Disbursement Estimates	Yes [] No [X]
Change to Components and Cost	Yes [X] No []
Change in Institutional Arrangements	Yes [] No [X]
Change in Financial Management	Yes [] No [X]
Change in Procurement	Yes [X] No []
Change in Implementation Schedule	Yes [] No [X]
Other Change(s)	Yes [X] No []

and (iii) technical advisory services, training and support to continue the project's change management process to assist MoIT in its divestment program to create more efficient and effective operations.

Development Objective/Results

Project's Development Objectives

Original PDO

To establish and consolidate the operations of the newly-created Ministry of Transport as a unified transport sector-policy, planning and regulatory ministry and to improve the level of compliance of the civil aviation and maritime subsector entities with international safety and security standards.

Current PDO

(The current PDO was amended as part of the November 2010 restructuring). The PDO is to assist the Recipient to develop its transport sector to have: (i) stronger policy, planning and regulatory institutions and framework; (ii) improved safety and security facilities and compliance with international safety and security standards; and (iii) greater domestic capacity for road rehabilitation and maintenance.

Change in Results Framework

Explanation:

Annex 1 contains the proposed project monitoring indicators. The PDO indicators have been revised to reflect the current environment and scale-up of the project's activities.

		Complia	nce			
	Additional Finan Financing - P1518	cing (Tonga Transp)6)	ort Sec	ctor Cor	nsolidation Proje	ect -
Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recur rent	Frequency	Action
IDA	Schedule 2, Section V.1	Appointment of Director of Land Transport within MoIT.	Janu ary 31, 2016		One-time	
IDA Schedule 2, Section V.2		US\$1 million equivalent in counterpart funds deposited in Road Maintenance Fund.	Janu ary 31, 2016		One-time	
Conditions						
		N T				
Source Of	Fund	Name	• ,		ype	
IDA Appointment of Project Condition of Effectiveness Accountant to PMU						
Description	n of Condition					
		appointed to the PMU acceptable to the Ass			IT with terms of	reference,

Risk							
Risk Category	Rating (H, S, M, L)						
1. Political and Governance	High						
2. Macroeconomic	Moderate						
3. Sector Strategies and Policies	Substantial						
4. Technical Design of Project or Program	Low						
5. Institutional Capacity for Implementation and Sustainability	High						
6. Fiduciary	Substantial						
7. Environment and Social	Low						

8. Stakehol	lders				Low
9. Other					
				Overall:	Substantial
				nance	
	0	Additional Finar Project - Additi	0.0	-	
Source of	Funds			Proposed Add Closing Date	litional Financing Loan
Internation	al Developr	nent Association	(IDA)	30-Jun-2018	
	0	- Parent (Tong t - P096931)	a Transport S	Sector	
Explanatio	n:				
Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)
IDA- H4160	Effective	31-Dec-2011	31-Dec- 2015	31-Dec-2015	31-Dec-2013
TF-99585	Effective	31-Dec-2013	31-Dec- 2015	31-Dec-2015	31-Dec-2013
		nal Financing (7 t - Additional Fi			
Source of Funds	Currency	Catego	•	Allocation	Disbursement % (Type Total)
Funds	-	Expend	nure	Proposed	Proposed
IDA Grant	USD	Goods, works, c services, Operati Training and Wo the Project	ing Costs,	2,000,000.00	100.00
			Total:	2,000,000.00	
IDA Credit	USD	Goods, works, c services, Operati Training and Wo the Project	ing Costs,	2,000,000.00	100.00
			Total:	2,000,000.00	
			Components		
Change to	Componer	nts and			

Cost

Explanation:

Under the proposed AF, the project's four components would remain:

- **Component A:** Establishment of a Sustainable Transport Sector Policy, and Institutional and Operational Framework;
- **Component B:** Compliance with Mandatory Safety and Security Standards;
- **Component C:** Supporting the Transition towards Sustainability in the Transport Sector; and,
- **Component D:** Project Implementation Support.

Activities under Component A have been completed and no further funding will be allocated to this component. Changes will be made to: (i) Component B to accommodate the proposed maritime investments; (ii) Component C to provide further support to the change management process and the transport sectors, to implement road safety initiatives, and carry out limited road maintenance; and (iii) Component D to provide sufficient project management support during implementation.

Project Activities: The scope of AF activities will include:

• Component B (Additional Finance USD 1.67 million including contingencies/excluding taxes): Provision of high priority strategic investments required to meet with mandatory safety and security standards required under international agreements, treaties and obligations.

Under this component physical investments in maritime infrastructure will be made including: (i) study to examine the impacts of maritime improvements; (ii) additional aids to navigation for Eua, Ha'apai, Vava'u and the Niuas; (iii) marine safety, maintenance and environmental protection equipment; (iv) improvements to wharves, and passenger and cargo facilities; and (v) services for design and supervision.

These maritime investments will build upon the TSCP improvements undertaken in 2012 and 2013. A GoT priority is to rehabilitate outer islands ports as part of more comprehensive inter-island shipping exchanges that includes the introduction of a new ferry and development of improved terminals and harvest facilities at ports.

