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Report No: PAD2742

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR25.50 MILLION
(US\$35.75 MILLION EQUIVALENT)

TO THE INDEPENDENT STATE OF SAMOA

IN SUPPORT OF THE

PACIFIC CLIMATE RESILIENT TRANSPORT PROGRAM, SERIES OF PROJECTS

FOR A

SAMOA CLIMATE RESILIENT TRANSPORT PROJECT

September 6, 2018

Transport & Digital Development Global Practice
East Asia And Pacific Region

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CURRENCY EQUIVALENTS

Exchange Rate Effective June 30, 2018

Currency Unit = Samoan Tala (SAT)

SAT 2.57 = US\$1

US\$1.40657 = SDR1

FISCAL YEAR

July 1 – June 30

Regional Vice President: Victoria Kwakwa

Country Director: Michel Kerf

Senior Global Practice Director: Jose Luis Irigoyen

Practice Manager: Almud Weitz

Task Team Leader(s): Sean David Michaels

ABBREVIATIONS AND ACRONYMS

ACEO	Assistant Chief Executive Officer
ADB	Asian Development Bank
ARAP	Abbreviated Resettlement Action Plan
CERC	Contingency Emergency Response Component
CPMU	Centralized Project Management Unit
CRRS	Climate Resilient Road Strategy
CRWCR	Enhancing the Climate Resilience of the West Coast Road Project
CTSSU	Centralized Technical Services Support Unit
DFAT	Department of Foreign Affairs and Trade
DFIL	Disbursement and Financial Information Letter
DRIVER	Data for Road Incident Visualization, Evaluation and Reporting
EA	Executing Agency
EIRR	Economic Internal Rates of Return
ERAP	Enhanced Road Access Project
ESA	Environmental and Social Assessments
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FM	Financial Management
GBV	Gender-based Violence
GCLS	Grievance Complaint Logging System
GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Reduction and Recovery
GoS	Government of Samoa
GP	Global Practice
GRM	Grievance Redress Mechanism
IA	Implementing Agency
ICR	Implementation Completion and Results Report
IDA	International Development Association
IFR	Interim Financial Reports
IPF	Investment Project Financing
LARP	Land Acquisition Resettlement Plan
LTA	Land Transport Authority
M&E	Monitoring and Evaluation
MCIL	Ministry of Commerce Industry and Labour
MNRE	Ministry of Natural Resources and Environment
MOF	Ministry of Finance
MWCSD	Ministry of Women, Community and Social Development
MWTI	Ministry of Works, Transport and Infrastructure
NOLA	Nuanua O Le Alofa
NPV	Net Present Value
OHS	Occupational Health and Safety

OM	Operations Manual
PACCSAP	Pacific-Australia Climate Change Science and Adaptation Planning Program
PAD	Project Appraisal Document
PCRTP	Pacific Climate Resilient Transport Program
PDO	Project Development Objective
PIC	Pacific Island Country
PMD	Project Management Division
PPSD	Project Procurement Strategy for Development
PTRP	Post Tsunami Reconstruction Project
SAA	Samoa Airport Authority
SAIP	Samoa Aviation Investment Project
SAMS	Samoa Asset Management System
SAT	Samoa Tala
SCD	Systematic Country Diagnostic
SCRTP	Samoa Climate Resilient Transport Project
SDR	Special Drawing Rights
SIAM	Samoa Infrastructure Asset Management Project
SIAM-2	Second Infrastructure Asset Management Project
SISRI	Small Islands States Resilience Initiative
SFESA	Samoa Fire Emergency Services Authority
SOLA	Samoa Open Land Administration
SOP	Series of Projects
SORT	Systematic Operations Risk-rating Tool
SPCR	Strategic Program for Climate Resilience
SPD	Standard Procurement Document
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
TCE	Tropical Cyclone Evan
TDD	Transport and Digital Development
TISCD	Transport and Infrastructure Sector Coordination Division
TISAC	Transport and Infrastructure Sector Advisory Committee
US\$/USD	United States Dollar
VA	Vulnerability Assessment
WB	World Bank
WCR	West Coast Road



BASIC INFORMATION

Country(ies)	Project Name		
Samoa	Samoa Climate Resilient Transport Project		
Project ID	Financing Instrument	Environmental Assessment Category	Process
P165782	Investment Project Financing	B-Partial Assessment	Urgent Need or Capacity Constraints (FCC)

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input checked="" type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input checked="" type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
27-Sep-2018	31-Jan-2024

Bank/IFC Collaboration

No

Proposed Development Objective(s)

Improve the climate resilience of Samoa’s road network and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

Components



Component Name	Cost (US\$, millions)
Component 1: Sectoral and Spatial Planning Tools	560,000.00
Component 2: Climate Resilient Infrastructure Solutions	27,700,000.00
Component 3: Strengthening the Enabling Environment	7,490,000.00
Component 4: Contingency Emergency Response	0.00

Organizations

Borrower:	Ministry of Finance
Implementing Agency:	Land Transport Authority Ministry of Works, Transport and Infrastructure Ministry of Natural Resources and Environment Ministry of Finance

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	35.75
Total Financing	35.75
of which IBRD/IDA	35.75
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	35.75
IDA Grant	35.75

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Total Amount
National PBA	0.00	35.75	35.75
Total	0.00	35.75	35.75



Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2018	2019	2020	2021	2022	2023	2024
Annual	0.00	1.15	5.97	9.19	7.91	6.28	5.25
Cumulative	0.00	1.15	7.12	16.32	24.23	30.50	35.75

INSTITUTIONAL DATA

Practice Area (Lead)

Contributing Practice Areas

Transport & Digital Development

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Low
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Low
4. Technical Design of Project or Program	● Moderate



5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Other	● Substantial
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants



Sections and Description

The Recipient shall maintain, throughout the Project implementation period, a Transport and Infrastructure Sector Advisory Committee, with a mandate, composition and resources satisfactory to the Association.

(Section I.A.1 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall maintain, throughout the Project implementation period within the Ministry of Finance; a Centralized Technical Services Support Unit, with a mandate, composition and resources satisfactory to the Association and a focal point, or focal points, with terms of reference, qualifications and experience satisfactory to the Association.

(Section I.A.2 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall maintain, throughout the Project implementation period, within the Ministry of Works, Transport and Infrastructure; a Transport and Infrastructure Sector Coordination Division, with a mandate, composition and resources satisfactory to the Association and a focal point, with terms of reference, qualifications and experience satisfactory to the Association.

(Section I.A.3 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall maintain, throughout the Project implementation period, a focal point within the Ministry of Natural Resources and Environment, with terms of reference, qualifications and experience satisfactory to the Association.

(Section I.A.4 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall cause Land Transport Authority (LTA) to: (a) maintain, throughout the Project implementation period, a Project Management Division (PMD) within LTA, with a mandate, composition and resources satisfactory to the Association, and a project manager within PMD, with terms of reference, qualifications and experience satisfactory to the Association; and (b) by no later than six (6) months after the Effective Date, recruit a technical advisor within PMD, with terms of reference, qualifications and experience satisfactory to the Association, and thereafter maintain such position throughout the Project implementation period.

(Sections I.A.5 and I.A.6 of Schedule 2 to the Financing Agreement)

Sections and Description

By not later than six (6) months after the Effective Date, the Recipient, through the Ministry of Finance, shall prepare and adopt a Standard Operating Procedures as accepted by the Recipient and the Association, and shall thereafter ensure that the Project is carried out in accordance with Standard Operating Procedures.

(Section I.B of Schedule 2 to the Financing Agreement)



Sections and Description

The Recipient shall enter into and maintain, throughout the Project implementation period, a Subsidiary Agreement with LTA.

(Section I.C.1 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall prepare and furnish to the Association for its approval, by August 15 of each year during the implementation of the Project (or such later interval or date as the Association may agree), an Annual Work Plan and Budget, and the Recipient shall implement the Project in accordance with the Annual Work Plan and Budget approved by the Association for the Recipient’s respective fiscal year.

(Section I.D of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall carry out, jointly with the Association, not later than three (3) years after the Effective Date, or such other period as may be agreed with the Association, a Mid-Term Review to assess the status of Project implementation.

(Section II.2 of Schedule 2 to the Financing Agreement)

Conditions

Type

Disbursement

Description

No withdrawal shall be made for Emergency Expenditures under Category (3) unless and until the Association is satisfied that all the conditions set forth in Section III.B.1(b) of Schedule 2 to the Financing Agreement have been met in respect of the said Emergency Expenditures.

(Section III.B.1(b) of Schedule 2 to the Financing Agreement)



SAMOA
SAMOA CLIMATE RESILIENT TRANSPORT PROJECT

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I. STRATEGIC CONTEXT

1. **Introduction.** This Project Appraisal Document (PAD) seeks the approval of the Executive Directors to provide an International Development Association (IDA) grant in the amount of SDR25.50 million (US\$35.75 million equivalent) to the Independent State of Samoa (Samoa) in support of the Pacific Climate Resilient Transport Program (PCRTP) Series of Projects (SOP) for a Samoa Climate Resilient Transport Project (SCRTP). SCRTP will be implemented to improve the climate resilience of Samoa's road network and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

A. Country Context

2. The Independent State of Samoa (Samoa) is a small and remote Pacific Island Country (PIC) with a population of approximately 197,000 people.¹ Samoa consists of the two large islands of Upolu and Savai'i, and eight smaller islands, and has a total land area of approximately 2,935 km.² Like many PICs, Samoa is vulnerable to extreme weather events. The Pacific-Australia Climate Change Science and Adaptation Planning Program (PACCSAP) has reported that the frequency and intensity of extreme weather and climate events, such as heavy rainfall, strong winds and storm surges is increasing, a trend projected to continue throughout the region.³ Such events cause severe damage to infrastructure and other economic assets, and have adverse effects on livelihoods. Samoa has been heavily impacted by natural disasters, particularly tropical storms and cyclones, including Cyclone Ofa (1990), Cyclone Val (1991) and Cyclone Evan (2012). The combined impacts of Ofa and Val included 21 fatalities, widespread damage and total economic losses estimated as high as US\$500 million, equivalent to about four times the country's gross domestic product (GDP) at the time.⁴ According to the Damage and Loss Assessment following Tropical Cyclone Evan (TCE), the combined physical damage and economic losses to transport infrastructure, houses, and tourism facilities were estimated at US\$204 million, approximately 28 percent of the total value of goods and services produced in Samoa in 2011.⁵ Samoa also experiences high seismic activity, and on September 29, 2009, was hit by an earthquake-triggered tsunami. As a result, there were 143 reported deaths and nearly 5,300 people were affected, mainly on the southern, eastern and southwestern coast of Upolu.⁶
3. Government officials are aware that the country's infrastructure assets, particularly roads and bridges, are vulnerable to climate change and more intense storms. Samoa is an active member of regional and global climate change fora and initiatives, and has put forth a robust program for developing economic infrastructure that addresses the risks posed by climate change. In 2013, the Cabinet approved a plan to strengthen the climate resilience and longevity of road assets throughout the country, and is taking steps to

¹ Samoa Bureau of Statistics (2017).

² Central Intelligence Agency World Fact Book – Samoa <https://www.cia.gov/library/publications/the-world-factbook/geos/ws.html>.

³ Climate Variability, Extremes and Change in the Western Tropical Pacific: New Science and Updated Country Reports. Pacific-Australia Climate Change Science and Adaptation Planning Program, 2014.

⁴ Country Risk Profile: Samoa. Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), September 2011.

⁵ Samoa Post-Disaster Needs Assessment, Cyclone Evan 2012. Government of Samoa, March 2013.

⁶ Samoa Post Disaster Needs Assessment, Following the Earthquake and Tsunami of 29 September 2009. Government of Samoa, December 2009.



strengthen the resilience of Samoa’s economic assets to extreme climatic events. Building on this, in late 2017 the Government adopted the Vulnerability Assessment (VA)⁷ and Climate Resilient Road Strategy (CRRS)⁸ prepared under the Pilot Program for Climate Resilience of the Strategic Climate Fund-financed Enhancing the Climate Resilience of the West Coast Road (CRWCR) project. The VA and CRRS reports not only identified hazards but also laid out prioritized areas for investment in the transport sector in Samoa.

B. Sectoral and Institutional Context

4. Samoa’s transport network is of critical importance to the country’s economic development. It provides connectivity that supports trade and promotes commercial activity by facilitating the movement of goods and services. It also provides safe and efficient access to social services including schools and health facilities. In addition, approximately 70 percent of the population in Samoa lives within one kilometer of the coast, and critical infrastructure including roads, hospitals, schools, places of employment, port facilities, tourist facilities, power plants and airports, are located primarily in the coastal zone. The transport network therefore faces a range of issues that increase vulnerability such as: (i) exposure to sea-level rise, storm surge, and wave action during cyclones and tsunamis; (ii) flooding and landslides associated with extreme rainfall events; (iii) damage from earthquakes; and, (iv) accelerated pavement deterioration due to extreme weather and rising water tables.
5. The VA and CRRS reports outlined an adaptation strategy that identified and prioritized specific locations that require investments to improve the climate resilience of the road network. This included short (1-5 years), medium (5-10 years) and long-term (10+ years) investments in road resilience. The VA identified three main hazards for the road network in Samoa including: (i) proximity to coastline; (ii) landslide risks; and, (iii) river crossings. Climate change will exacerbate conditions and have a direct impact on the performance of transportation infrastructure. For example, sea-level rise and associated coastal inundation risk poses a threat to low-lying and coastal infrastructure, while increases in rainfall increase the risk of landslide as well as inundation associated with river overflows. In addition, though Samoa has undertaken a range of reforms in road maintenance and management, effective routine and periodic maintenance is often lacking, which increases the vulnerability of road network assets to extreme weather events. For example, if road drains or culverts are not routinely cleared of blockages and debris, this lack of maintenance can severely exacerbate the impacts of storm surge. Inadequate maintenance regimes result in faster deterioration of assets and therefore require a greater frequency of repairs and replacement. However, clear policy direction to build resilience within the sector to address such issues can help to significantly reduce these impacts. Taking this into consideration, the recommendations of the VA and CRRS have been used to guide and prioritize investments under SCRTP and in addition have provided new methodologies to effectively plan and manage the road network.
6. The Government of Samoa (GoS) and World Bank (WB) have cooperated on several road projects for over a decade. Most recently, the WB provided assistance to the road sector through the Enhanced Road Access Project (ERAP) and CRWCR. ERAP was approved in 2013 as an emergency response project following TCE, and includes financing for key road sector assets on both main islands damaged by extreme weather events, as well as for enhancing the climate resilience of critical roads and bridges to withstand extreme weather

⁷ Vulnerability Assessment of the Samoa Road Network. Government of Samoa, 2017.

⁸ Climate Resilient Road Strategy. Government of Samoa, 2017.



events. ERAP also provides for the strengthening of institutional and regulatory reforms to enhance local capacity and the sustainability of investments in the transport sector, including technical assistance (TA) for road and bridge construction standards and axle-load limit reforms. CRWCR was approved in 2012, and aims to: (i) improve the climate resilience of the West Coast Road (WCR), the primary road linking Apia to the international airport on Upolu; and, (ii) enhance the local capacity to develop a more climate resilient road network. Component 1 of the Project includes civil works to enhance the resilience of the WCR through climate sensitive rehabilitation of the road, including raising the minimum elevation and improving drainage. Component 2 includes the development of the VA and CRRS which, as they have now been completed, are being rolled out to further prioritize investments within the road sector and guide adaptation activities. In addition, at a higher level, these documents are serving as strategic planning tools to inform the climate resilient designs of a range of infrastructure investments.