Improvements will take place at identified ferry terminals in Ha'apai, 'Eua and other islands, as necessary, and depending on location and requirements, will involve small extensions to existing wharves, re-grading of existing ramps, cargo and dangerous goods isolation areas, improvements to passenger security and facilitation areas, and installation of navigational lights.

The specific maritime works for improving passenger and cargo facilities will be confirmed after

scoping studies to be completed during the first year of implementation. If the proposed activities are not covered by the existing EMP, it will be updated to reflect the necessary changes and disclosed again. Should any changes have the potential for more substantial impacts, a limited Environmental and Social Impact Assessment (ESIA) will be prepared.

- Component C (Additional Finance USD 2.89 million including contingencies/excluding taxes): Further investments consistent with the policy/planning frameworks and investment plans developed in Component A for a more sustainable transport sector:
 - (i) Transport Safety (USD 0.48 million): Investments to improve transport safety including: (i) minor road improvement works to address safety issues; (ii) investments to improve maritime safety; (iii) road safety awareness and education campaigns executed through various media channels, which will be implemented through one or more specialized NGOs; (iv) advisory services for evaluating options and making recommendations for a road safety program involving the use and/or rental of child car seats and safety restraints; and (v) advisory services and support for updating existing safety legislation in the transport sector.
 - (ii) Capacity Building (USD 1.34 million): Technical advisory services and training to strengthen MoIT's capacity, including: (i) advisors for asset management, maritime, roads, and traffic safety; (ii) support for scaling-up change management; (iii) training and capacity building; and (iv) information and communications technology (ICT) systems, including an asset management system.
 - (iii)Transport Sector Reforms (USD 0.07 million): An assessment of the impacts of the ongoing consolidation and change management process in the transport sector, including: (i) comparison of expected and actual outcomes; (ii) impact of outsourced works and services, especially on spending, productivity and job creation; (iii) how to ensure reforms are sustainable; (iv) circumstances under which force account for works would be viable; and (v) lessons learned and recommendations going forward.
 - (iv) Road Maintenance (USD 1.00 million): GoT will contribute US\$1 million in counterpart funding to the Road Maintenance Fund, which primarily finances routine and periodic maintenance of roads under MoIT's jurisdiction. This funding will be used to outsource road maintenance activities in support of the local contracting industry. Specific maintenance activities to be financed will be based on MoIT's Annual Tonga National Roads Improvement Plan, which identifies and provides the rationale for proposed investments.
- Component D: Project Implementation Support. (US\$0.44 million including contingencies/excluding taxes): Funding for the PMU for MoIT for 2.5 years.

Implementation Arrangements: The original TSCP project was implemented by the MoIT and Tonga Airports Ltd. (TAL - for aviation investments). Since all aviation investments will be

completed under the existing project, TAL is not involved in implementation of the AF. The existing TSCP project implementation arrangements—excluding TAL—will remain under the AF, including the PMU and Project Steering Committee (PSC).³ The PSC has been operating effectively and providing satisfactory oversight of project management and implementation. The Working Group within MoIT, which had been established under the original project to provide technical guidance and oversight, will not be continued under the AF as it is seen as an unnecessary additional layer of oversight in circumstances where the PSC has otherwise satisfactorily performed this function.

All project activities will be implemented by the existing PMU based in MoIT, which currently consists of a Project Manager (who also serves as Contracts Manager), Project Assistant and Procurement Officer. A Project Accountant for TSCP is currently shared with TCIRCRP. A new Project Accountant for TSCP will be recruited and the appointment of this position is an effectiveness condition.

Retroactive Financing: SDR 200,000 will be available under the additional IDA grant for expenditures incurred prior to August 18, 2015

Current Component Name	Proposed Component Name	Current Cost (USD m)	Propose d Cost (USD m)	Action
A: Establishment of a Sustainable Transport Policy, and Institutional and Operational Framework.	No change in Component name.	1.59	1.59	Same costs
B: Compliance with Mandatory Safety and Security Standards	No change in Component name.	5.95	7.62	Revised costs
C: Supporting the Transition towards Sustainability in the Transport Sector	No change in Component name.	5.93	8.82	Revised costs
D: Project Implementation Support	No change in Component name.	1.29	1.73	Revised costs
Foregone taxes and operating costs (GoT)		2.33	3.33	Revised costs

³ The PSC consists of representatives from the Ministry of Finance and National Planning, Ministry of Infrastructure and Tourism, Ministry of Public Enterprises, and the Ministry of Meteorology Energy Information, Disaster Management, Environment, Climate Change and Communication.

	Total:	17.09	23.09							
Other Change(s)										
Change in										

Procurement

Explanation:

Annex 3 provides the proposed procurement plan (dated August 18, 2015). Procurement under the restructured project and AF will be carried out in accordance with the Bank's most recent versions of the Procurement and Consultant Guidelines – dated January 2011 and revised July 2014 "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers." During 2015, the PMU's Procurement Officer will be supported by the Senior Procurement Advisor funded through TCIRCRP.

IV. Appraisal Summary

Economic and Financial Analysis

Explanation:

The economic analysis of the AF was performed based on the contribution of the AF to achieving the PDO of improving safety and security facilities and compliance with international safety and security standards. The improvements in the maritime and land transport sectors envisaged under the project are expected to have significant positive impact to the users of domestic transport in Tonga. Investments that improve the safety of domestic transport have substantial benefits in terms of more reliable access to markets, education and health services, as well as facilitating tourism.

The economic evaluation of this project focuses on the US\$5.0 million of investments (i.e. excluding the GoT's contribution in the form of foregone taxes) associated with the AF. The analysis covers a 10-year period (2015-2024) based on the AF's contributions to ensuring port operations in the outer islands, addressing relevant safety issues, and reducing road accidents. Therefore, the analysis focused on: (i) the possible disruption of port operation due to lack of maritime safety; and (ii) the impact of safer roads.

It is estimated that transport sector investments under AF will yield an economic internal rate of return (EIRR) of 21% and a net present value (NPV) of US\$2.03 million, assuming one percent of households consumption expenditure is lost due to a lack of boat navigation safety in 'Eua and the project investments will reduce road accidents by 20 percent. The original project (2008) was primarily a reform project and because of this, it was not easy to carry out a traditional costbenefit analysis involving internal economic rates of return, a sensitivity analysis and net present values. Instead, the economic assessment was done using measures of cost effectiveness. The improvements from the 2010 Additional Financing included positive economic impacts for both direct users and the country as a whole. Therefore, combined with the quantified EIRR and NPV, the overall project presents substantial benefits. The proposed project will improve domestic air,

sea, and land transport and related access to markets, education and health services, while facilitating tourism, generating employment, and reducing poverty. Improvements to the roads addressed by the funding have had social benefits, which are not quantifiable using traditional economic analysis that typically focus on measuring savings in vehicle operating costs and reductions in travel times.

Technical Analysis

Explanation:

The project design is technically sound and reflects experiences since the project started in 2008 and adopts lessons learnt from other projects across the sector. Civil works under the project will be carried out in accordance with best practice and relevant national and international standards. The choice of technology for undertaking maritime improvements will be governed by both what is appropriate for meeting national and international technical standards. Design services and technical expertise will be provided to ensure the civil works are technically sound and applicable for Tonga. Additional support for supervision of these works will be provided where required to prevent unsuitable construction.

Social Analysis

Explanation:

It is anticipated that the proposed AF activities will have positive social and health benefits for both men and women through improved safety measures in the land and maritime sectors. Safe, reliable and affordable transport in Tonga is crucial in linking communities to markets and in improving livelihoods. There are gender differences in travel patterns in Tonga. Like men, women in Tonga are active road users but they are also more likely to make multiple trips, requiring multiple stops, and are three times more likely to travel with small children. Women tend to be more concerned with pedestrian safety, particularly around schools, as they are more likely to walk. In a recent study in Tonga, 50% of women surveyed stated dangerous driving as their primary transport concern and 100% of both men and women surveyed supported the increased use of child safety measures.

The proposed land transport civil work activities are minor improvements to intersections to address road safety issues and minor road maintenance. The activities do not include land acquisition or realignment of any road and do not have any significant negative social impacts. The activities will provide important social and health benefits to the communities of the project areas in terms of positive reductions in road safety accidents and injuries and improved access to key transportation services by the communities.

<u>Gender</u>: Gender outcomes in Tonga are similar for women and men in education and most health areas. Both maternal and infant mortality rates have remained on a steady decline, and are the lowest in the Pacific. In addition, while female political representation remains low from a regional perspective, Tonga is one of the best performers in the region in terms of women at senior levels of the bureaucracy. There are opportunities, however, to further economic empowerment for women, including equality in paid employment and improved access to finance and collateral. Gender-based violence also remains an issue.

Women in Tonga are very active in the informal sector where they constitute the majority of entrepreneurs leading small and micro enterprises. They are active in the production of handicrafts, cash crops, coastal fisheries, and small retail. As the income of these activities can account for up to 80 percent of total household income, particularly in rural areas, access to reliable and affordable transport is crucial to household livelihoods. Independent of the project, a gender specific mobility study has been proposed as part of a Bank gender proposal for the Pacific region to: (i) better understand the gender needs and impacts of transport access and infrastructure in Tonga and (ii) foster the planning of future transport investments to maximize economic and social benefits for both men and women. If the proposal is funded, the analysis for Tonga could provide useful data on transport patterns, public transport needs and safety concerns for both men and women in relation to TSCP projects and related future investments.

Environmental Analysis

Explanation:

The original project was rated as a Category C project since investments in civil works were very limited. However, in 2010 under the project's first AF the project was reclassified as a Category B project due to the inclusion of major civil works activities for road maintenance and maritime investments. The activities proposed under the AF are consistent with the Category B rating and will have similar scale impacts on the environment as the existing project activities.