C. Higher Level Objectives to which the Project Contributes

7. PICs want and need to act urgently to improve the climate resilience of their transport networks. According to the Pacific Possible Report on Climate Disaster and Resilience, roads comprise the greatest share of PIC's combined spending on climate resilient investments, accounting for approximately 50 percent of the average costs in most PICs and over 90 percent of the average costs in the Solomon Islands and Samoa.⁹ To address this challenge, the PCRTTP SOP aims to finance activities to systematically improve the climate resilience of transport networks in PICs to natural hazards and climate change (refer to Annex 4 for details on PCRTTP SOP). SCRTTP will ensure connectivity within the road sector and build resilience to external shocks, particularly climate change. Specifically, SCRTTP will include efforts to address sector-wide challenges including: (i) capacity building; (ii) supporting reforms to address overlaps in agency and responsibilities relevant to climate resilient sector planning; and, (iii) mainstreaming climate resilience in Samoa's development.
8. The components of PCRTTP follow the four-pillared strategic framework for enhancing transport resilience adopted by the Bank's Transport and Digital Development (TDD) Global Practice (GP)¹⁰, which was subsequently incorporated into the GP's flagship report on *Moving Toward Climate Resilient Transport*¹¹ that was delivered at COP21. The *Climate and Disaster Resilient Transport in Small Island Developing States (SIDS)* report furthermore identified a framework – reflected in the design of the PCRTTP SOP – for integrating climate and disaster resilient transport interventions into decision-making and implementation to help build institutional capacity and coordination.¹² The overall concept of the PCRTTP SOP is also in line with the Small Island States Resilience Initiative (SISRI) that draws on the experiences from the WB and others in supporting climate and disaster resilience in small island states.
9. The WB Group's Regional Partnership Framework (RPF) for nine PICs was completed in 2016 for FY2017-22 (Report 120479) and built on the existing engagements in Samoa. Using the Systematic Country Diagnostic (SCD), which focuses on the need for interventions that will strengthen preparedness and resilience to

⁹ Pacific Possible: Climate and Disaster Resilience. World Bank, 2016. (Report #119111)

¹⁰ Enhancing Road Resilience in Pacific Island Countries, World Bank Assisting Adaptation to Climate Change. World Bank, 2015. (Report #102711)

¹¹ Moving Toward Climate-Resilient Transport, The World Bank's Experience from Building Adaptation into Programs. World Bank, 2015. (Report #102406)

¹² Climate and Disaster Resilient Transport in Small Island Developing States: A Call for Action. World Bank, 2017. (Report # 120998)



natural disasters and climate change, the RPF defines the following four focus areas: (i) fully exploiting the available economic opportunities; (ii) enhancing access to employment opportunities; (iii) protecting incomes and livelihoods; and, (iv) strengthening the enablers of growth and opportunities. Investments in the road sector will help build resilience to extreme weather events and improve the reliability of the network. The investments and reforms included within SCRTP will contribute to enhancing access to employment opportunities and social services, which will help protect incomes and allow people to exploit available economic opportunities.

10. In addition, the *Strategy for the Development of Samoa (SDS)* identified four priority areas and fourteen key outcomes to be achieved between the four-year period from FY2017 to FY2020. The theme of the SDS is to accelerate sustainable development and to broaden opportunities for all, with an explicit attempt to integrate climate resilience and disaster management into the priority areas. Under the third priority area *Infrastructure Sectors*, Key Outcome 10 is “Efficient, Safe and Sustainable Transport Systems and Networks”. Under the fourth priority area *Crosscutting sector – Environment*, Key Outcome 14 is “Climate and Disaster Resilience”. These goals are also echoed in the *Samoa Transport Sector Plan (2014-2019)*,¹³ as was further reiterated in the mid-term review of the plan in 2017.¹⁴ SCRTP is consistent with these themes as it seeks to improve the connectivity, safety¹⁵ and resilience of road network infrastructure investments. In addition, the SIDS Report further revealed the importance of improved maintenance in addressing the vulnerability of transport networks. Under SCRTP, efforts to improve maintenance will be enabled through technical assistance, including updates to asset management systems in Samoa and the provision of training to help effectively manage and plan a network-level maintenance strategy.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

11. The PDO is to “Improve the climate resilience of Samoa’s road network and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency”.

B. Project Beneficiaries

12. The principal beneficiaries will include the inhabitants on Upolu and Savai’i. SCRTP’s activities will help to support a range of direct beneficiaries; however, through strengthening the climate resilience of the road network, the activities will also help to deliver indirect benefits that extend beyond the local communities. The following table provides an estimate of the number of beneficiaries for potential project activities.

¹³ Samoa Transport Sector Plan 2014-2019. MWTI, 2014.

¹⁴ Medium-Term Expenditure Framework and Monitoring and Evaluation Framework for the Transport Sector in Samoa (Jan 2017).

¹⁵ SCRTP was among the first projects financed by the WB to pilot the new ‘Road Safety Screening and Assessment Tool’, applying it to the West Coast Road activity. Preliminary analysis indicates positive results with the road safety measures adopted.



Table 1. Overview of Project Beneficiaries

Project Activities	Location	Estimated Number of Beneficiaries
West Coast Road	Upolu	90,900
East Coast Road	Upolu	19,600
Afega Bridge	Upolu	90,900
Alafa'alava Road	Upolu	90,900
Lano Ford	Savai'i	45,500

13. **Persons with disabilities.** Through ERAP and CRWCR, project activities sought to improve the design of infrastructure investments in Samoa to better consider the needs of persons with disabilities by undertaking access audits. Based on the Ministry of Natural Resources and Environment (MNRE) developed access guidelines, audits were undertaken during the design stage to ensure that designs for roads and crossings were inclusive and incorporated accessibility features such as ramps and signage. Nuanua O Le Alofa (NOLA), a Samoan disability advocacy organization, undertook the access audits to inform project designs. This arrangement worked well and the use of access audits will continue under SCRTP to help inform project investments and to include the needs of persons with disabilities early in the design process.

14. **Gender.** SCRTP will address two gender-focused issues in support of project beneficiaries, as follows:

Gender gap in driver licensing. Licensing has been identified as a gender gap issue within the transport sector in Samoa. Within the population that are of an eligible age to drive, roughly 73 percent of private license holders are men while only 27 percent are women. Among commercial license holders, the gap is even larger with roughly 98 percent of license holders being men and only 2 percent women.¹⁶ Such a gender gap can have economic and social implications as it can mean that women have comparatively less access than men to economic opportunities. For example, for those women who live outside city centers and where transport options may be limited, the lack of a license can reduce access to education and employment opportunities. The cost of a license may also deter women, particularly those of a younger age group, from attaining a license and has the potential to exclude these women from the job market. Women that do not hold a commercial driver's license may also be excluded from consideration for certain jobs (e.g. the trucking industry and the operation of commercial vehicles such as buses or taxis). Furthermore, even if an individual holds a license, but does not regularly drive or own their own vehicle there are still substantial benefits to holding a license (e.g. in many countries a license is the most prevalent form of national identification and a useful tool such as for securing access to credit and applying for a job).

- *Addressing* the gender gap in drivers licensing ownership has the potential to provide opportunities for employment and may benefit women in Samoa through increased connectivity and improved access to jobs and economic activities. Furthermore, the provision of a training course may help to improve road safety.
- *Analysis* in the form of a beneficiary survey, including baseline and follow-up data, will be undertaken under Component 3 and will include a specific module that will seek to identify the barriers that lead

¹⁶ Land Transport Authority, Samoa.



to lower rates of ownership of driving licenses by women.

- Several *actions* are anticipated to be included within the Project as part of the licensing pilot based on the outcome of the findings regarding driver licensing: (i) a driver’s education/safety course and outreach program on licensing will be organized for women; (ii) for the first round of participants, the fee of the driver license will be waived by the Land Transport Authority (LTA) for women who are seeking to become first time license holders and who have completed the education/safety course; and, (iii) training will be provided to the LTA Licensing Division to upskill staff engaged on the pilot program. As part of the Results Framework, an indicator will track changes in new driver’s license registration by men and women to show an increase in the number of women who have acquired a license relative to men and compared to previous years, thereby demonstrating a reduction in the identified gender gap.

Gender-Based Violence. In recognizing the role that the WB can play in helping to effectively address GBV and VAC in WB-funded transport projects, the Project will undertake actions to prevent, mitigate and address GBV and VAC.

The Project was screened using the WB’s ‘GBV Risk Assessment Tool’ and was classified within the “Lower Risk” category because many of the project specific activities are at the lower risk end of the spectrum.

The related risks from labor influx of road works are considered relatively low in Samoa. The relatively small size of the contracts has not attracted significant interest from international contractors, and so foreign labor influx is limited. Contractors tend to hire staff from the vicinity of the project where possible.

Despite the lower risk category, due to the high underlying rates of GBV and VAC in PICs, SCRTP will still undertake a number of activities to address GBV, including but not limited to:

- Identify GBV prevention and response actors in the project area of influence;
- Inform those affected by the project of GBV risks as part of stakeholder consultations;
- Clearly define the GBV requirements and expectations in the bid documents;
- Implement codes of conduct and training for all project-related staff including contractors and sub-contractors, supervision consultants and other consultants within a footprint on the ground of the project area;
- Ensure the safeguard instruments adequately reflect the GBV-related risks—in particular the contractor’s Environmental and Social Management Plan (ESMP);
- Make available an effective Grievance Redress Mechanism (GRM); and,
- Undertake regular monitoring and evaluation (M&E) of progress on GBV activities, including reassessment of risks as appropriate.

The indicator “Instances when GBV codes of conduct are implemented on project activities” will monitor instances of mainstreaming GBV and VAC through codes of conduct.

C. PDO-Level Results Indicators

15. The project development objective of SCRTP is to improve the climate resilience of Samoa’s road network



and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency. To monitor progress toward the PDO, the following set of indicators has been identified:

- (a) Identified planning tools being used to improve climate resilience of roads.
- (b) Identified climate resilient investments constructed and in use.
- (c) Identified enabling environment solutions implemented.
- (d) Roads constructed or rehabilitated with climate resilience measures.
- (e) Water crossings constructed or rehabilitated with climate resilience measures.



III. PROJECT DESCRIPTION

A. Project Components

16. SCRTP consists of the following four components that incorporate the four pillars of PC RTP SOP (see details of project components in Annex 1):

- (i) **Component 1: Sectoral and Spatial Planning Tools (US\$0.56 million).** This component involves TA that will improve the way that climate change is addressed in Samoa's road sector and allows for the financing of updates to analytical and sector planning tools to enable policymakers to make informed decisions based on the most accurate and up-to-date information available. A program of Sub-components designed to update and improve analytical and planning tools and strategies for the road sector is proposed (refer to Annex 1, Table 1.1 for responsible Implementing Agency (IA)):
 - (a) Updating and upgrading of the hardware, software and ancillary tools in relation to the Samoa Road Asset Management System (SAMS), including conducting of trainings in relation to the system and designing the system in a scalable way to enable integration with other sector asset management systems that may be developed.
 - (b) Updating of the VA and CRRS.
 - (c) Establishing and operationalizing a centralized database for recording and analyzing road accident data.
 - (d) Providing hardware, software and ancillary tools in relation to the Solutions for the Samoa Open Land Administration (SOLA) system, including conducting of trainings in relation to such system.
- (ii) **Component 2: Climate Resilient Infrastructure Solutions (US\$27.70 million).** This Component involves feasibility studies, design and construction of identified priority road assets to improve their resilience to climate-related hazards and/or events. The integration of climate change considerations into infrastructure activities will help strengthen the resilience of assets and improve functionality of the transportation network. The VA and CRRS have guided the priorities for infrastructure improvements and have been used to inform the investments included within this Component. The following Sub-components are proposed (refer to Annex 1, Table 1.1 for responsible IA):
 - (a) Carrying out of activities to improve climate resilience of the western section of the West Coast Road between Malua and Faleolo, including supervision activities required for such work.



- (b) Supporting the assessment, design, construction and supervision activities in relation to the slope protection and stabilization and drainage works on the East Coast Road to reduce landslide and rockfall hazards and the related risks to the road assets and road users.
 - (c) Supporting the assessment, design, construction, and supervision activities to improve and/or replace bridges, culverts and fords on Upolu and Savai'i, including but not limited to, the replacement of the Afega Bridge and the Lano Ford Crossing.
 - (d) Conducting feasibility studies for upgrading the Alafa'alava Road.
- (iii) **Component 3: Strengthening the Enabling Environment (US\$7.49 million).** This Component will provide funding to support institutional and regulatory reforms for road sector asset management and maintenance, including measures to strengthen local capacity and to increase the sustainability of climate resilient road sector investments. In addition, this Component will help to strengthen coordination among relevant institutions, will look at ways in which road sector management can be improved, and will address any emerging priority issues that can help support the Government in addressing climate change risks. Proposed Sub-components include (refer to Annex 1, Table 1.1 for responsible IA):
- (a) Providing technical assistance to the LTA Project Management Division (PMD) on project management and staff training program.¹⁷
 - (b) Conduct beneficiary surveys, including surveys focusing on gender and people with disabilities, to assess the impact of the major climate resilient works carried out under the Project; and undertake a gender-informed driver licensing pilot.
 - (c) Carrying out activities to provide technical assistance and equipment to facilitate improved enforcement of axle-load limits.
 - (d) Strengthening the capacity of the GoS's Transport and Infrastructure Sector Coordination Division (TISCD) in providing support to all projects in Samoa's transport and infrastructure sector.
 - (e) Providing technical assistance to review and revise land transport sub-sector legislation and explore revenue generation options available to the sub-sector.
 - (f) Providing technical assistance to improve road safety.
 - (g) Providing trainings to sector agencies and contractors on occupational health and safety (OHS) measures.

¹⁷ Further information on these GoS agencies are provided below under the section on "Institutional and Implementation Arrangements".



- (h) Providing technical assistance to strengthen the Recipient’s capacity to address emerging priority issues that could have an impact on the Recipient’s ability to manage a climate resilient road network.
 - (i) Strengthening the capacity of the GoS’s Centralized Technical Services Support Unit (CTSSU) in providing support to all development projects of the Recipient.
 - (j) Providing technical assistance to conduct a control survey for Alafa’alava Road in collaboration with LTA.
- (iv) **Component 4: Contingency Emergency Response (US\$0.00 million).** Since PICs will remain vulnerable to climate change and severe weather events, even with the successful implementation of the first three components, supporting post-disaster recovery is an important feature of the PC RTP. This Component is designed to provide swift response in the event of an Eligible Crisis or Emergency¹⁸, by enabling the Government to request the Bank to re-allocate Project funds to support emergency response and reconstruction (refer to Annex 1, Table 1.1 for responsible IA).

B. Project Cost and Financing

17. **Financing instrument.** The Project will be financed using the Investment Project Financing (IPF) instrument through a SDR25.50 million (US\$35.75 million equivalent) IDA grant, disbursed over an implementation period of five years. A Preparation Advance (PA) of SDR2.15 million (US\$3.00 million equivalent) has been granted to start the preparatory work on the Project including field investigations, control surveys and design studies to inform investment decisions, as well as technical assistance and capacity building.
18. **Project cost and financing.** The funding allocation for each Component is summarized in the following table.

¹⁸ Defined as “an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact associated with natural or man-made crises or disasters”, Paragraph 12, Bank Policy: Investment Project Financing, *Projects in Situations of Urgent Need of Assistance or Capacity Constraints*.



Table 2. Project Costs and Financing

Project Components	Project cost (US\$ million equivalent)	IDA Financing (US\$ million equivalent)	% of total IDA Financing
Component 1	0.56	0.56	1.6
Component 2	27.70	27.70	77.5
Component 3	7.49	7.49	20.9
Component 4	0.00	0.00	0.0
Total Financing¹⁹	35.75	35.75	100

C. Lessons Learned and Reflected in the Project Design

19. **Project design.** The WB has gained considerable experience in strengthening transport sector infrastructure and in responding to, and building resilience against, natural disasters in Samoa. SCRTP will benefit from the Bank’s long-term engagement in Samoa’s road sector, and builds upon key lessons learnt from ERAP and the CRWCR. For example, given previous disaster events, revised standards for constructing and maintaining roads and bridges will be adopted to ensure that road sector assets address natural hazard and climate risks. In addition, the narrow scope of CRWCR limited the Government’s options to select between alternative investments as priorities changed. The thematically structured, yet flexible design of ERAP has however provided flexibility to the road program given competing investment priorities. As such, SCRTP will adopt a project design focused on climate resilience that provides structured flexibility to help ensure that assistance can be delivered efficiently and effectively during implementation.
20. In addition, there is synergy across the project components to address climate change in a holistic manner, including through infrastructure, legislative policies, technology, access to information and capacity building (human resources, technical and financial capacity) within a range of key government roles and institutions. Furthermore, the inclusion of the CERC component will further help to deal with unforeseeable post-disaster conditions in the event of a crisis.
21. **Institutional capacity and implementation support.** There has been high turnover of key counterparts at LTA, which has contributed to lengthy delays in implementation of works contracts under both ERAP and CRWCR. The project management support arrangements deployed at the beginning of the projects were less effective than anticipated and as a result there was a need to adjust these arrangements through the addition of technical specialists to ensure gaps in expertise were filled and to build the capacity of counterpart staff. Delays in key project procurement activities have compounded and contributed to the risk that intended work may not be completed. In addition, poor contract management has impacted the timeliness and quality of deliverables by consultants, including: (i) the unplanned expiry of consultancy contracts; (ii) untimely and poor-quality consultant reports and deliverables; and, (iii) difficulties with consultants’ staff inputs. The

¹⁹ Component costs (Components 1, 2 and 3) are inclusive of the amounts for refinancing the PA.



design of SCRTP and the implementation arrangements adopted including supporting the establishment of a CTSSU that will help ensure that sufficient support is on hand to minimize risk of delays and associated issues. Bundling of consultancy contracts, where feasible, to reduce the administrative burden on the IA will also be considered.