The project has been operating effectively from a safeguards point of view since the last restructuring in 2010. The existing Environmental Management Plan (EMP) is integrated into the technical design and civil works contracts for the appropriate investments with an explicit requirement for the preparation of a detailed contractor's EMP (CEMP). MoIT will continue to be responsible for safeguards' management, compliance and reporting, with inputs from the Ministry of Meteorology Energy Information, Disaster Management, Environment, Climate Change and Communication (MEIDECC).

The EMP for TSCP was originally prepared and disclosed on July 30, 2010. This was later amended and the revised EMP was disclosed October 17, 2013. For the AF, the EMP was further revised and disclosed at the InfoShop on July 9, 2015, and in-country on July 30, 2015. Anticipated environmental activities financed by the AF will be small, if not negligible, local and confined to the immediate vicinity where they may occur and can be readily avoided and or easily mitigated through widely available and tangible mitigation measures. The physical investments to be financed under the AF will be confirmed during implementation and are planned to be completed during the second year of implementation. The existing EMP will be integrated into the technical design and civil works contracts for the appropriate investments with the explicit requirement for the preparation of a detailed contractor's EMP (CEMP). In addition to the CEMP requirement/guidance, a requirement for an effective grievance redress mechanism has also been included in the EMP.

The specific maritime works for improving wharves, passenger and cargo facilities will be confirmed after scoping studies to be completed during the first year of implementation. These works are considered a scaling up of maritime investments under the original project but which were not completed because the funding available was not sufficient to cover all activities recommended in the maritime needs assessment. All works, including road maintenance activities, will be undertaken on existing infrastructure. If the proposed activities are not covered by the existing EMP, it will be updated to reflect the necessary changes and disclosed again. Should any changes have the potential for more substantial impacts, a limited Environmental and Social Impact Assessment (ESIA) will be prepared and the respective instrument consulted upon, approved by the Bank and disclosed.

Risk

Explanation:

The overall risk of the AF is Substantial. Because the design of the AF is a continuation of the existing project and the implementation of the project has been rated Satisfactory since December 2013, the risk of the project design remains low.

There are two high and two substantial risks associated with the AF. A new Government was recently elected and there are political and governance risks of changes or delays with the change management process, which could impact plans for divestiture. In light of this, the project will work with the Government to update the "To Be" vision for the MoIT, as well as to inform the Government of the benefits from the current change management process.

There is substantial fiduciary risk due to the recent ratings of MoIT's financial management of TCIRCRP (P150113), an IDA-financed project, which provides financial management and procurement support to TSCP's PMU. GoT's Audit Office recently completed a review of the TCIRCRP PMU that uncovered non-adherence to agreed practices for approval of payments. To remediate this issue, stronger financial management oversight is being instituted for both the TSCP and TCIRCRP wherein the Ministry of Finance will provide independent oversight and clearances of all procurement and financial management transactions. A separate Accountant will be recruited for TSCP.

V. World Bank Grievance Redress

16. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Redress Grievance Service (GRS). please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring Indicators TONGA: Transport Sector Consolidation Project – Additional Financing Results Framework

Revisions to the Resu	ılts Framework	Comments/ Rationale for Change
PDO		8
Current (PAD)	Proposed	
To assist the Recipient to develop its transport sector to have: (i) stronger policy, planning, and regulatory institutions and framework; (ii) improved safety and security facilities and compliance with international safety and security standards; and (iii) greater domestic capacity for road rehabilitation and maintenance.	No change.	
PDO Indicators		
Current (PAD)	Proposed change*	
MOT integrated ministry: MOT functioning as a fully integrated ministry responsible for compliance and safety oversight of land, sea and air transport.	Continued.	
	(<i>New Indicator</i>) Transport policy framework developed.	The indicator aims to track the development of policy/planning principles and a legislative framework for the transport sector to adequately capture the first dimension of the PDO.
	(<i>New Indicator</i>) Change management process implemented and creation of appropriate transport policy and planning units.	The indicator seeks to track the establishment of institutional core functions for sectoral policy, planning and regulation activities to adequately capture the first dimension of the PDO.
	(<i>New Indicator</i>) Road maintenance fund created and operational.	The indicator tracks the continued operation of the current Road Maintenance Fund which will help support a sustainable road maintenance industry to adequately capture the first dimension of the PDO. Under the project, the GoT will deposit US\$1 million equivalent to the fund which will be used to procure works through local contractors.
ICAO certification for Fua'amotu: ICAO certification of safety and security at Fua'amotu airport.	No change.	
Safe maritime systems: Proper systems in place for safe maritime travel.	No change.	
Consultant / contractors capacity: Consultants as well as small and medium domestic contractors with	No change.	The indicator remains to track completion of remaining road maintenance contract works, which are

Revisions to the Resu	ılts Framework	Comments/ Rationale for Change
capacity for implementing effective road maintenance.		expected to be completed by December 2015.
Number of kilometers of roads under regular maintenance.	Continued.	
Number of rural roads rehabilitated.	Continued.	
Number of non-rural roads.	Continued.	
Roads in good and fair condition as share of total classified roads.	No change.	
	<i>(New Indicator)</i> Improved road safety management systems	This indicator reflects the effective implementation of (i) road safety audit; (ii) improvements to infrastrucutre to reduce accident risk; (iii) implementation of road safety campaigns.
Intermediate Results Indicator		
Current (PAD)	Proposed change	
Appropriately skilled staff recruited by MOT and equipped to fulfill their respective mandate.	No change.	Continues to track the institutional strengthening and capacity building effort within the MoIT.
Completion of aviation, land transport, and maritime sector investment plans.	Dropped.	Each of the sectors have investment plans that have been adopted and are being implemented.
Improved security arrangements and compliance with requirements for international air transport.	Dropped.	No longer covered under the project as TAIP is now addressing full security compliance.
Installation of maritime safety equipment completed.	No change.	New maritime infrastructure investments proposed.
Number of domestic consulting firms with full capability to design and supervise road maintenance.	Dropped.	The capacity development of the local industry was done under the existing project and is not the focus of the additional finance.
Number of domestic small and medium sized domestic contractors trained and participating in bidding.	Dropped.	There are no proposed road maintenance investments under project that could be monitored.
	(<i>New Indicator</i>) Percent of grievances related to project benefits resolved.	Citizen engagement indicator.

REVISED PROJECT RESULTS FRAMEWORK

			Baseline Original	Drogross To		Cumulative	Farget Val	lues			Responsibility	
PDO Level Results Indicators	Core	UO M ⁴	Project Start (2008)	Progress To Date (2015)	2015	2016	2017	2018	Frequency	Data Source/ Methodology	for Data Collection	Comments
 MOT integrated Ministry focusing on policy and planning 		Text	No unified transport sector policy planning and regulatory ministry					One transport ministry responsible for transport planning				
2. Transport policy framework developed and sub-sector policies defined.		Text	No transport policy framework and sub-sector policies	1. Transport framework drafted 2. Aviation Sector Policy and Strategic Plan completed. 3. Maritime Sector Strategy drafted.	RMF created. An Airports Authority Act is drafted	TAL core functions & responsibi lities developed	'To-Be' vision of MoIT drafted.	Transport policy framework developed and sub-sector policy directions defined.	Annual	Supervision missions, progress reports	MoIT, PMU	
3. Change management process implemented and creation of appropriate transport policy and planning units		Text	No institutional core functions for sectoral policy, planning and regulation activities.		Core MoIT divisions created to focus on policy, planning and regulation of transport sub-sector core activities.		Strategic staffing plan drafted.	At least 50% of staff positions filled according to strategic staffing plan.	Annual	Supervision missions, progress reports	MoIT, PMU	Core MoIT division: created for Maritime and Ports; Civil Aviation; Land Transport; Policy an Planning; Building; Corporate Services.
4. Road maintenance fund created and operational		Text	No funds to finance emergency, routine and periodic maintenance road works.	LTD Board and Road Fund created. Request for fund commitment to Road Fund	Fuel levy and license fees established to finance Road Fund.	Revenues from fuel excise tax, vehicle license fees and		20% of overall road maintenance activities financed by RMF.	Annual	Supervision missions, progress reports	MoIT, PMU	

⁴ UOM = Unit of Measurement.

		Certification of the	submitted to Cabinet.		traffic fines to be deposited in fund on regular basis.						
5. ICAO certification for Fua'amotu		Fua'amotu International Airport was achieved on April is in accordance with TCAR Parts 139 and 157 since 2008.					Certification continues to be effective, ACM updated, and training undertaken, as needed.				
6. Safe maritime systems: Proper systems in place for safe maritime travel.	Text	Sea navigation aids missing or in disrepair and ferry terminals in poor condition and without lights.	Maritime needs assessment completed. Procurement & installation of navigation aids in all five island groups. Minor safety works at the ferry terminals.	Further recommenda tions from needs assessment implemented	Works scoping & safeguard assessmen ts completed	Identifie d works underwa y.	80% of maritime infrastructure under TSCP AF has safety measures completed.	Annual	Supervision missions, progress reports	MoIT, PMU	Additional works recommended under maritime needs assessment commence in year 2 once safeguards and preliminary design completed by end of year 1.
7. Consultant / contractors capacity: Consultants as well as small and medium domestic contractors with capacity for implementing effective road maintenance	Text	Road maintenance done by international contractors or public sector (Ministry of Works).	20 km of periodic maintenance completed by local contractors (3 contractors won 4 contracts). Approximatel y 10 km of periodic maintenance underway – 1 local contractor won 3 out of the 4 contracts. 462 km of the network routinely	30 km of periodic road maintenance completed by Tongan companies. A further 462 km maintained for at least two consecutive years by Tongan companies.				Annual	Supervision missions, progress reports	MoIT, PMU	Year 1 Program successfully completed. Year 2 routine maintenance programs awarded, and periodic works for all 4 periodic maintenance contracts underway. Local contractors successfully bid on all contracts and win all but one road maintenance contract offered under Year 2 program. Year 2 contracts completed in 2015.