22. **LTA monitoring and maintenance.** Little monitoring of traffic, axle loading, and road and bridge condition is currently carried out by the LTA. To prioritize investments in road and bridge improvements and ensure this is done systematically, rather than on an ad-hoc basis, reliable data and operation of the SAMS is essential. Proactive maintenance of the network can furthermore help to reduce the impacts of climate and geophysical hazards, and minimize potential damage. The original SAMS installation was carried out in the early 2000s; upgrading of SAMS, as well as training on regular data collection, entry and modeling is required to ensure that tools remain relevant. The upgrading of SAMS is included within Component 1 of SCRTP.
23. **Cadastral survey issues.** Three different datums (Lemuta, WGS72, WGS84), have been used for ground survey works, which has resulted in issues within the road sector in reconciling the road alignment and cadastral surveys. Advance control survey work will be undertaken under SCRTP for East Coast Road and Alafa'alava Road, which will address this key bottleneck prior to design commencing and will help to reduce delays in works progressing during project implementation.
24. **Safeguards.** The level of safeguard input required for previous road projects has been substantial, and issues have been exacerbated by weak project management and a lack of safeguard counterparts within LTA. In addition, environmental and resettlement safeguard requirements are often outside the LTA's normal mandate and experience. As such, failures to reduce land requirements through design optimization and delays in resolving land acquisition issues and compensation processes have contributed (along with other aspects such as the cadastral issues above and project management issues etc.) to project implementation delays. In addition, the requirement for and time taken to fulfill safeguard requirements has on a few occasions resulted in the deferment or substitution of possible project investments. To help address these issues for SCRTP, safeguards staff within the PMD have been involved in the design of project implementation arrangements that will help to ensure satisfactory capacity for safeguards compliance. Dedicated safeguards personnel will be in place within the TISCD and the LTA PMD, as well as the high-level Specialist under the CTSSU, to allow for the effective facilitation and coordination of tasks during design phases, including design optimization to reduce land requirements and effective community consultation and documentation among other critical tasks, and to help the timely preparation and implementation of safeguard instruments in a consistent manner.
25. **Budget overruns.** During ERAP it became apparent that costs were underestimated due to relatively high consultants' rates and unit costs for works. This can be attributed to limited competition and remoteness from major markets. To mitigate the risk of cost overruns, more effort will be applied early on during project preparation to ensure cost estimates for SCRTP are as accurate as possible.
26. **Mainstreaming and coordination.** There has been weak coordination and fragmented governance between agencies within the transport sector, which has resulted in delays to project implementation. The GoS is addressing this through the new institutional arrangements that utilize a sector-wide approach to strengthen coordination efforts and oversight within the sector, which will be utilized by SCRTP (see Annex 2 for details).



IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

27. The Executing Agency (EA) for SCRTP will be the Ministry of Finance (MoF). MoF will also act as Implementing Agency (IA) for Sub-component 3(i) on strengthening the capacity of CTSSU and for Component 4 on the CERC. LTA; Ministry of Works, Transport and Infrastructure (MWTI); and MNRE will act as IAs for Sub-components under the remaining Components of SCRTP (see Annex 1, Table 1.1).
28. While the capacity for implementing complex infrastructure projects in Samoa is limited, lessons learned during the implementation of ERAP and CRWCR will be reflected in SCRTP through revised governance arrangements. The IAs will be responsible for the day-to-day implementation of SCRTP, and will be assisted by two tiers of centralized implementation support: the CTSSU and the TISCD (see Annex 2 for details). Each of the IAs will have a focal point(s) responsible for leading technical aspects of their Sub-components.
29. The CTSSU will be housed within MoF and will be staffed with four senior specialists (i.e. international consultants) tasked to provide high-level guidance, training and hands-on support on project implementation to all agencies working on development projects in Samoa in the areas of procurement, financial management, monitoring and evaluation and safeguards. The TISCD will be housed within the MWTI and be responsible for, *inter alia*, coordinating project implementation activities among the agencies working on development projects in the transport and infrastructure sector; coordinating sector reporting; coordinating training and support on project implementation between CTSSU and the agencies working on development projects in the sector; and providing support on project implementation. For SCRTP, the TISCD will be managed by a Sector Coordinator at an Assistant Chief Executive Officer (ACEO) level and staffed by Principal and Senior Officers, reflecting the expertise in the CTSSU, in the areas of procurement, financial management, monitoring and evaluation and safeguards. It will be guided by the high-level Transport and Infrastructure Sector Advisory Committee (TISAC) body. The TISAC will not be involved in the day to day implementation arrangements; the Committee will provide general sector oversight and policy guidance/direction for projects in the transport and infrastructure sector, including SCRTP (this is a similar role to that played by the Transport Project Steering Committee for both ERAP and CRWCR).
30. These implementation arrangements aim to improve efficiency through the shared use of resources. Other benefits include broader capacity development, knowledge sharing and sustainability through an official permanent governance structure, which will help to ensure the efficient and effective implementation of SCRTP.
31. MoF will act as the IA for implementation of the CERC in addition to the CTSSU. Guidance on the activation and arrangements for the CERC are included in Annex 5.

B. Results Monitoring and Evaluation

32. Project M&E will be conducted on two levels. First, periodic monitoring through project reports for each calendar semester will be prepared and consolidated by TISCD in collaboration with MWTI, MNRE, LTA, and



MoF, and then provided to the Association by MoF after its review. These reports will track progress in terms of distribution of inputs, disbursement of funds, and achievement of targeted indicators as outlined in the Results Framework (Section VII). Second, project evaluation will measure outcomes achieved against baseline indicators (See Annex 3).

33. The key instrument for evaluating SCRTP are the indicators identified within the Results Framework that tracks several key resilience metrics, as well as indicators to capture the gender dimension and citizen engagement. MoF, LTA, MWTI and MNRE will be responsible for M&E of the outcomes of the respective project components to which they serve as the IA, against agreed indicators as presented in the Results Framework and Monitoring section, including the provision of timely monitoring reports with operational data. MoF will be responsible for the overall coordination of activities and review consolidated reports from all IAs prepared by TISCD, for submission to the WB. Through on-going experience with ERAP and CRWCR, MoF and LTA have demonstrated the capacity to meet the M&E requirements for this Project.

C. Sustainability

34. SCRTP will support the road sector through strengthening resilience to climate change and bolstering the Government's institutional capacity. This will help ensure that the road network is performing well now and into the future, which is vital for economic and social well-being and is one of the most important considerations for improving sustainability. The Government is developing a systematic approach to addressing resilience and climate change through an overarching adaptation strategy for the Samoa road network. This includes actions to incorporate the recommendations of the VA and CRRS into future investments and revising standards for construction to reflect measures to strengthen climate resilience, as well as updating regulatory arrangements for enforcing axle-load limits.
35. Maintenance is a concern for the whole road network in Samoa and is critical for sustainability. SCRTP will support improved asset management and maintenance regimes through the updating of the SAMS. This will be fed into broader work already underway to develop a Government asset management system. Maintenance informed by an asset management planning system will contribute to enhancing the longevity of the road network as well as helping to effectively cope with increasing climate risks through a preemptive management approach. In addition, preventative work, especially with regards to slope stability, will systematically help to manage unstable slopes and help prevent slope failure following heavy rainfall.
36. The new implementation arrangements for SCRTP are aligned with the Government's sector-wide approach that supports the mainstreaming of development projects through the TISCD. This will help to strengthen coordination, minimize the duplication of resources and improve the utilization of financial and human resources. The centralized approach will help to build sustainability in the way that oversight is provided for development projects and will help to enhance capacity within the Ministries. The objective is that this will ultimately lead to institutional sustainability to manage donor-financed programs.

D. Role of Partners

37. There is on-going dialogue and coordination between the WB and other development partners to collectively deliver technical assistance to the GoS. For instance, as part of the preparatory work for the proposed US\$25



million Asian Development Bank (ADB) financed road project, technical assistance has been mobilized to address the cadastral survey issues that created bottlenecks for the WCR and Cross-Island Road designs under CRWCR and ERAP, through transforming the datum used for ground survey works. This preparatory work by ADB has been utilized on SCRTP, including recommendations to update surveying systems such as SOLA.

38. Furthermore, there is the potential for all IAs to build capacity through interactions with other development partners as part of the new arrangements. It is envisaged that the CTSSU will eventually provide a strategic oversight role for all donor projects.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

39. **Overall risk rating – Substantial.** The risk ratings for the Project have been identified using the Systematic Operations Risk Rating Tool (SORT). The main concerns involve: (i) institutional capacity for project implementation; (ii) fiduciary risks; and (iii) safeguards risks stemming from capacity and project management issues. As experienced under previous projects, the institutional capacity for implementation is low. There is also additional complexity to implementation with having four IAs, which contributes to the “substantial” risk rating for institutional capacity for implementation and sustainability. Consultations have been carried out with MoF, LTA, MWTI and MNRE to help ensure coordination of respective roles during implementation. It is envisaged that the new arrangements under the CTSSU and TISCD will mitigate the risk by building capacity across donor projects and promoting sustainability. Fiduciary risk is assessed as “substantial” as FM and procurement capacity is currently low, and there are concerns with contract management, the tracking of expenditures, record keeping, procedural compliance and ensuring value for money. As part of the new implementation arrangements, specialists within the TISCD and the CTSSU will provide additional support to the IAs where needed. Environmental and social risk is also assessed as “substantial”. However, improved project management and oversight built into the implementation arrangements are to reduce the risks of any adverse social and environmental impacts, and it is unlikely that beneficiaries or other parties will be negatively affected because of the Project. There is currently thin institutional capacity to manage environmental and social safeguard issues (and the prerequisite activities such as design and community consultation/documentation etc.); however, this has been mitigated through the addition of a Safeguards Specialist within the LTA and the additional support to be provided through the TISCD and the CTSSU who will be able to influence the process and design so that it competently addresses land related issues. This proactive management and design integration should help reduce the risks of implementation delays. In addition, the risk that geophysical hazards and climate change damages infrastructure assets that have been constructed under the Project or delays the construction of roads or bridges under the Project is assessed as “substantial” and is accounted for as “other risk” in the SORT. SCRTP will mitigate this risk through improved road design standards, maintenance and sector planning tools.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

40. **Economic analysis.** SCRTP will have a range of quantifiable economic, financial and social benefits including: (i) reduced road user costs due to improved road condition; (ii) reduced road user travelling time; (iii) reduced network disruption due to improved resilience; and, (iv) reduced road trauma due to safer infrastructure. In addition, the infrastructure improvements will also have positive impacts on access to economic and social services, particularly during severe weather, that are difficult to quantify.
41. A cost-benefit analysis was undertaken on an indicative sample of works that are expected to be carried out under SCRTP including: (i) rehabilitation of the West Coast Road (Upolu) from Malua to Faleolo; (ii) landslide/rockfall protection works on the East Coast Road (Upolu); (iii) upgrades to Lano Ford (Savai'i); and, (iv) replacement of Afega Bridge (Upolu). Analysis is based on informed assumptions regarding operating cost and time savings due to improved road conditions, as well as reduced disruptions due to improved climate resilience. The analysis utilizes a “vulnerability parameter” that anticipates an increase in disruptions as the effects of climate change increase over time.
42. The estimated net present values (NPV) and economic internal rates of return (EIRR) for these four activities were calculated using a standard methodology and country-specific data on value of time savings, vehicle operating costs, and traffic flow. Analysis results indicate that the West Coast Road works will yield an EIRR of 25.8 percent and a NPV of US\$8.66 million and Afega Bridge will yield an EIRR of 74.4 percent and a NPV of US\$5.76 million. In comparison, East Coast Road and Lano Ford have modest EIRRs (2.9 percent and 3.2 percent respectively) and slightly negative NPVs (-US\$1.06 and -US\$0.38 respectively) as they are located further away from the capital in less populated and less trafficked parts of Samoa. The economic and financial figures for the four works are included in the table below both with and without GHG emissions analysis.²⁰ The NPVs were calculated using a discount rate of 8 percent.

Table 3. Estimated net present values (NPV) and economic internal rates of return (EIRR)

Activity	COST (US\$ million)	NPV (US\$ million)	NPV (US\$ million) with GHG emissions analysis	EIRR (%)	EIRR (%) with GHG emissions analysis
West Coast Road	12.5	8.66	8.91	25.8	26.3
East Coast Road	6.00	-1.06	-1.03	2.9	3.0
Afega Bridge	1.50	5.76	5.76	74.4	74.4
Lano Ford	2.50	-0.38	-0.38	3.2	3.2
Total	22.50	12.98	13.26	22.4	22.6

43. To check the robustness of the assessment, a sensitivity analysis was conducted which considered four

²⁰ GHG emissions do not have a material impact on the financial and economic analysis of small scale works of Afega Bridge and Lano Ford.



scenarios: (1) increased cost of investments by 20 percent; (2) decreased benefits of investments by 20 percent, (3) a combined scenario of increased costs and reduced benefits, and (4) a higher discount rate of 10 percent. In all scenarios, the combined investments remain robust (Table 4).

Table 4. Sensitivity Analysis

Sensitivity Analysis	NPV (US\$ million)	EIRR (%)
Baseline (all modelled activities)	12.98	22.4
Baseline (all modelled activities) w/GHG emissions analysis	13.26	22.6
Scenario 1: All costs increase by 20%	9.51	17.2
Scenario 2: All benefits decrease by 20%	6.91	16.1
Scenario 3: All costs increase by 20% and all benefits decrease by 20%	3.45	11.5
Scenario 4: Estimated WCR accident reduction is 20% less	10.18	22.4

B. Technical

44. The technical design of the Project has been derived from sector strategies and the VA and CRRS, which identified a range of priority activities in the short to medium-term. The technical solutions developed will involve works and materials, software, and hardware based on tried and tested technology which will be adapted to suit local Samoan conditions. The design criteria provided by the VA and CRRS will be a particularly useful input.
45. Under Component 1: Sectoral and Spatial Planning Tools, technical work by specialist consultants and Government counterparts will focus on developing information technology systems, which will serve as analytical tools to enable policymakers to make informed decisions focused on the road sector based on the most accurate and up-to-date information. For example, updates to hardware, software and operating procedures will be undertaken for the SAMS, the Government’s land transport asset management system. Improvements will enable the system to be utilized for budgeting, planning and prioritizing LTA’s annual capital works and maintenance programs, as well as monitoring and evaluating the effectiveness of the programs. In addition, Component 1 will support the establishment of a road safety database which will combine the existing siloed data from Police, Samoa Fire Emergency Services Authority (SFESA), Health authorities and the LTA into a single readily accessible platform. The system will likely make use of an open-source database software called ‘Data for Road Incident Visualization, Evaluation, and Reporting’ (DRIVER) developed by the WB for the Philippines, and now rolled out to 10 other countries. The intention is to link the database to SAMS, so that road-safety improvements can be prioritized as required. A final example of the Component 1 technical activities are the improvements proposed to SOLA to address survey challenges for climate resilient road works experienced under ERAP and CRWCR. Access to SOLA by licensed surveyors will be improved by providing dedicated computers, while reference points will be added into the SOLA map for all types of survey plans (cadastral and geodetic).
46. In addition to these analytical tools under Component 1, the Project will make significant investments in a



range of climate resilient infrastructure under Component 2. Design of civil works will conform to international design codes of practice such as Austroads for geometric road design. Specifications for all works and materials will also be in accordance with international standards, making use of innovative materials and approaches if they will enhance climate resilience. Activities will involve the investigation, design and construction of priority road assets to improve their resilience to climate-related hazards and/or events. These activities will include the rehabilitation of the Western Section of the WCR from Faleolo to Malua for which a high-quality detailed design has been prepared by an international consulting firm under the CRWCR Project. With design decisions made, for example the road elevation level required to enhance resilience to coastal inundation, works procurement can commence as soon as the Project becomes effective. The road will be raised and the pavement strengthened to increase resilience to surface flooding, improved longitudinal and cross-drainage will reduce surface flooding that contributes to road deterioration, and improved coastal protection will be provided through new and raised (or replenished) seawalls.