			maintained for two years by local contractors (6 different local contractor s were awarded the works over 2 years).								
8. Number of kilometers of roads under regular maintenance	No.	0	462	462	462	462	462	Annual	Supervision missions, progress reports	MoIT, PMU	Year 1 routine maintenance program successfully maintained 462 km of roads. Year 2 routine maintenance program has awarded 7 contracts to maintain 462 km of roads to a higher level of service than in Year 1. Year 2 contracts will be completed 2015. The Road Maintenance Fund will continue funding the routine maintenance works. No new road works will be funded under TSCP AF.
9. Number of rural roads rehabilitated	No.	0	18.5	35	35	35	35	Annual	Supervision missions, progress reports	MoIT, PMU	18.5 km of periodic maintenance has been completed on rural roads. A further 6.0 km is under construction on rural roads under the remaining two Year 2 contracts, expected to be completed in 2015. Under the Year 2 General Routine Program, 40 km of patrol grading has been added to the contracts.
10. Number of non-rural roads rehabilitated	No.	0	3.50	5	5	5	5	Annual	Supervision missions, progress reports	MoIT, PMU	3.5 km of periodic maintenance has been completed on non- rural areas of the road network under the

													Year 1 and Year 2 contracts. A further 1.5 km of periodic maintenance on non- rural roads is underway. These contracts are expected to be completed in 2015. No new road works will be funded under TSCP AF.
11. Roads in good and fair condition as share of total classified roads	%	10	10	60	63	68	70	Annı	ıal	Supervisio missions progress rep	s,	MoIT, PMU	network in good and fair condition. The baseline is assumed. No new road works will be funded under TSCP AF.
12. Improved road safety management systems	Text		Road safety audit completed.	Road safety deficiencies related to signs, marking, delineation and roadside hazards identified.	Reduction of roadside hazards and improvem ents of network delineatio n and signage.	Improve ments of pedestria n and school roadside marking and village threshol ds.	Two road safety campaigns completed a improveme in compliar (%) of seat belt usage r in 'Safe Corridor'de nstration program.	and int ince Annu rate	ıal	Supervisio missions progress rep	s,	MoIT, PMU	Currently, no road rules exist requiring wearing of seatbelts or securing of babies/infants in car seats. Effectiveness of road safety campaigns to address safety issues monitored in a 'Safe Corridor' demonstration program to support implementation of interventions aimed at improving the safety of road infrastructure and operations.
			I	ntermedia	te Result	s and In	dicators						
Intermediate Results Indicators	Core	Unit of Aeasurement	riginal Progr roject To D Start (201 2008)	ate 2015	Target 2016	Values 2017	2018	Frequency	Data So Methoo		Respon for I Colle		Comments

1. Appropriately skilled staff recruited by MoIT and equipped to fulfill their respective mandate.		Text	MoIT insufficientl y staffed to fulfill its obligations	Directors for Maritime and Ports and CAD appointed. MoIT currently has an advisor to support LTD.	Permanent Director for Land Transport Division appointed.	MoIT staffing strategy drafted.	MoIT staffing strateg y implem ented.	Senior positions at MoIT filled with qualitied staff and number of day workers as a percent of total MoIT workforc e not more than 5%.	Annual	Change Management Advisor reports, Supervision missions, progress reports	MoIT	Recruitment of a permanent Director of Land Transport is an outstanding legal covenant of TSCP. However, MoIT has complied with other aspects of this covenant by recruiting permanent staff for other key roles identified. With MoIT's focus on policy and regulation, there should not be a need for day workers. If undertaking essential tasks, they should become part of the full time MoIT staff, otherwise the roles should be phased out.
Intermediate Result 2:	High	Priority Investm	ents in Mari	time Infrast	tructure.							
2. Maritime aids to navigation installed in outer islands.		Text		Aids to navigation installed in all five island groups. Safety works at ferry terminals complete. Additiona l works and navigation al aids installed.	Priority maritime safety aids identifie d in 2011 needs assessme nt installed and operatio nal.	Addition al navigati onal aids supplied.		Followin g aids installed: 17 units of navigatio navigatio n buoys; 3 navigatio n towers; and 3 navigatio n lights.	Annual	Supervision missions, progress reports	MoIT, PMU	

5. Percent of grievances related to project benefit resolved.		%		0	100	100	100	100	Annual	Supervision missions, progress reports	MoIT, PMU	New indicator for citizen engagement. The target is to resolve all grievances on the project, across all years of implementation.
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Annex 2: Detailed Project Financing

1. It has been confirmed that GoT will provide US\$2.00 million to the project for a total project cost of US\$6.00 million. Table 1 shows the financing allocations by component for the original, the restructured project as a result of the 2010 AF, and the proposed changes under this AF.