47. Another key activity under Component 2 is the landslide and rockfall protection works on the East Coast Road. The key climate related hazard on this route is slope failure, with scoping identifying approximately 15 locations where there are steep, high cuttings close to the landward side of the road. Some of these areas are unstable resulting in frequent landslides and rockfalls that result in obstruction to drainage channels, partial or sometimes full closure of the road, and pose a danger to road users. To address this hazard will be a complex engineering task with specialist technical expertise in geotechnical design and construction required. Investigation and analysis will allow sites to be prioritized and works designed to meet the specific needs of each site.
48. A final example of technical considerations under Component 2 are the improvements to crossings across Samoa, particularly Afega Bridge and Lano Ford. Afega Bridge is the only bridge along the WCR, and crosses the Aleisa River. The existing bridge is a 15-meter-long single span reinforced concrete structure comprising an in-situ concrete deck on 15 precast concrete beams on concrete abutments with shallow foundations. A specific issue to be addressed with this bridge replacement is the inadequate freeboard which can be addressed by a new bridge at a higher level. Similarly, Lano Ford is located on the East Coast Road of Savai'i, and is very low lying. The crossing is generally dry but the river is subject to dramatic flash flooding, which caused a fatal accident in 2013 when a bus was washed off the ford. A design study will consider technical options for replacing the ford with a high-level bridge or multiple culverts, either at the current location or further inland.

C. Financial Management (FM)

49. The existing FM systems are assessed as adequate to meet the financial management requirements as stipulated in the Bank Directive: Investment Project Financing. The Project's overall FM risk is rated as "moderate" (see Annex 2 for details on FM).

D. Procurement

50. The IDA grant will finance the costs of investigative surveys and feasibility studies to inform investment decisions; design, supervision and constructions of roads, bridges and culverts as well as other measures to improve slope stability and safety at crossings; and individual consultant(s) and/or firms to provide technical



assistance, capacity building and to support project implementation. Procurement for SCRTP will be carried out in accordance with the WB Procurement Regulations for IPF Borrowers (Procurement Regulations), July 2016 (revised November 2017), as well as the provisions stipulated in the Financing Agreement.

51. A procurement risk assessment of the four IAs (MoF, LTA, MWTI, MNRE) has been carried out and the overall procurement risk rating is “substantial”. Key procurement risk areas include contract management and procedural compliance. The CTSSU will house an International Procurement Specialist, and the TISCD will also house dedicated procurement resourcing (Principal and Senior Officers) to support the IAs and to mitigate risks. A draft Procurement Plan has been prepared for the Preparation Advance covering the key Project preparatory activities. In addition, a Project Procurement Plan has been prepared and is detailed in the Project Procurement Strategy for Development (PPSD).
52. The use of the WB’s Systematic Tracking of Exchanges in Procurement (STEP) system will be mandatory for use under the SCRTP. The system is currently being used on a number of Projects in Samoa including ERAP and CRWCR and ongoing face-to-face training is being conducted in country on use of the system (see Annex 2 for details on Procurement).

E. Social (including Safeguards)

53. SCRTP will generate positive social impacts including improving access for all as well as improving safety. An assessment of the applicability of OP/BP 4.10 to the PICs was undertaken during the preparation of the Environmental and Social Safeguard Instruments for the Pacific Island Countries.²¹ Country-level social analysis undertaken as part of preparation of the WB Environmental and Social Safeguard Procedures and Instruments for Pacific Island Countries, determined that OP/BP 4.10 is not typically triggered in Samoa.²² However, a precautionary approach has been applied for SCRTP by employing culturally appropriate communication processes to ensure that traditional community structures are respected.
54. Although involuntary resettlement is not anticipated under the Project, OP/BP 4.12, has been triggered so as to capture the efforts made to minimize design and to document the process used to access the land, which is likely to be through a negotiated process. Acquisition of marginal strips of land, as well as the loss (or relocation) of secondary structures, is anticipated. The costs of land acquisition are included as client-counterpart funding. Preliminary review of expected project activity sites indicates that impacts expected are mainly the loss of secondary structures and trees and/or crops, but that relocation of housing is not considered likely. Temporary loss of land use for diversion roads associated with bridge construction is also expected. Impacts on livelihoods are expected to be minimal and temporary in nature.
55. Preparation and implementation of involuntary resettlement is guided by: (i) the Land Acquisition and Resettlement Framework (LARF), dated March 2015, which was prepared and disclosed under the CRWCR,

²¹ Environmental and Social Safeguard Instruments for the Pacific Island Countries. World Bank, 2015.

²² According to the Environmental and Social Safeguard Procedures and Instruments for Pacific Island Countries (PICs) developed by the WB’s East Asia and Pacific Regional Safeguard Secretariat (RSS), OP/BP 4.10 is not typically triggered in the generally homogeneous island nations of Federated States of Micronesia, Kiribati, Marshall Islands, Palau, Samoa, Tonga and Tuvalu. Depending on the specific project context, persons meeting the four defining characteristics of OP/BP 4.10 are likely to be found in Fiji, PNG, the Solomon Islands, Timor-Leste and may be found in Vanuatu.



and will be used for SCRTP activities on the West Coast Road; and, (ii) the SCRTP LARF, which is included as part of the SCRTP Environment and Social Management Framework (ESMF), and will be used for the rest of the SCRTP activities. Both LARFs are compliant with WB social safeguards policy requirements and have been prepared to guide due diligence and the preparation of involuntary resettlement safeguards instruments. The SCRTP LARF has been disclosed in country on March 26, 2018 and on the Bank's external website on March 20, 2018. Individual Abbreviated Resettlement Action Plans/Land Acquisition Resettlement Plans (ARAPs/LARPs) will be prepared pursuant to the LARFs (including community consultation) for project activities that have land acquisition impacts and will be disclosed publicly as well to affected persons in the project areas. A LARP is currently being prepared for activities on the West Coast Road under CRWCR and will be disclosed prior to works commencing.

56. Land acquisition is expected to continue to be an issue for the road sector; however, proactive cadastral survey and early finalization of designs will mitigate risk of delays. The work undertaken by ADB to address the survey issues encountered under previous projects will further help to reduce risks and minimize future bottlenecks. In addition, the environmental assessment and design for WCR have already been completed which constitutes a mitigating factor.
57. Public consultations were undertaken as part of the CRWCR for the WCR. As part of SCRTP, additional consultations on Upolu and Savai'i will be undertaken and the documented results used to help inform the Project design.
58. A GRM has been established within LTA that builds on previous experience and capacity developed under CRWCR and ERAP projects. The GRM provides avenues to address grievances related to environment, land acquisition, as well as actions of contractors and provides a mechanism to register and manage all grievances, relaying them to the appropriate party for resolution, and advising the complainant of the outcome. Information regarding the GRM and relevant contact points will be disclosed to the public to ensure accessibility. Statistics on grievance and complaint resolution will be published on the project website. Statistics published on the website reflect the proposed indicators in the 2014 Guidance Note on Results Framework and M&E including: (i) grievances registered related to delivery of project benefits that are addressed (%); and, (ii) grievances responded and/or resolved within the stipulated service standards for response times (%). In addition, the public display of this data also fulfills the indicator: (iii) Project-supported organization(s) publishing periodic reports on GRM and how issues were resolved, proposed in the guidance note. The indicator "grievances registered related to delivery of project benefits that are addressed" will be included within the Results Framework (refer to Section VII).

F. Environment (including Safeguards)

59. SCRTP is unlikely to cause any adverse environmental impacts and has been categorized as Category B under OP/BP 4.01 (Environmental Assessment). Potential impacts are expected to be site-specific and few, if any, will be irreversible. Required mitigation measures are expected to be largely standardized; however, they will need to respond to the potential environmental risks identified during the environmental assessment. Importantly, the receiving environment of the proposed investments is highly sensitive and includes coral reef communities that contain significant biodiversity and are important for livelihoods. Many of the project activities will be located close, or adjacent to the coast; hence, the prevention of pollution from



sedimentation and hydrocarbons will be critical.

60. SCRTP involves the rehabilitation of existing roads and crossings within the established public road easement. Typical construction related impacts from the civil construction works include erosion and sedimentation, increased dust and noise, traffic disruption and waste disposal. Depending on the scope and design of slope stabilization works along East Coast Road there may be a need for spoil disposal. Utilization of quarries for sourcing road construction material will be required and development consent will need to be obtained for any facility proposed to be exploited. While the complete avoidance of new land acquisition is ideal, it is highly likely that the infrastructure works eligible for funding under Component 2 will affect land outside the road reserve and may involve the permanent and or temporary acquisition of customary lands. The acquisition or land access process will be consistent with WB policy and country systems.
61. The safeguards instruments used to address potential environmental and social impacts for SCRTP activities include: (i) the ESMP that was prepared and disclosed for the West Coast Road under CRWCR; and, (ii) the SCRTP ESMF, disclosed on the Bank's external website on March 20, 2018. Further Environmental and Social Assessments (ESAs) and ESMPs will be prepared during implementation to address the environmental and social risks and potential impacts of project activities. These ESAs will be used to more clearly inform the project on how to address the induced GBV and VAC risks by the project, as well as opportunities to address the existing underlying GBV and VAC issues, and survivor support that may be required. Ultimately, the contractor's ESMP will be prepared and implemented reflecting these GBV and VAC findings.
62. **Climate resilience measures.** A screening of SCRTP for short and long-term climate change and disaster risks was undertaken using the WB Climate and Disaster Risk Screening Tool. The hazards identified that pose a risk to the physical components and service delivery of the Project include sea-level rise, storm surges, and landslides. A holistic view of improving resilience will help to ensure that sector-wide challenges are addressed. In understanding the vulnerability of assets and the development context, the Project will directly improve the climate resilience of the network through policy, long-term strategic planning, resilient infrastructure designs, and through the incorporation of emergency protocols (i.e., CERC).



G. Other Safeguard Policies

63. The safeguard policy Physical Cultural Resources OP/BP 4.11 has been triggered as a precautionary measure. Recent experience on other road projects in Samoa found that tombs and cemeteries or gravesites are often located near the road reserve and/or within the construction zone. There are also excavation works associated with crossings, slope stabilization, and possibly within easements for storm-water management that may uncover culturally important resources requiring the activation of Chance Finds Procedures (an Annex is included in the SCRTP ESMF).
64. The safeguard policy Natural Habitats OP/BP 4.04 has been triggered as a precautionary measure. Component 2 involves activities that require soil excavation and other earth-moving works with the potential to cause impacts on the immediately surrounding and downstream environments. Likewise, during construction, any resulting contamination, sedimentation, or spills for example, will potentially have adverse consequences for fragile coastal ecosystems, including lagoons, mangrove areas and reefs. Hence, the implementation of adequate mitigation measures during construction will be critical in protecting these ecological values.

H. World Bank Grievance Redress

65. Communities and individuals who believe that they are adversely affected by a World Bank 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 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, because of WB non-compliance 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 Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Samoa

Samoa Climate Resilient Transport Project

Project Development Objective(s)

Improve the climate resilience of Samoa’s road network and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
		2019	1	2	3	4	5	2024
Identified planning tools being used to improve climate resilience of roads								
Identified planning tools being used to improve climate resilience of roads (Number)		0.00	0.00	1.00	2.00	3.00	4.00	4.00
Identified climate resilient investments constructed and in use								
Identified climate resilient investments constructed and in use (Number)		0.00	0.00	1.00	2.00	4.00	5.00	5.00
Identified enabling environment solutions implemented								



Indicator Name	DLI	Baseline 2019	Intermediate Targets					End Target 2024
			1	2	3	4	5	
Identified enabling environment solutions implemented (Number)		0.00	0.00	1.00	2.00	4.00	5.00	5.00
Roads constructed or rehabilitated with climate resilience measures								
Roads constructed or rehabilitated with climate resilience measures (Kilometers)		0.00	0.00	4.50	9.50	15.60	15.60	15.60
Water crossings constructed or rehabilitated with climate resilience measures								
Water crossings constructed or rehabilitated with climate resilience measures (Number)		0.00	0.00	1.00	1.00	2.00	2.00	2.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline 2019	Intermediate Targets					End Target 2024
			1	2	3	4	5	
Component 1: Sectoral and Spatial Planning Tools								
SAMS informs maintenance and capital works plan (Text)		SAMS database not updated	SAMS database not updated	SAMS software/hardware purchased	SAMS updated	SAMS updated and used to inform maintenance program	SAMS updated and used to inform maintenance program	SAMS updated and used to inform maintenance program
VA updated and used in sector planning (Text)		VA not updated	VA not updated	VA not updated	VA not updated	VA updated	VA updated and used to inform sector	VA updated and used to inform sector



Indicator Name	DLI	Baseline 2019	Intermediate Targets					End Target 2024
			1	2	3	4	5	
							planning	planning
Crash database established and used to inform designs (Text)		No crash database	No crash database	No crash database	Crash database established	Crash database established	Crash database established and linked with SAMS	Crash database established and linked with SAMS
SOLA data publically available (Yes/No)		No	No	No	Yes	Yes	Yes	Yes
Component 2: Climate Resilient Infrastructure								
Roads rehabilitated (CRI, Kilometers)		0.00	0.00	0.50	3.50	7.50	11.20	11.20
New or upgraded drainage outfall channels installed (Number)		0.00	0.00	2.00	4.00	6.00	10.00	10.00
Water crossings installed with edge markers and warning signs (Number)		0.00	0.00	1.00	1.00	2.00	2.00	2.00
Water crossings rehabilitated or replaced (Number)		0.00	0.00	1.00	1.00	2.00	2.00	2.00
Length of road with landslip and rock fall protection (Kilometers)		0.00	0.00	0.00	1.00	2.00	4.40	4.40
Length of coastal protection revetment constructed and/or replenished (Meter(m))		0.00	0.00	0.00	1,000.00	2,000.00	3,480.00	3,480.00
Length of new vegetated coastal scour protection (Meter(m))		0.00	0.00	0.00	1,000.00	2,000.00	3,000.00	3,000.00
Component 3: Strengthening the Enabling Environment								



Indicator Name	DLI	Baseline 2019	Intermediate Targets					End Target 2024
			1	2	3	4	5	
Access audits conducted to inform project designs (Number)		0.00	0.00	1.00	2.00	3.00	3.00	3.00
Control survey performed at Alafa'alava Road (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes
Road safety audits conducted (Number)		0.00	0.00	0.00	1.00	2.00	3.00	3.00
Legislative review conducted (Yes/No)		No	No	No	Yes	Yes	Yes	Yes
Instances when activities include gender responsive design features (Number)		0.00	0.00	0.00	1.00	2.00	3.00	3.00
Gap between percentage of men and women obtaining driver licenses reduced (Percentage)		0.00	0.00	0.00	0.50	1.00	1.50	2.00
Instances when GBV codes of conduct are implemented on project activities (Number)		0.00	0.00	0.00	1.00	2.00	3.00	3.00
Number of line ministry staff and consultants who have achieved improvement in skills/knowledge as a result of capacity building delivered by the CTSSU compared to a pre-training baseline (Number)		0.00	10.00	20.00	40.00	60.00	80.00	80.00
Percentage of transactions		0.00	90.00	90.00	90.00	90.00	90.00	90.00



Indicator Name	DLI	Baseline 2019	Intermediate Targets					End Target 2024
			1	2	3	4	5	
completed by CTSSU specialists within service standards outlined in CTSSU Standard Operating Procedures/Service Agreement (Percentage)								
Improved perception of quality of service: Percentage of line ministry project managers/coordinators who rate quality of service/advice received from CTSSU as 'satisfactory' or above (Percentage)		0.00	80.00	80.00	80.00	80.00	80.00	80.00
Citizen Engagement								
Grievances registered related to delivery of project benefits that are addressed (Percentage)		0.00	0.00	100.00	100.00	100.00	100.00	100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Identified planning tools being used to improve climate resilience of roads		Each calendar	Project progress	Project progress reports	LTA



		semester	reports		
Identified climate resilient investments constructed and in use		Each calendar semester	Project progress reports	Project progress reports	LTA
Identified enabling environment solutions implemented		Each calendar semester	Project progress reports	Project progress reports	MWTI
Roads constructed or rehabilitated with climate resilience measures		Each calendar semester	Project progress reports	Project progress reports	LTA
Water crossings constructed or rehabilitated with climate resilience measures		Each calendar semester	Project progress reports	Project progress reports	LTA

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
SAMS informs maintenance and capital works plan		Each calendar semester	Project progress reports	Project progress reports	LTA
VA updated and used in sector planning		Each calendar semester	Project progress reports	Project progress reports	LTA



Crash database established and used to inform designs		Each calendar semester	Project progress reports	Project progress reports	MWTI
SOLA data publically available		Each calendar semester	Project progress reports	Project progress reports	MNRE
Roads rehabilitated		Each calendar semester	Project progress reports	Project progress reports	LTA
New or upgraded drainage outfall channels installed		Each calendar semester	Project progress reports	Project progress reports	LTA
Water crossings installed with edge markers and warning signs		Each calendar semester	Project progress reports	Project progress reports	LTA
Water crossings rehabilitated or replaced		Each calendar semester	Project progress reports	Project progress reports	LTA
Length of road with landslip and rock fall protection		Each calendar semester	Project progress reports	Project progress reports	LTA



Length of coastal protection revetment constructed and/or replenished		Each calendar semester	Project progress reports	Project progress reports	LTA
Length of new vegetated coastal scour protection		Each calendar semester	Project progress reports	Project progress reports	MNRE
Access audits conducted to inform project designs		Each calendar semester	Project progress reports	Project progress reports	LTA
Control survey performed at Alafa'alava Road		Each calendar semester	Project progress reports	Project progress reports	MNRE
Road safety audits conducted		Each calendar semester	Project progress reports	Project progress reports	LTA
Legislative review conducted		Each calendar semester	Project progress reports	Project progress reports	MWTI
Instances when activities include gender responsive design features		Each calendar semester	Project progress reports	Project progress reports	LTA
Gap between percentage of men and women obtaining driver licenses reduced		Each calendar semester	Project progress reports and	Project progress reports and LTA database	LTA



			LTA database		
Instances when GBV codes of conduct are implemented on project activities		Each calendar semester	Project progress reports	Project progress reports	LTA
Number of line ministry staff and consultants who have achieved improvement in skills/knowledge as a result of capacity building delivered by the CTSSU compared to a pre-training baseline		Each calendar semester	Project progress reports	Project progress reports	MoF
Percentage of transactions completed by CTSSU specialists within service standards outlined in CTSSU Standard Operating Procedures/Service Agreement		Each calendar semester	Project progress reports	Project progress reports	MoF
Improved perception of quality of service: Percentage of line ministry project managers/coordinators who rate quality of service/advice received from CTSSU as 'satisfactory' or above		Project progress report each calendar semester, data sourced from perception surveys conducted quarterly	Quarterly perception surveys, recorded in each calendar semester project progress reports	Quarterly perception surveys, recorded in each calendar semester project progress reports	MoF
Grievances registered related to delivery of project benefits that are addressed		Continuous (GCLS);	GCLS online tool and	GCLS online tool and project progress reports	LTA



		each calendar semester (Project progress reports);	project progress reports		
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ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY : Samoa

Samoa Climate Resilient Transport Project

1. The SDR25.50 million (US\$35.75 million equivalent) SCRTP will help support the GoS to improve the climate resilience of the road network and in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency. The support envisaged through the financing takes into consideration the identified sectoral strategies to help improve the climate resilience of the road network. The Project will also support key assistance required to contribute towards effectively managing climate resilient road sector assets. As part of SCRTP the following project components are proposed, in line with the PCRTP SOP (refer to Annex 4 for details on PCRTP SOP).
2. **Component 1: Sectoral and Spatial Planning Tools (US\$0.56 million).** This component involves technical assistance to directly support Samoa to bring about transformative change in the way that climate change is addressed in the transport sector, and allows for the financing of updates to analytical tools to enable policymakers to make informed decisions based on the most accurate and up-to-date information available. Proposed Sub-components include (refer to Annex 1, Table 1.1 for responsible IA):
 - (a) **Updating and upgrading the existing Samoa Road Asset Management System (SAMS).** SAMS is a computerized land transport asset management system housed and managed within LTA that comprises a stand-alone, PC-based GIS-linked database for maintaining road and bridge inventories, with no condition, traffic or cost data being regularly entered and no analysis possible for the prioritization of investments. Activities will be undertaken to upgrade the hardware, software and ancillary tools that comprise the SAMS system, and provide training to the LTA to improve the management of the condition and performance of assets in the network on an ongoing basis and ensure the system does not become outdated. The intended outcome of the activities will be to enable the system to significantly contribute to the budgeting, planning and prioritizing of LTA's annual capital works and maintenance programs, as well as monitoring and evaluating the effectiveness of the programs. In addition, the system will be designed in a scalable way to enable it to be integrated with other sector asset management systems that may be developed.
 - (b) **Updates to the VA and CRRS.** The recommendations of the VA and CRRS completed under CRWCR are being implemented where feasible on roads and bridges currently being designed, and are also being used to inform future investments. At a higher level, these reports are informing road network planning in Samoa. However, the VA and CRRS are dynamic tools that need to be updated from time to time to reflect relative changes in network asset vulnerability and hazard exposure and therefore funds will be allocated to update these reports.
 - (c) **Establishment of a crash database.** The impacts of climate change and severe weather events can and have had negative outcomes for road safety in Samoa. The establishment of a crash database at LTA will allow for the recording and analysis of all road accident data. An individual consultant will be employed to coordinate the establishment and operation of a database, most likely using the DRIVER software developed by the WB for the Philippines, and now rolled out to 10 other countries, or similar



open-source software. The intention is to link the database to SAMS, so that road-related improvements can be prioritize MWTI, Health, SFESA, and the Police.

- (d) **Solutions for the Samoa Open Land Administration (SOLA).** Following implementation challenges with road surveying experienced under ERAP and CRWCR, two improvements to the SOLA system operated by MNRE have been recommended in a recent report.²³ The first is to improve access to SOLA by licensed surveyors, such as by providing dedicated computers at the MNRE office that allow surveyors and the public to use SOLA Samoa to search for relevant survey and title information directly. The second recommendation is to add reference points into the SOLA map for all types of survey plans (cadastral and geodetic). There are about 10,000 survey plans in Samoa and SOLA currently has reference points for approximately 7,900 cadastral plans, and the reference points for the remaining survey plans should be added into SOLA. The Project could provide the expertise, goods and training required to meet these recommendations.

- 3. **Component 2: Climate Resilient Infrastructure Solutions (US\$27.70 million).** This component involves feasibility studies, design and construction of identified priority road assets to improve their resilience to climate-related hazards and/or events using the recommendations of the VA and CRRS. The following Sub-components are proposed (refer to Annex 1, Table 1.1 for responsible IA):

- (a) **Western Section of the West Coast Road (WCR) (US\$14.39 million).** The WCR is the principal road linking the international airport to the capital and has critical economic and social importance. Under CRWCR, the eastern section of road between Saina and Malua will be rehabilitated to improve the climate resilience – a key objective for the GoS under the Strategic Program for Climate Resilience (SPCR). Financing will be provided for the western section of the WCR between Malua and Faleolo, and will also include the cost of supervision of the works. The road will be raised and the pavement strengthened to increase its climate resilience to surface flooding and to avoid deterioration associated with rising water tables, through improving longitudinal and cross-drainage to avoid surface flooding that contributes to road deterioration, and improving protection through new and raised (or replenished) existing seawalls, and vegetative coastal scour protection to reduce deterioration during periods of storm surge events and king tides.
- (b) **East Coast Road (US\$7.53 million).** The East Coast Road links Apia with the east coast of Upolu. Approximately 4 kilometers from Apia, the topography becomes more rugged, with a coastal plain that is very narrow in places. The road runs close to the coast for approximately 16 kilometers before turning inland to the south. In approximately 15 locations along this coastal section the road has very steep, high cuttings close to the landward side of the road with a combined length of about 5 kilometers. Some of these areas are clearly unstable and cause frequent landslides and rockfalls that result in obstruction to drainage channels, partial or sometimes full closure of the road, and pose a danger to road users. This hazard was highlighted as a high priority for rectification within the VA. Financing will be provided for the investigation, assessment, design and construction of protection and slope stabilization works to reduce the landslip and rockfall hazards, and reduce the related risks to the road assets and road users. An initial inspection indicates that there is a wide variety of slope, geotechnical, vegetation and moisture conditions in the cuttings, from vertical solid rock formations

²³ Report for Mission Sam (51268-001): Supplementary Information. Asian Development Bank, 2017.



to highly mobile soils supporting trees and grass, and it is expected that a range of interventions will be required to suit the different conditions. Finance will also be provided for some critical longitudinal and cross drainage improvements to be identified as part of the above assessment.

- (c) **Improvements to Crossings (US\$5.61 million).** The VA and Bridge Condition Assessments funded by the Government of Australia's Department of Foreign Affairs and Trade (DFAT) have highlighted the vulnerability of several bridges, culverts and fords on both Upolu and Savai'i due to aging, poor condition and climate change impacts.²⁴ ERAP is funding improvements to a total of six major and minor crossings, but there is an urgent need to continue the program of replacing crossings that are no longer fit-for-purpose. This sub-component will finance the improvement and/or replacement of crossings on Upolu and Savai'i, which will include at least two crossings as follows:
- (i) **Afega Bridge, Upolu.** Afega Bridge is the only bridge along the WCR, and crosses the Aleisa River. The existing bridge is a 15-meter-long single-span reinforced concrete structure comprising an in-situ concrete deck on 15 precast concrete beams on concrete abutments with shallow foundations. Several reports have commented on the deteriorating bridge condition and its low level, and have variously recommended repairs, replacement and/or raising the deck level. The CRWCR Design Completion Report specifically noted that the freeboard is inadequate, and that the bridge should be completely replaced with a new structure.²⁵ This work will complement both CRWCR and investments under SCRTP, which will be improving and raising the road sections on both sides of the bridge. Financing will be provided for the design, construction works and supervision of a new bridge.
 - (ii) **Lano Ford, Savai'i.** Lano Ford is located on the East Coast Road of Savai'i, very close to the shoreline, and is very low lying. The crossing is generally dry but the river is subject to dramatic flash flooding, which caused a fatal accident in 2013 when a bus was washed off the ford. The VA recommends the replacement of the ford with a bridge as a high priority, primarily for safety reasons but also because the crossing and its approaches are highly vulnerable to hazards resulting from sea-level rise. Financing will be provided for a feasibility study of the options for replacing the ford with a high-level bridge or multiple culverts, either at the current location or further inland. The design, construction works and supervision of the recommended improvements will also be financed.
- (d) **Alafa'alava Road feasibility study (US\$0.17 million).** Alafa'alava Road runs approximately East to West for about 20 kilometers from the junction with Papaseea road in South West Apia to Fasito'otai on the western Cross-Island Road. The existing road has a 2-lane, bitumen surface with a varying but nominal width of about 6 meters. The road does not meet design standards and its horizontal and vertical alignments are highly variable with sharp horizontal and vertical curves in several places, mainly in the central section. At present, the road provides good local access between the center of Apia, the south-western suburbs and the farming areas around Aleisa, and a route to south-west Upolu, but more strategically it also provides an inland, less trafficked, alternative route to the WCR,

²⁴ Bridge Conditions Assessment and Maintenance Design (Samoa), Completion Report. Department of Foreign Affairs and Trade, 2016.

²⁵ Enhancing the Climate Resilience of the West Coast Road, Design Completion Report. Government of Samoa, 2016.



by providing all-weather road access between Apia and its port in the east, and Faleolo airport and Mulifanua ferry wharf in the west. The Apia / Faleolo / Mulifanua route is Samoa's primary economic corridor and carries a high volume of commuter, public transport and freight traffic daily. The GoS has recognized the vulnerability of the existing WCR to climate change, with the possibility of closure due to flooding and damage from rising king tides, storm surges and flooding from intense rainfall. The current improvements to the WCR between Saina and Faleolo are intended to provide enhanced short to medium-term (20-years) resilience to climate-related hazards. In the long-term, however, the road's proximity to the coast and long low-lying sections are likely to leave it increasingly exposed to extreme climatic events. A study funded under the Second Infrastructure Asset Management Project (SIAM-2) investigated a new alignment to provide an alternative route 1-2 kilometers inland, but this option was not implemented due to potential financial, technical and land-related problems.²⁶ The GoS now wishes to investigate the technical, financial and economic feasibility of upgrading the existing Alafa'alava route, including the improvement of existing link roads at the western and eastern ends, to provide a future alternative route for all traffic between Vaitele and Fasito'otai (junction of WCR and Western Cross Island Road) – a total distance of about 30 kilometers.

4. **Component 3: Strengthening the Enabling Environment (US\$7.49 million).** This component will help to strengthen the capacity of the GoS to provide oversight and support to all development projects in Samoa. Technical and operational assistance will be provided to LTA's PMD on project management and implementation. Funding will also be provided to support institutional and regulatory reforms for road sector asset management and maintenance, including measures to strengthen local capacity and to increase the sustainability of climate resilient road sector investments. In addition, this component will help to strengthen coordination among relevant institutions, will look at ways in which road sector management can be improved, and will address any emerging priority issues that can help support the Government in addressing climate change risks. Financing will be provided for the following Sub-components (refer to Annex 1, Table 1.1 for responsible IA):

- (a) **LTA Engineering Technical Assistance.** LTA has suffered from high turnover of professional engineering staff. This Sub-component will finance a full-time, International Senior Engineer (Consultant) to continue to provide this essential support. The roles and responsibilities of the Engineer will not only relate to project management functions but will also include a structured staff training program to build technical capacity within LTA.
- (b) **Beneficiary survey and gender-informed driver licensing pilot.** Baseline and follow-up surveys will be undertaken to assess the impact of the major climate resilient works programs to be implemented under the Project at targeted communities along the East Coast Road and crossing sites. One way to improve access to roads comes from driver licensing. However, among private license holders, roughly 73 percent are male with only 27 percent female; and among commercial license holders, roughly 98 percent are male and only 2 percent are female.²⁷ Such a gender gap can have economic and social implications associated with access to education and employment opportunities. For example, women who live outside city centers have limited transport options, and the lack of a license may reduce access to education and employment opportunities. In

²⁶ New West Inland Route – Stage 2: Preliminary Design & Cost Estimate – Main Report, BECA Sept 2010.

²⁷ Land Transport Authority, Samoa.



addition, women that do not hold a commercial driver's license may also be excluded from consideration for certain jobs under certain scenarios (e.g., the trucking industry and the operation of commercial vehicles such as busses or taxis).

It is important to note that there are still substantial benefits for an individual to hold a license even if he or she does not regularly drive or own their own vehicle. For example, a driver's license in many countries is often the most prevalent form of national identification and a useful tool for securing access to credit and applying for a job.

In addition to women, another possible underserved group are people with disabilities. The aim of the licensing segment of the beneficiary survey is to explore how licenses for women and accessibility to mobility for disabled individuals would have an impact on the following: (i) opportunity and economy through evaluating the impact of additional opportunities that would be generated by providing individuals access to other sources of income; (ii) social outcomes through attempting to understand the impacts licensing would have on empowerment, education and health; and, (iii) community resilience through evaluating the impact on households to emergency events in the home (sudden illness) or communities (due to disasters).

Several actions are proposed as part of the licensing pilot including: (i) a driver's education/safety course and outreach program on licensing will be organized for women; (ii) for the first round of participants, the fee of the driver license will be waived by LTA for women who are seeking to become first time license holders and who have completed the education/safety course; and, (iii) training will be provided to the LTA Licensing Division to upskill staff engaged in the pilot program.