Component	Original Cost PAD	Restructured 2010	Changes with AF	Revised Cost
A: Establishment of a Sustainable Transport				
Sector Policy, and Institutional and	1.00	1.59	0.00	1.59
Operational Framework				
B: Compliance with Mandatory Safety and	2.72	5.05	1 67	7.62
Security Standards	2.12	5.95	1.67	7.02
C: Supporting the Transition towards	0.45	5.02	2.90	0.07
Sustainability in the Transport Sector	0.45	5.93	2.89	8.82
D: Project Implementation Support	0.41	1.29	0.44	1.73
Unallocated	0.86	0.00	0.00	0.00
Sub-Total:				
(IDA / Counterpart Financing):	5.44	14.76	5.00	19.76
Taxes:	1.04	2.33	1.00	3.33
Totals:	6.48	17.09	6.00	23.09

Table 1: Revised Costs by Component (US\$ million)

2. Table 2 shows the revised financing plan.

Table 2: Financing Sources (US\$ million)

	Local	Foreign	Total
Source			
Government of Tonga Counterpart Financing (2008 and 2010)	2.32	0.00	2.32
IDA Grant (2008)	2.28	3.18	5.46
Government of Australia financing through PRIF (2010)	3.86	5.45	9.31
IDA Credit (2015) - New	1.10	0.90	2.00
IDA Grant (2015) - New	1.10	0.90	2.00
Government of Tonga Counterpart Financing (2015) - New	1.80	0.20	1.00
Totals:	12.46	10.63	22.09

3. Table 3 summarizes the costs by each component and sector.

Component	Sector	Estimated Cost		Percentage of Finance		
_		Current	With AF	Current	With AF	
A:	Aviation	0.52	0.52	3.50%	2.63%	
Establishment	Land Transport	0.68	0.68	4.60%	3.44%	
of a Sustainable	Maritime	0.35	0.35	2.40%	1.77%	
Transport						
Sector Policy,						
and Institutional						
and Operational						
Framework						
B: Compliance	Aviation	2.83	2.83	19.20%	14.31%	
with Mandatory	Land Transport	0.12	0.12	0.80%	0.61%	
Safety and	Maritime	2.81	4.72	19.00%	23.87%	
Security						
Standards						
C: Supporting	Aviation	0.10	0.10	0.70%	0.51%	
the Transition	Land Transport	5.54	8.04	37.50%	40.67%	
towards	Maritime	0.10	0.72	0.70%	3.64%	
Sustainability in						
the Transport						
Sector						
D: Project	Aviation	0.43	0.43	2.90%	2.18%	
Implementation	Land Transport	0.41	0.63	2.80%	3.19%	
Support	Maritime	0.41	0.63	2.80%	3.19%	
	Unallocated:	0.47	0.00	3.20%	0.00%	
	Sub-Total:	14.77	19.77			
	GoT (Taxes):	2.32	3.32			
	Totals:	17.09	23.09]		

 Table 3: Summary of Project Investments by Sector and Component (US\$ million)

Contract Reference	Description	Estimated Cost (USD)	Procurement Method	Start Date	Sign Date	Bank Review (Prior/Post)	Comment
GOODS					•		
MOI/AF-LTD/SHPG-C01	Asset Management System	100,000	SHP	1/02/2016	14/03/2016	Post	
MOI/AF-CSD/SHPG-C03	GIS equipment and training	50,000	SHP	1/03/2016	12/04/2016	Post	
MOI/AF-MPD/	Navigational Aids	250,000	SHP	01/02/2016	01/05/2016	Post	
	Sub-Total Goods:	400,000					
SERVICES							•
MOI/AF-LTD/	Assessment, Transport Sector Reforms	70,000	CQS	15/10/2015	15/12/2015	Post	
MOI/AF-CSD/IC-C05	Technical Advisor for ICT	18,000	ICS	1/12/2015	12/01/2016	Prior	
MOI/AF-LTD/CF-C03	Improvement of LTD & PPD Management	940,000	QCBS	2/11/2015	22/06/2016	Prior	Technical Advisors for: (i) Road Safety Campaign; (ii) roads and traffic; (iii) pavement and asset management; (iv) change management; (v) transport planning and LTD; and (vi) training.
MOI/AF-MPD/CF-C18	Maritime Safety Improvement Design Services	250,000	CQS	4/01/2016	2/06/2016	Prior	
MOI/AF-MPD/IC-C06	Technical Advisor Maritime	240,000	ICS	15/01/2016	26/02/2016	Prior	
MOI/AF-PST/IC-D01	Project Manager	150,000	ICS	2/11/2015	14/12/2015	Prior	
MOI/AF-PST/SSS-D02	Contracts Manager	45,500	SSS	2/11/2015	21/12/2015	Prior	Renew existing Contract with TSCP
MOI/AF-PST/SSS-D03	Project Accountant	45,500	ICS	3/11/2015	22/12/2015	Prior	
MOI/AF-PST/SSS-D04	Procurement Officer	45,500	SSS	2/11/2015	21/12/2015	Prior	Renew existing Contract with TSCP
MOI/AF-PST/SSS-D05	Project Assistant	37,000	SSS	2/11/201/	21/12/2015	Prior	Renew existing Contract with TSCP
	Sub-Total Services:	1,841,500					
WORKS							·