- (c) **Axle-load limit enforcement.** A study is currently underway as part of ERAP to review and update vehicle loading legislation and regulation, and design standards for roads and bridges in Samoa. It is expected that the study will recommend measures that will facilitate improved enforcement of axle-load limits by LTA. The procurement of goods and staff training in support of the study recommendations will be included in this component.
- (d) **Transport and Infrastructure Sector Coordination Division (TISCDD).** At the sector level, GoS is establishing sector coordination divisions within key ministries. For SCRTTP, the GoS will establish the TISCDD within MWTI. It is expected that SCRTTP will initially fund five posts – the ACEO and four Principal Officers within the TISCDD (the first two years), during which time the individuals will be employed under contract to GoS through Public Service Commission employment arrangements. The funding for these positions will then transition to Government budget.
- (e) **Land Transport sub-sector legislative review and revenue generation opportunities for the sub-sector.** This component will fund consulting services to undertake a legislative review and investigate the options available to the sub-sector for improving sources of revenue. For example, LTA may be able to increase revenue from driver licensing, vehicle registration and fuel levies. Furthermore, under ERAP, a review of vehicle loading legislation and regulation and design standards for roads and bridges was undertaken. Based on the outcomes of the report, the *Traffic Ordinance*, *Road Regulations* and *Road Rule* legislation could be revised to bring them in line with



the current specifications.

- (f) **Road safety improvements.** A program for improving road safety has been recommended through a recent study undertaken by the Pacific Region Infrastructure Facility (PRIF).²⁸ Such a program may be developed under SCRTP to include a road safety educational program and to develop a guided phased program to improve road signage and line marking throughout the national road network.
- (g) **Occupational Health and Safety.** A current study funded by DFAT for MCIL is expected to highlight areas where OHS measures are not being met or enforced by LTA for its own staff and contractors working on roads construction and maintenance operations. SCRTP will provide consulting services to train sector agency staff (LTA, MWTI, MNRE) and contractors in meeting all aspects of the legal and basic personal OHS needs.
- (h) **Emerging priority issues.** Funding will be made available for emerging TA priorities that strengthen the Government's ability to manage a climate resilient road network. For example, a need for TA may emerge following the technical studies on revenue generation - Component 3(c)The scope of such emerging priority TA is contingent upon the results of the studies and other critical issues that arise impacting the Government's ability to manage a climate resilient road network.
- (i) **Central Technical Services Support Unit (CTSSU).** To avoid duplication of discrete and individual project management units and technical support experienced under previous projects, the GoS is establishing a technical support unit within the MoF that will oversee and provide hands-on support services in the coordination, preparation and implementation of all development projects, including all IDA18 financed projects. The CTSSU will report to the Chief Executive Officer, Ministry of Finance, through the ACEO of the Aid Coordination and Debt Management Division, and will comprise specialists in procurement, financial management, safeguards and monitoring & evaluation. These positions are likely to be long-term (international) consultants. The CTSSU will provide high-level oversight and hands-on support to MoF as the EA, and project IAs working on development projects in Samoa through close coordination with sector coordination divisions. The CTSSU will provide capacity building and development for relevant staff of the EA, IAs and sector coordination divisions. Sector coordination divisions and IAs will draw upon the CTSSU for procurement, financial management, safeguards and monitoring and evaluation advice, expertise and hands-on support. Each sector coordination division will also retain additional capacity in each of these functional areas as deemed necessary for the size and scope of the projects for which they are responsible. Additional sector-specific and project-specific capacity will be financed separately from SCRTP as necessary. MoF will develop detailed standard operating procedures within six months of the effective date of the project, including service standards, for operation of the CTSSU and other relevant divisions/units recently established, and will appoint a Principal Officer to ensure the work of the CTSSU is coordinated. MoF will be responsible for performance management of the consultants of the CTSSU. SCRTP will

²⁸ Samoa Road Safety (Pathway) Assessment: A high level assessment to guide future investments in road safety Consultant's Road Safety Assessment Report. Pacific Region Infrastructure Facility (PRIF), 2017.



support the staffing and operating costs of the CTSSU for the full implementation period of the Project – in this case five years. Once SCRTP closes the CTSSU may be transferred to and embedded in another IDA-financed project.

- (j) **Alafa'alava Road control survey.** The recent ADB funded study into the cadastral survey problems experienced under ERAP and CRWCR recommended that control surveys be carried out along main roads once the local 'Lemuta' system is transformed into a GPS-based geodetic system (to be financed under Component 1d – Solutions for SOLA). This activity will finance technical assistance for a survey along the Alafa'alava Road, as an input into the Alafa'alava Road feasibility study (Sub-component 2(d)).

5. **Component 4: Contingency Emergency Response (US\$0.00 million).** This component is designed to provide swift response in the event of an Eligible Crisis or Emergency²⁹ through a portion of the undisbursed project envelope to address immediate post-crisis and emergency financing needs (refer to Annex 1, Table 1.1 for responsible IA). The CERC may be used following natural disasters or other crises and emergencies, allowing funds to be reallocated from other components of the Project. In the event of an emergency event, it is not anticipated that a reallocation of project funds will cause serious disruption to project implementation. The GoS have had experience in prioritizing investments following disaster events, as seen under ERAP following TCE in 2012. Due consideration will be given to the level and nature of outstanding contractual commitments. A CERC Annex (see Annex 5), the Legal Agreements and a CERC Operations Manual (OM) include the provisions for activating and implementing the CERC.
6. The estimated costs of each Component and Sub-component are summarized in the table below, including a PA of about US\$3 million for eligible expenses.

²⁹ Defined as “an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact associated with natural or man-made crises or disasters”, Paragraph 12, Bank Policy: Investment Project Financing.



Table 1.1. Detailed Project Financing Breakdown

Component and Sub-components	Component cost ³⁰ (US\$ million)	IDA contribution (US\$ million)	Implementing Agency
1. Sectoral and Spatial Planning Tools	0.56	0.56	
(a) Updating and upgrading SAMS	0.28		LTA
(b) Updating VA / CRRS	0.15		LTA
(c) Establishment of a crash database	0.11		MWTI
(d) Solutions for the Samoa Open Land Administration (SOLA)	0.02		MNRE
2. Climate Resilient Infrastructure Solutions	27.70	27.70	
(a) Western Section of the West Coast Road (incl. supervision)	14.39		LTA
(b) East Coast Road landslip/rockfall (incl. design & supervision)	7.53		LTA
(c) Improvements to crossings (incl. design & supervision)	5.61		LTA
(d) Alafa'alava Road feasibility study	0.17		LTA
3. Strengthening the Enabling Environment	7.49	7.49	
(a) LTA Project Engineer	1.70		LTA
(b) Beneficiary survey and gender-informed driver licensing pilot	0.25		LTA
(c) Axle load enforcement	0.28		LTA
(d) TISCD	0.21		MWTI
(e) Legislative review & revenue generation opportunities	0.17		MWTI
(f) Road safety improvements	0.12		MWTI
(g) OHS training	0.01		MWTI
(h) Emerging priority issues	0.43		MWTI
(i) CTSSU	4.26		MoF
(j) Alafa'alava Road control survey	0.06		MNRE
4. Contingency Emergency Response	0.00	0.00	
(a) CERC			MoF
Total Project Cost	35.75	35.75	

Notes:

Component cost estimates include price and physical contingencies.

Costs are inclusive of tax.

³⁰ Component costs (Components 1, 2 and 3) are inclusive of the amounts for refinancing the PA.



ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY: Samoa

Samoa Climate Resilient Transport Project

Project Institutional and Implementation Arrangements

1. The project implementation period for SCRTP is expected to be five years from the estimated effectiveness date of January 15, 2019 through the closing date of January 31, 2024. The EA for the SCRTP will be MoF. MoF will also act as the IA for Sub-component 3(i) on strengthening the capacity of CTSSU and Component 4 on the CERC. LTA, MWTI and MNRE will act as the IA for the other Sub-components of the SCRTP (as per Table 1.1). Samoa, through the MoF, will enter into a Subsidiary Agreement with LTA, pursuant to which LTA shall be required, on behalf, and acting as agent, of Samoa, to, *inter alia*, carry out its designated day-to-day responsibilities under the SCRTP.
2. SCRTP will utilize implementation arrangements that are new for Samoa and will address lessons learned from current and historic projects in the transport sector. Through establishing centralized units at two levels, the GoS will benefit from improved efficiency and capacity development with knowledge and resources shared amongst development projects. In a sector-wide approach developed by the GoS and endorsed by Cabinet on November 22, 2017, SCRTP will benefit from three levels of support to the sector as per Figure 1 below.

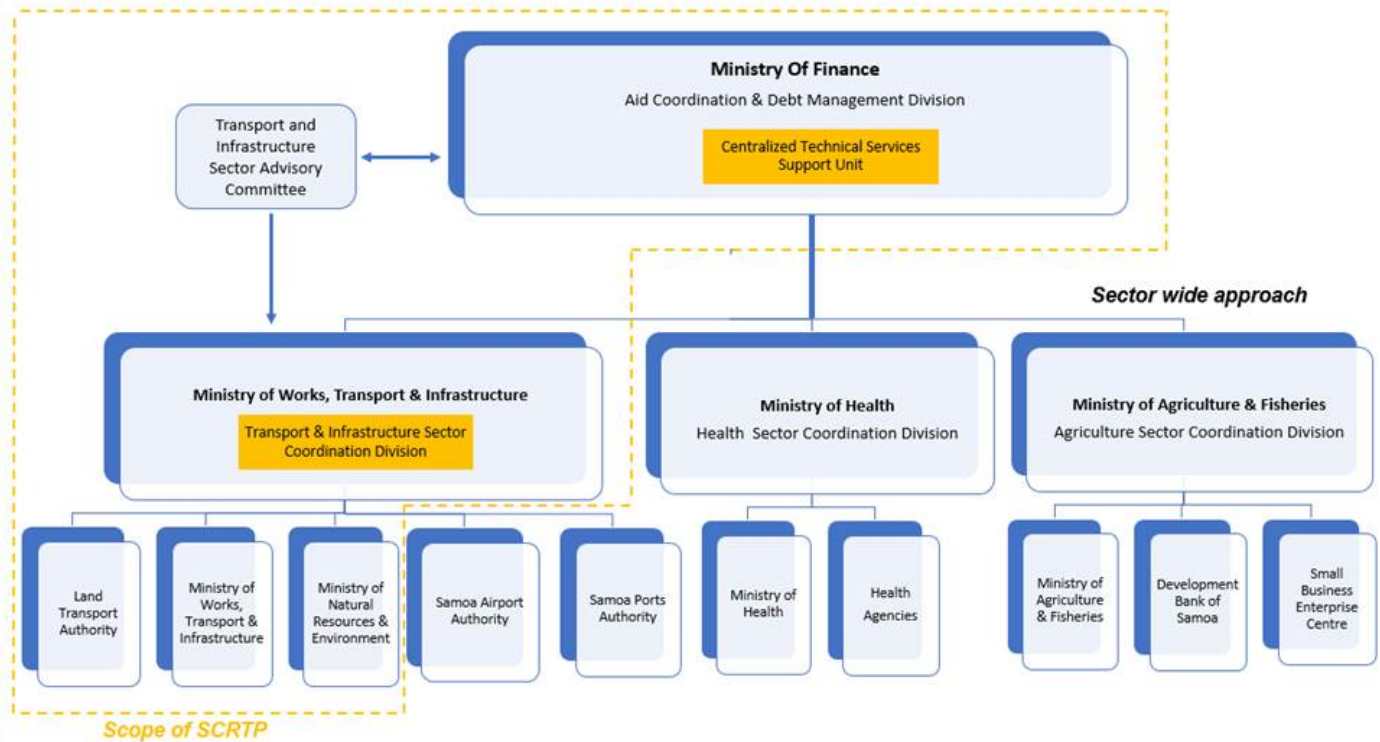


Figure 2.1 Implementation Oversight and Support Relationships

3. **Centralized Technical Services Support Unit (CTSSU).** Housed in the Aid Coordination and Debt Management Division of the MoF (the EA for SCRTP), the CTSSU will provide high-level oversight, training and service support on project implementation for all development projects (including WB co-funded projects). It will consist of high-level (international) specialists in the fields of procurement, financial management, monitoring and evaluation and safeguards, under the supervision of the Aid Coordination & Debt Management ACEO. The specialists will work with the EA, the Implementing Agency/Agencies, and Sector Coordination Division (in this case the TISCDC) across all sectors to provide implementation guidance, coordination and hands-on support where necessary. In addition, the CTSSU will develop and provide capacity building programs for relevant staff of the IAs, sector coordination and the EA. Support will be provided where required; particularly at the commencement of these arrangements while capacity development efforts are undertaken.
4. **Transport and Infrastructure Sector Coordination Division (TISCDC).** The TISCDC will be housed within MWTI, staffed with a Sector Coordinator (ACEO level) and Principal and Senior Officers in the areas of financial management, monitoring and evaluation, safeguards and procurement, will assist the IAs with project implementation and is generally responsible for overall monitoring and coordination of the implementation of the Transport and Infrastructure Sector Plan. SCRTP will finance the five positions for the first two years to support the coordination of project implementation activities for IDA as well as capacity building within the sector. TISCDC will be responsible for, *inter alia*, coordinating project implementation activities among the agencies working on projects in the transport and infrastructure sector; coordinating sector reporting; coordinating training and support on project implementation between CTSSU and the agencies working on



projects in the sector; and providing support on project implementation. For SCRTP, the TISCD will work closely with LTA, MWTI and MNRE on project implementation and preparation of all reports required to be prepared under the project, for submission to the focal point in MoF for its review, with assistance provided by CTSSU as and when required. The TISCD will be guided by the Transport and Infrastructure Sector Advisory Committee (TISAC). The TISAC will not be involved in day to day implementation arrangements; the committee will provide general sector oversight and policy direction for projects in the transport and infrastructure sector, including the SCRTP (this is a similar role to that played by the Transport Project Steering Committee for the Samoa CRWCR and ERAP projects). As capacity and expertise for undertaking fiduciary duties in accordance with WB procedures is currently limited, the TISCD will require extensive training and hands-on-support in its initial years of establishment.

5. **Implementing Agencies (IAs).** Responsibility for the day-to-day operations, technical aspects and the management of SCRTP activities will fall to the IAs who are responsible for Sub-components which fall under their jurisdiction.
- **LTA.** LTA is responsible for designing, constructing and maintaining the country's national road infrastructure. Road asset management is a core function of LTA and support has been provided to LTA through previous engagements to support core program management functions and enhance institutional capacity. LTA also oversees road use and is accountable for registering vehicles, issuing drivers licenses, enforcing vehicle load limits and promoting road safety. Under SCRTP, the LTA PMD will be responsible for Sub-components that fall under its mandate, including but not limited to, the implementation of civil works, the driver licensing pilot, and management of the road asset management system. The LTA PMD has had experience with WB projects over the past decade, including the First Infrastructure Asset Management Project (SIAM), SIAM-2, Post Tsunami Reconstruction Project (PTRP), ERAP and CRWCR. As such, it is familiar with Bank procedures and requirements, which reduces implementation risk of the activities for which it is responsible. Historically, individuals and/or consulting firms have been hired to assist LTAs PMD with meeting the technical and fiduciary requirements of projects including financial management, safeguards and procurement. Under the new arrangements for SCRTP, the individual focal point within the LTA will be the project manager of the PMD, with terms of reference, qualifications, and experience satisfactory to the Association. The PMD will receive project management support from the TISCD and CTSSU as needed. One exception to this is technical engineering support, with an individual consultant (Technical Advisor) funded under SCRTP to work closely with the PMD, who will be recruited within six months from the effective date of the project.
 - **MWTI.** MWTI is responsible for the development of an efficient transport policy for Samoa, as well as undertaking research and advising on priorities and investments within the transport sector. Until mid-2009, MWTI was responsible for managing Samoa's road sector. However, as part of the Government's initiatives to reform and consolidate road asset management and road use functions, MWTI's responsibilities were formally transferred to LTA in July 2009. As such, under SCRTP, MWTI will be responsible for Sub-components that include aspects related to policy and legislation and will house the TISCD. Within MWTI, there will be a designated focal point responsible for technical issues pertaining to the Ministry's Sub-components.
 - **MNRE.** MNRE is responsible for land planning, management and compliance. Under SCRTP, MNRE's two Sub-components are focused on issues related to surveying. Within MNRE, there will be a designated focal point responsible for technical issues involving these Sub-components.



- **MOF.** In addition to the CTSSU, MoF will be responsible for the implementation of the CERC. Refer to Annex 5 for more information on the implementation of the CERC. Within MOF, a focal point for technical issues involving these Sub-components will be appointed. This focal point, or another appointed focal point, in MoF, will be responsible for coordinating all activities under the project and reviewing and submitting to the Association all reports required to be submitted under the project, as prepared/consolidated by TISCD. This or these focal points will have terms of reference, qualifications, and experience satisfactory to the Association.

Financial Management

6. **Summary.** The existing FM systems are assessed as adequate to meet the FM requirements as stipulated in Bank Directive: Investment Project Financing. The Project's overall FM risk is rated "moderate".
7. **Budgeting.** MWTI through the TISCD in close collaboration with LTA, MNRE and MoF, will prepare annual work plans and budgets with appropriate levels of detail (for example, Component or Category, whichever is deemed most relevant and useful). MWTI through TISCD will review this document and report on the analysis of budget vs. actual expenditure and incorporate this into the project reports for each calendar semester for SCRTP. MoF will submit the project reports for each calendar semester along with the annual work plans and budgets to the Bank.
8. **Counterpart Funding.** No counterpart funding is envisaged.
9. **Funds flow.** MoF will co-ordinate and authorize the funds flow, and make all payments for the Project. A Designated Account will be established for the Project (refer Disbursement Section below). Funds will flow from the WB to GoS into the Designated Account for advances, or to the nominated GoS bank account for reimbursement of pre-financed expenditures. Funds can also flow to contractors via direct payment or to supplier's commercial bank for special commitments.
10. **Accounting and maintenance of accounting records.** MoF, MWTI and MNRE use "Finance One" the Government of Samoa accounting system and operates on a cash basis of accounting. LTA uses "Mind Your Our Business (MYOB)" accounting system and operates on an accrual basis of accounting. Copies of all accounting records for the Project will be required to be maintained and made available to both auditors and the WB, as required.
11. **Internal controls (including internal audit).** Government agencies and public bodies in Samoa are required to comply with the financial management policies and procedures as detailed in the "*Public Finance Management Act (PFMA) 2001*" and *Treasury Instructions 2015*. These are acceptable. MoF and MWTI have an internal audit and investigations division, and LTA has an internal audit division. MNRE does not have an internal audit and investigations division. An internal audit (pre-audit process) function is furthermore performed by the Samoa Audit Office over government ministry transactions processed through the Finance One system.
12. **Periodic financial reporting.** Unaudited interim financial reports (IFRs) of the Project will be prepared on a quarterly basis. The financial reports will include an analysis of actual expenditure for the current period,



year to date, and the cumulative to date, plus outstanding commitments, compared against the total Project budget. The format will be developed and agreed by the IAs and the WB before the due date for the submission of the first IFRs. The IFRs will be forwarded to the WB within 45 days of the end of each calendar quarter.

13. **External audit.** An annual audit of the Project financial statements will be required. The audited financial statements, audit report, and management letter must be received by the WB within six months of the end of the fiscal year and shall be made publicly available by the Recipient in a manner acceptable to the WB according to the General Conditions of IDA Grants. The Samoa Audit Office is responsible for the audit of public assets, liabilities, equity and money and the audit of financial statements of public bodies and related agencies. The audited Project financial statements are to be prepared in accordance with the “International Public-Sector Accounting Standard Under the Cash Basis of Accounting”, as required by MoF for all projects. There are no overdue audits.

Disbursements

14. **Disbursement Methods and Supporting Documentation Arrangements.** Four disbursement methods will be available for the Project: (a) advance; (b) reimbursement; (c) direct payment; and, (d) special commitment. Disbursements will be based on statements of expenditures. Required supporting documentation for disbursements will be outlined in the Disbursement Letter.
15. **Mandatory Direct Payment.** The Project is subject to the Mandatory Direct Payment Pilot, which aims to assist countries in processing payments. Only the Direct Payment disbursement method will be used for all payments under the contracts identified as being subject to Mandatory Direct Payment, unless the special commitment disbursement method is used. Contracts subject to Mandatory Direct Payment will be highlighted in the activity description when loaded into STEP.
16. **Designated Account.** The Project will need a Designated Account for Advances, with the currency of the Designated Account in USD. One segregated Designated Account will be required to receive the proceeds of the sources of financing. The Designated Account will be in the Central Bank of Samoa. The ceiling of the Designated Account will be specified in the Disbursement and Financial Information Letter (DFIL).



Table 2.1. Eligible Expenditures

Category	Amount of the Grant Allocated (Expressed in SDR)	Amount of the Grant Allocated (Expressed in USD equivalent)	Percentage of Expenditures to be Financed (Inclusive of Taxes)
(1) Goods, Works, Non-consulting Services, Consulting Services, Operating Costs, and Training and Workshops for all Components except 3(i) and 4 of the Project	21,550,000	30,250,000	100
(2) Consulting Services, Operating Costs and Training and Workshops for Part 3(i) of the Project	1,800,000	2,500,000	100
(3) Emergency Expenditures under Component 4	0	0	100
(4) Refund of Preparation Advance	2,150,000	3,000,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
Total Amounts	25,500,000	35,750,000	

Table 2.2. Funding Sources

Source	Amount (SDR, millions)	Amount (Expressed in USD equivalent)	Share of Total (%)
World Bank - IDA grant	25,500,000	35,750,000	100
Total	25,500,000	35,750,000	100

17. **Disbursement conditions.** No withdrawal shall be made for payments from Category 3 (Component 4) unless: (i) the Recipient has declared that an eligible emergency has occurred and the Association has agreed with such determination; and, (ii) complied with all requirements set forth in the section of the Financing Agreement on the Emergency Response Part implementation.

Procurement

18. **Institutional arrangement for procurement.** The IAs will be responsible for ensuring the procurement requirements of their respective Sub-components (as per Annex 1, Table 1.1) are met. They will receive procurement support from TISCD’s Principal Procurement Officer (financed by the WB), TISCD’s Senior Procurement Officer (financed by the Government of Samoa) and CTSSU’s Procurement Specialist.
19. **Applicable procurement regulations.** Procurement for the SCRTP will be carried out in accordance with the WB Procurement Regulations for IPF Borrowers (Procurement Regulations), July 2016 (revised November



2017), and the provisions stipulated in the Financing Agreement as well as the Government’s procurement requirements (as detailed in the applicable Treasury instructions and Procurement Guidelines). Procurement activities will use the Bank’s Standard Procurement Documents (SPD) where required.

20. **Procurement risk assessment.** A procurement risk assessment of the four IAs responsible to implement the procurement activities for the Project was carried out and the overall procurement risk rating is “substantial”. The new centralized support arrangements at the sector and central government agency level and the implementation arrangements may pose some initial risk to project implementation, particularly in the early phases of establishment. However, to minimize these early risks, the fast tracking of the recruitment of the CTSSU and TISCD personnel is already in progress. The main procurement-related risks for SCRTP identified are:

- (a) Limited number of sufficiently qualified and experienced contractors in the market;
- (b) Limited capacity of the Government staff with regards to procurement and contract management;
- (c) Lack of knowledge and practice in application of the WB requirements detailed in the Procurement Regulations; and,
- (d) Lengthy approval and clearance processes.

21. The following mitigation measures are proposed:

- (a) IAs will apply the procurement procedures detailed in the PAD and will develop detailed checklists to ensure consistent and compliant project procurement.
- (b) A Principal Procurement Officer and a Senior Procurement Officer will be hired and placed in the TISCD and a Procurement Specialist (from CTSSU) will provide support to all IAs.

22. **Procurement types.** The various types of procurements to be financed by the proposed IDA grant and indicative cost estimates are noted in the following table and described below.

Table 2.3. Procurement Types

Type of Procurement
1. Works (US\$26.01 million equivalent)
2. Goods (US\$0.12 million equivalent)
3. Non- consulting Services (US\$0.59 million equivalent)
4. Consulting Services (US\$9.03 million equivalent)

23. **Procurement of works.** The procurement of works could include road network investments such as the construction or rehabilitation of roads, bridges, culverts as well as slope stabilization and rock fall protection.



24. **Procurement of goods.** The procurement of goods may include the procurement of specialist technical equipment such as mobile weigh pads, road safety equipment, axle load enforcement equipment, and asset management system hardware.
25. **Procurement of non-consulting services.** This will likely include the hiring of a company or individual to deliver non-consulting services on the ground, such as a control survey the Alafa'alava Road and others as may be required.
26. **Procurement of consulting services (firms and individuals).** It is anticipated that several specialist individual consultants/ firms may need to be hired to either support efforts on the ground or to assist the Government with policy development and/or regulatory reform.
27. **Advance Contracting.** Provision for Advance Contracting will be included for the procurement process for the second package of construction works for the WCR (Lots 3 & 4) to the point of contract award. As the design has already been completed for the entire length of the road, LTA will be able to conduct the procurement process prior to signing of the Legal Agreement for the new Project (as detailed in para. 5.1, Section V. "Procurement Provisions" of the Borrower Regulations). Advance contracting may also be used for other activities prior to the signing of the Legal Agreement.
28. **Frequency of procurement supervision.** In addition to the prior review to be carried out by the WB, implementation support missions will be undertaken at least once per year. One in five procurement packages not subject to WB prior review will be examined ex-post on an annual basis.
29. **Procurement Plan.** A draft Procurement Plan has been prepared for the Preparation Advance covering the key Project preparatory activities. In addition, a Project Procurement Plan dated July 21, 2018 has been prepared and is detailed in the PPSD. Ongoing updates to the Procurement Plan will be done in conjunction with an update of the Financial Position Plan, which will be led by MoF.
30. **Mandatory Direct Payment.** The Project is subject to the Mandatory Direct Payment Pilot, which aims to assist countries in processing payments. Only the Direct Payment disbursement method will be used for all payments under the contracts identified as being subject to Mandatory Direct Payment, unless the special commitment disbursement method is used. Contracts subject to Mandatory Direct Payment will be highlighted in the procurement activity description when loaded into STEP.

Environmental and Social (including safeguards)

31. There is currently thin capacity to adequately inform and influence project design and to prepare the requisite safeguard documents and conduct safeguard assessments. A Principal Safeguards Officer and a Safeguards Specialist will be located both within the TISCD and within CTSSU respectively. These individuals will help to build capacity and provide on-going support where needed to ensure successful implementation and compliance with safeguard procedures and documents. In addition, a Safeguards Specialist (Consultant) has been hired under ERAP and CRWCR and has already been providing LTA's PMD with safeguard support; this arrangement may also continue under SC RTP.



Monitoring and Evaluation

32. Project M&E will be conducted on two levels: (i) periodic monitoring will involve project reports for each calendar semester, to be prepared by TISCD in collaboration with MWTI, MNRE, LTA, and MoF, which are consolidated and provided to the Association by MoF, that track progress in terms of distribution of inputs, disbursement of funds, and achievement of targeted indicators, as outlined in the Results Framework in Section VII; and, (ii) project evaluation, which measures outcomes achieved against the baseline indicators.
33. MoF will be responsible for the overall coordination of activities and consolidation of reports from all IAs, for submission to the WB.
34. The key instrument for evaluating SCRTP are the indicators identified in the Results Framework.
35. The Bank will provide implementation support for the Project on an on-going basis and visit Samoa every 3 – 6 months to monitor and evaluate progress.
36. A ‘mid-term’ review mission will be held not later than three years after the effective date of the Project, or such other period as may be agreed with the Bank. It is envisaged that the mid-term review will be conducted at either the halfway point of the Project period or when the funds are 50 percent disbursed, and provides an opportunity to review the Project and take stock of implementation progress. Following the mid-term review, adjustments to project support may be required, including a project restructuring and/or possible additional financing from any other sources based on the implementation experience. The WB task team will work with the MoF, LTA, MWTI and MNRE to clarify the requirements necessary to effect any changes. Any changes to the Project that require amendments to the Financing Agreement will require a formal request from the Government’s signatory to the Financing Agreement.



ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY : Samoa

Samoa Climate Resilient Transport Project

Strategy and Approach for Implementation Support

1. The implementation support plan is based on previous experience and lessons learned from other road sector projects in Samoa as well as the Project's risk profile. The approach is to provide ongoing and regular implementation support.
2. The LTA has had experience with WB projects, including PTRP, SIAM, SIAM-2, ERAP and CRWCR. As such, it is familiar with Bank procedures and requirements, which reduces implementation risk. However, neither MWTI nor MNRE has had recent experience with WB as an IA within the road sector (it worked closely with these Ministries as IAs under SIAM and SIAM-2 before 2009), which poses an implementation risk. It is expected that additional support may be required from the WB, along with the TISCD and CTSSU to ensure that there is effective coordination and capacity building support.
3. The MoF, in consultation with the LTA, MWTI and MNRE will determine the appropriate timing of reviews, taking into consideration the availability of participants. The WB implementation review will cover non-technical aspects of the support including: (i) FM; (ii) procurement; (iii) implementation arrangements; and, (iv) safeguards. In addition, field visits will also be undertaken to project sites. To the greatest extent possible, the WB team will accommodate any written request for 'as-needed' support for the Project, including fiduciary aspects.
4. Each implementation review mission will result in the production of a joint Aide-Memoire that will be discussed at a wrap-up meeting to be chaired by MoF. It is envisaged that the Aide-Memoire will provide an overall view of the current situation relating to project implementation, including findings and observations from the WB. Representatives from the relevant GoS agencies will be invited to attend the kick-off, wrap-up as well as technical meetings. Furthermore, any adjustment requiring more frequent reviews will be discussed, agreed upon, and documented in the Aide-Memoire.
5. A 'mid-term' review mission will be held not later than three years after the effective date of the Project, or such other period as may be agreed with the Bank. It is envisaged that the mid-term review will be conducted at either the halfway point of the Project period or when the funds are 50 percent disbursed, and provides an opportunity to review the Project and take stock of implementation progress. Following the mid-term review, adjustments to project support may be required, including a project restructuring and/or possible additional financing from any other sources based on the implementation experience. The WB task team will work with the MoF, LTA, MWTI and MNRE to clarify the requirements necessary to effect any changes. Any changes to the Project that require amendments to the Financing Agreement will require a formal request from the Government's signatory to the Financing Agreement.



- 6. Six months prior to the closing date of the Project, the Government will commence the preparation of its Implementation Completion and Results Report (ICR). The WB ICR author will participate in the final implementation review and will gather the necessary information to help prepare the ICR.

Implementation Support Plan and Resource Requirements

- 7. Missions to support implementation for SCRTP will be carried out every 3–6 months. At least once per year the missions will include technical, fiduciary and safeguards team members, who will provide input into infrastructure design and construction, carry out post reviews on contract management, review safeguards compliance, and provide formal training where required. The implementation support plan will be reviewed annually to ensure that it meets the support needs of the Project. The estimated level of annual support needed to implement SCRTP is identified in the table below.

Table 3.1. Implementation Support Plan

Focus of Implementation Support

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Project launch and start-up	Task Team Leader Operations Officer Transport Analyst Technical Procurement Financial Environment Social Administrative Support Gender Specialist		ADB to address survey issues concurrently
12-60 months	Project implementation	Task Team Leader Operations Officer Transport Analyst Technical Procurement Financial Environment Social Administrative Support		
Other				

Skills Mix Required



Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	8 per year	3 per year	
Operations Officer	8 per year	3 per year	
Transport Analyst	8 per year	3 per year	
Technical	4 per year	2 per year	
Procurement Specialist	3 per year	2 per year	
FM Specialist	3 per year	2 per year	
Environment Specialist	3 per year	2 per year	
Social Specialist	3 per year	2 per year	
Gender Specialist	3 per year	1 per year	
Administrative Support	3 per year	0 per year	

Partners

Name	Institution/Country	Role
Asian Development Bank	Multilateral Development Bank	Road sector collaborator (Non-financial contributor to SCRTP)



ANNEX 4: SERIES OF PROJECTS

COUNTRY : Samoa

Samoa Climate Resilient Transport Project

1. The PC RTP SOP includes a series of independent projects to multiple Recipients whom are facing a common set of development issues. The SOPs share a common design to finance activities to systematically improve the resilience of PIC's transport networks to natural hazards and climate change. The program includes activities and investments at the country-level (Project), with each of the country projects self-standing.
2. At this stage, the Program will include a first phase (Phase 1), which will include a series of projects for Samoa, Tuvalu and Tonga. SC RTP will be the first project in the programmatic approach applied under the SOP. Though not currently envisaged, a second phase (Phase 2), may include additional investments for Phase 1 countries or may include additional countries.
3. A key characteristic of this SOP approach is that each project in the series is self-standing once the template has been designed. This means that each project design in the series follows the program template, but may be adapted to support the specific requirements from each individual country according to local realities and to move forward at its own pace (each country follows its own path based on its readiness). Most importantly, each of the projects is justified on its own merits even if the other projects under the program do not materialize.
4. **Development objectives.** The goal of the series is to: (i) support the Recipients in improving the resilience of their transport sector; and, (ii) in the event of an Eligible Crisis or Emergency, to provide an immediate response to the Eligible Crisis or Emergency. The programmatic series will focus on the road, maritime and aviation sectors, which have been identified as vulnerable in PICs. Each project in the SOP will have a PDO that feeds into the overarching development objective of the program.
5. **Rationale for Bank involvement.** The WB is already supporting numerous climate resilient investments in the transport sector in the Pacific; however, the approaches taken are often distinct on a country-by-country comparison. This series, rather than distinct country-specific projects will help to provide consistency and to systematically address the way that challenges are addressed in the transport sector by the WB, its clients, and participating donor partners by providing a project template (framework) approach to address specific issues that are commonly shared by different countries in the Pacific. Specifically, PICs' populations are among the most vulnerable to disasters and the impacts of climate change, and experience high social impacts. Transport is among the most vulnerable sectors throughout the region, as it not only constitutes a large share of public assets and Government budgets, but many transport sector assets (primary roads, airports and ports) are located within the coastal zone and there is often limited redundancy in the network because of lacking space, small populations and limited financial resources. Within the transport sector, a significant share of Government and international aid finances construction or rehabilitation of road networks, with an increasing emphasis to make roads more resilient to natural disasters and climate change.