Annex 3: Procurement Plan, Year 1 (August 18, 2015)

MOI/AF/SHPW-C MoI	Office Fit-Out	50,000	SHP	1/02/2016	14/03/2016	Post	
Sub	-Total Works:	50,000					
	Total:	2,291,500					

Annex 4: Economic and Financial Analysis

4. The economic analysis of the AF was performed based on the contribution of the AF to achieving the PDO of improving safety and security facilities and compliance with international safety and security standards. The improvements in the maritime and land transport sectors envisaged under the project are expected to have significant positive impact to the users of domestic transport in Tonga. Any investments that improve the safety of domestic transport has substantial benefits in terms of access to markets, education and health services, as well as facilitating tourism.

5. The economic evaluation of this project focuses on the AF of the Tonga Transport Sector Consolidation Project (TSCP) in the amount of US\$5.0 million. The analysis covers the period of 10 years (2015-2024) based on the AF's contribution to ensuring port operations in the outer islands, addressing relevant safety issues, and the reduction of road accidents. Therefore, the analysis focused on (a) the possible disruption of port operation due to lack of maritime safety, and (b) the impact of safer roads.

6. It is estimated that the investments in the transport sector with the project will yield an EIRR of 21 percent and an NPV of US\$2.03 million, assuming **one percent of households consumption expenditure is lost** due to a lack of boat navigation safety and the project investments will **reduce road accidents by 20 percent**. If the loss of expenditure and reduction in accidents are underestimated, the return on the investment will be higher.

7. A disruption in port operation will negatively affect the flow of goods coming in and going out as well as the flow of passengers, who will have to embark/disembark at anchor. With the decreased efficiency, fewer trips would be undertaken. The expected impact would be a decrease in economic activity, measured by 'Eua's household expenditure. Based on national statistics⁵, 'Eua's household consumption expenditure is about 10.3 percent of the total household consumption expenditure (which is 86 percent of GDP), half of which is the consumption of imported goods. With the assumption of one percent GDP growth, 'Eua's household expenditure is estimated to be US\$21.7 million in 2015 and growing to US\$23.04 million in 2024 as the baseline.

8. Without the project, it is assumed that the port would cease operation by 2019 where the economic activities will be reducing due to fewer goods and fewer passengers. 'Eua's household consumption expenditure is assumed to decrease by a conservative estimate of two percent.⁶ The impact on education and health could be quite negative, as air transport cannot fully compensate for water transport due to capacity and weight restrictions, which will also result in cost constraint.

⁵ <u>http://www.spc.int/prism/tonga/index.php?option=com_content&view=article&id=60&Itemid=312#household-expenditure-including-sum-of-household-consumption-expenditure-and-non-consumption-expenditure-etc</u>

⁶ The cessation in operation would largely affect education and health sectors on 'Eua as many people might not travel, as planes would not be able to compensate all travels. The household expenditures on Education and Medical/health alone currently constitutes about 2.4 percent of total household expenditures on 'Eua.

9. On road safety, the true cost of road accident for 2015 is estimated to be US 4.59 million⁷ and growing to US 5.02 million in 2024 based on the one percent GDP growth assumption. It is assumed that the project will reduce road accidents by 20 percent from the baseline.

10. The benefit of undertaking the project in 2015 is that: (a) the port will continue its operation through 2019; and, (b) road accidents will reduce by 20 percent. This yields the EIRR of 24 percent and the NPV of US\$2.91 based on 10 percent discount rate.

11. Although neither the precise costs associated with a possible lack of port operations without the project nor how much 'Eua's household expenditures and road accidents would be affected is known, the EIRR variation of these three key factors accounts for different scenarios which are illustrated in the figure below.



⁷ Based on traffic accident data 2007-2013, and the International Road Assessment Programme (iRAP) study - the "True Cost of Road Crashes."

Annex 5: Lessons Learned from Past Operations in the Country/Sector

1. The project design builds on lessons learned from the existing Bank projects in Tonga, in particular the lessons already learned from the implementation of TSCP since 2008, TAIP since 2012, and the TCIRCRP since 2014. The key lessons that have been reflected in the project design are:

- (i) Customary land and involuntary resettlement issues in the Pacific are complex and require a lengthy resolution process. The project avoids activities with resettlement implications. No new roads will be financed by the project that extend beyond existing boundaries.
- (ii) Complex high-technology computerized systems have a poor track record of sustainability in the Pacific. Accordingly, the ICT and asset management systems for MoIT will be "fit for purpose" systems that do not require any specialized hardware, are easy to operate with basic computer skills and minimal training, do not require expensive data collection activities to keep up-to-date, are based on familiar technology (such as spreadsheets) and can be supported locally or remotely at low cost.
- (iii) Previous experience has shown that Consultants/Advisors who have worked closely with the Client have provided the needed technical expertise and advice on international best practices, and staff within the agencies are generally mentored through the process. This has been proven to maximize skills while fostering knowledge transfer that supports a sustainable change process.