- 6. Transport programs that employ a multi-pronged approach to climate resilience by improving sectoral and spatial planning, utilizing climate resilient infrastructure solutions, strengthening the enabling environment and supporting post-disaster recovery can help reduce future asset loss and improve well-being, and reduce service disruptions. For example, upgrading construction standards can reduce the impacts from more intense and frequent events, infrastructure maintenance can reduce damage and reduce the costs of repair or reconstruction, and asset management systems help to save resources (financial, human) associated with rehabilitation.
- 7. The SOP will support Recipients through integrating risks in a holistic manner, through the integration of resilient transport interventions into decision-making and implementation. The SIDS report outlines an infrastructure lifecycle that includes four key aspects for institutional Capacity and Coordination: (i) systems planning; (ii) engineering and design; (iii) operations and maintenance; and, (iv) contingency programming (Figure 4.1).

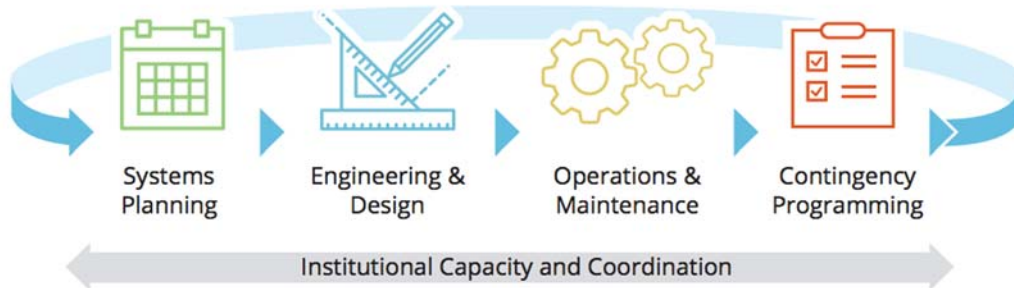


Figure 4.1. Transport Infrastructure Lifecycle³¹

- 8. The SOP will include actions that are in line with the infrastructure lifecycle, and will include building institutional capacity and coordination to integrate climate and disaster risk considerations in transport infrastructure lifecycle management. Examples of activities are included below (Table 4.1).

³¹ Climate and Disaster Resilient Transport in Small Island Developing States: A Call for Action. World Bank, 2017.



Table 4.1 Examples of Transport Infrastructure Interventions under the SOP

Component	Intervention	Examples
1	Systems Planning	Analyzing transport systems at a network level to identify critical infrastructure and redundancy; Designing transport infrastructure for connectivity and disaster risk management purposes.
2	Engineering & Design	Improving design standards; Undertaking vulnerability assessments (hazard, infrastructure, network level); Using innovative materials.
3	Operations & Maintenance	Mapping and inventorying transport assets; Improving arrangements for maintenance (institutional, financial, contractual); Mobilizing local communities in operations and maintenance of road assets.
4	Contingency Programming	Planning and developing sector strategies; Investing in emergency preparedness.
3	Institutional Capacity and Cooperation	Integrated government-wide objectives; Training.

9. **Program components.** The PC RTP SOP includes four pillars to help achieve the overarching development objectives:

- (a) **Pillar 1: Spatial and Sector Planning Tools:** This Component involves TA that will directly support countries by bringing about transformative change in the way that climate change is addressed in the transport sector. New tools are now readily available to PICs and have the potential to work well in low capacity environments. For instance, all governments can mitigate the impact of climate change and extreme weather events by assessing the level of hazard frequency and severity and map this against major points of vulnerability along their transport network. Examples of potential technical assistance that countries may consider include: (i) tools that enable stakeholders to identify vulnerabilities and design and evaluate appropriate interventions to make ports, airports, and roads more resilient; and, (ii) climate resilient transport strategies that identify measures to enhance resilience and prioritize investments to balance vulnerability reduction against cost implication. This will involve using best available climate change and natural hazard risk information to identify key hazard types and risk levels, such as sea-level rise, tropical cyclones, extreme rainfall and temperature events, tsunamis, etc., and then assessing the likely severity and timing of risk impacts for all major links of the transport network.
- (b) **Pillar 2: Climate Resilient Infrastructure Solutions:** Complex design solutions are often not fit-for-purpose in PICs due to their limited resources (human, fiscal and material). In most countries even vital, basic drainage is largely absent due to limited capital. Limited material resources create cost and environmental challenges when repairing, rehabilitating or building infrastructure. For example, some PICs need to import aggregate from other domestic islands while others import from other



countries, over a thousand kilometers away. In addition, some PICs rely upon desalination facilities for water. Considering their resource constraints, for the road sector, short- to medium-term design efforts will center on installing drainage and raising low-lying coastal roads. Longer-term solutions may also involve moving vulnerable coastal roads inland, with due consideration to land issues and of course limited capital. The Component will also finance designs that consider more innovative and resilient civil engineering solutions, for example geosynthetics such as the use of geocells for low-volume roads.³² Finally, coastal infrastructure may also be strengthened to help protect ports, and adjacent airports and roads. A menu of hard and soft options for coastal protection will be available to PICs. Traditional engineering approaches may focus on construction of seawalls, breakwaters and groins. Greener options to replace or complement hard coastal infrastructure may also be financed such as living shorelines and recovery of coastal habitats for mangrove replanting. A PICs choice between hard and soft options ultimately depends on availability of capital and the relative balance of technological and labor resources. All these examples are fit-for-purpose in the Pacific because the designs can be readily implemented in low capacity environments and they are generally more affordable than complex resilience solutions more appropriate for larger countries with greater capacity and resources.

- (c) **Pillar 3: Strengthening the Enabling Environment:** Measures to strengthen the enabling environment include capacity building, and legal and regulatory reform. Investment in capacity building is essential because a consequence of PICs' small populations is that few ministries have even one member of staff focusing on climate resilience and many working in infrastructure are not fully informed of the risks climate change and severe weather events pose to transport infrastructure. Therefore, project management support within key implementing agencies will be a core component of delivery for all resilience projects. Support may include the provision of Climate Resilient Transport Advisers/Consultants to Ministries of Infrastructure or road authorities and resilience-related training and/or workshop(s) for relevant ministries and civil society organizations that deliver climate change related services for the transport sector. Key skills targeted for capacity building include: coastal engineering, GIS and database analysis, hydrodynamic modeling, geo-morphology, project management, and monitoring and evaluation. The enabling environment will also be strengthened through new and amended legal frameworks that enable PIC Governments to appropriate funding and create programs to strengthen resilience. On the regulatory side, reform will focus on updating design and planning standards and maintenance procedures, considering expected climate change. Creating incentives to support resilience-focused maintenance and fostering stakeholder engagement in the design of regulations are crucial for success. Possible measures include: fit-for-purpose obligations³³, performance-based standards, technical standards, and codes of practice.
- (d) **Pillar 4: Post-disaster recovery (i.e. Contingency Emergency Response):** Since PICs will remain vulnerable to climate change and severe weather events even with the successful implementation of the first three pillars, supporting post-disaster recovery will remain essential. This pillar is designed

³² Geocell pavements are an intermediate technology between interlocking paving stones and surface dressing used to construct durable concrete pavements which can have a lower cost than conventional alternatives.

³³ An obligation that binds a counterparty to ensure works are designed and constructed for their intended purpose. A consultant or contractor then would be liable to the client (i.e. country) in a situation where it has not met the obligation (e.g. ensuring a road has been constructed to handle current and future climate change and severe weather events).



to provide swift response in the event of an eligible crisis or emergency, defined as “an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact associated with natural or man-made crises or disasters”.³⁴

10. It is important to note that each project within the SOP will be aligned with the overall program’s objectives, but should be adapted to support the specific requirements from each individual country. For example, if a preparatory gap analysis suggests that a country already has robust spatial and sector planning tools (i.e. Pillar 1) in place, then that project may require very limited or no investments in that area, but may instead focus more heavily on activities the fall under the other pillars. Similarly, alongside investments in climate resilience, a project under this SOP may also focus on other sector priorities best addressed through that project (e.g. improving safety of transport assets or improving access) based on the countries’ respective needs.
11. **Program financing.** The proposed lending instrument is IPF, supporting a SOP. Each of the self-standing country Projects will finance a different group of eligible beneficiaries, and each is expected to last approximately five years. Other phases (i.e., Phase II), could potentially follow in the future, and may overlap with Phase I.
12. To implement the shared objective and approach, the projects in the series will finance activities that will be implemented nationally in each participating country. The projects include physical investments and technical and operational assistance.
13. The following projects are initially proposed to be included within the PC RTP SOP. SC RTP will be the first project in the series, with the Tuvalu Maritime Investment in Climate Resilient Operations (MICRO) Project and Tonga Climate Resilient Transport Project (TC RTP) to follow. The total cost of PC RTP is estimated to amount to US\$82.20 million equivalent over five years including US\$82.00 million in IDA grants and US\$200,000 in a Global Facility for Disaster Reduction and Recovery (GFDRR) grant (Table 4.2).

³⁴ As defined in Paragraph 12, Bank Policy: Investment Project Financing.



Table 4.2 Proposed Projects

	Project	Project Number	Project cost (US\$ million equivalent)	IDA Financing (US\$ million equivalent)	Trust Fund Financing	Approval
1	Samoa Climate Resilient Transport Project (SCRTP)	P165782	35.75	35.75	N/A	FY19
2	Maritime Investment in Climate Resilient Operations (MICRO)	P161540	20.20	20.00	0.20 (GFDRR Grant)	FY19
3	Tonga Climate Resilient Transport Project (TCRTP)	P161539	28.00	28.00	N/A	FY19
	Total		83.95	83.75	0.20	

14. **Lessons learned and reflected in program design.** The design of the PC RTP pillars has taken into consideration the lessons learned from other WB projects within the region. For example, the program includes measures to strengthen the existing implementation and institutional agencies recognizing the capacity constraints in participating countries. In addition, given the vulnerabilities of the transport sector to extreme weather and climate change impacts, lessons learned from other climate resilience projects and disaster risk management have been used to inform the design of the program components.

15. **Implementation.** The implementation period for each of the three countries in Phase I is planned to take up to five years. For Samoa, WB Board approval is scheduled Q1 FY19. It is proposed that all projects within the series would be approved by Q2 FY19. The implementation of the projects will occur at the national level via relevant IAs. The detailed institutional framework for SCRTP is included in Annex 2. Each country is responsible for implementing its respective Project.

16. **Results monitoring and evaluation.** Responsibility for overall M&E progress for each project towards the country project objectives and outcomes is the responsibility of the IAs in each country. Where feasible, indicators will be harmonized across projects participating in the series in alignment with the four-pillared approach, but the results framework may be adapted to support the specific requirements from each individual country. For example, a country not in need of Pillar 1 activities or that focuses more on other activities aligned with other pillars would not have indicators related to Pillar 1. In addition, a project that has an objective other than just climate resilience may incorporate additional indicators to monitor and evaluate progress related to that objective.

17. It is proposed that each project will have standalone PDO and intermediate indicators; however, program-level indicators will be included to highlight the contribution of each project towards the overall program through measuring instances where activities have been undertaken in each project that are aligned with the pillar approach. The program-level indicators proposed are:



- (a) Identified planning tools being used to improve climate resilience of roads.
 - (b) Identified climate resilient investments constructed and in use.
 - (c) Identified enabling environment solutions implemented.
18. Given the conditions of the fourth pillar, an intermediate indicator may be added in the event of an eligible crisis or emergency, for example: Time taken to initiate fund disbursement, as requested by Government, for an eligible crisis or emergency (target of four weeks).
19. If the design of a project in the series, such as SCRTP, comprehensively aligns with the pillars of the program, then that project may consider using these program-level indicators as project PDO-level indicators. However, other PDO-level indicators may need to be utilized if they better track the objectives of that specific operation.
20. **Sustainability.** PC RTP includes a strong focus in strengthening capacity and building resilience within the transport sector. The Program components will help to pave the way for a resilient and sustainable transport network and management systems.
21. **Key risks and mitigation measures.** The overall risks associated with the program are assessed as “moderate”. Below are the key risks to the Program and the mitigation measures:
- (a) **Sector strategies and policies.** The risks associated with the sectoral strategies and policies are moderate, with climate and disaster resilience recognized as a key development challenge in PICs. Some countries (e.g. Samoa) are already mitigating this risk through the design and implementation of sector planning tools such as road network vulnerability assessments and climate resilient road strategies. However, an ongoing challenge will be to balance the range of investment priorities and ensure there is political support. The projects aim to address this by streamlining climate resilience into ongoing sector activities.
 - (b) **Institutional capacity for implementation and sustainability.** The risks related to institutional capacity for implementation and sustainability are substantial. There is relatively weak implementation capacity for the Phase I countries. The program includes provisions to build capacity and support implementation agencies by strengthening the enabling environment. In addition, regular and intensive implementation support missions will help to further provide support in the implementation of country projects. Previous experience in implementing WB projects in the Phase I countries has also helped to identify what works well, and where further improvements can be made, with each project incorporating these lessons learned.
 - (c) **Fiduciary.** The primary fiduciary functions will be performed by each IA. There is however, relatively weak fiduciary capacity associated with the IAs. Mitigation measures informed by the FM and procurement assessments will be implemented and technical assistance provided. The overall environmental and social impacts of the Program are expected to be positive, with no significant



risks or irreversible adverse impacts envisaged. Each project will ensure that the WB Safeguard Policies are adhered to.

- (d) **Other.** The Pacific is vulnerable to disaster events that prove a challenge to ensuring long-term resilience. The Program includes not only a focus on building resilience in infrastructure and institutions to advance the resilience agenda, but also includes a CERC to help alleviate disaster response and recovery needs. The CERC component provides flexibility to the countries and will help to minimize disruptions to achieving the outcomes of the Program in the event of a disaster.



ANNEX 5: CONTINGENT EMERGENCY RESPONSE COMPONENT

COUNTRY : Samoa

Samoa Climate Resilient Transport Project

1. The CERC is a contingent financing mechanism available to gain rapid access to financing to respond to a crisis or emergency, and provides for immediate rehabilitation or reconstruction needs without needing to first restructure the original project thus facilitating rapid implementation. The CERC minimizes time and effort needed to make available uncommitted funds from an IPF to finance urgent needs. Following an eligible crisis or emergency, the Borrower may request the Bank to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted grant resources under the Project from other project components to cover emergency response. Consistent with Paragraph 12, Bank Policy: Investment Project Financing, *Projects in Situations of Urgent Need of Assistance or Capacity Constraints*, the CERC does not finance humanitarian assistance or relief.
2. Samoa is susceptible to crisis events and has been impacted in the past by geophysical and weather related extreme events. Having the CERC contributes to a robust and meaningful rapid response capacity and overall helps to build a holistic disaster risk management strategy. The inclusion of the CERC in an investment operation provides advantages in that it establishes an *ex-ante* mechanism through which Samoa can rapidly fund its post-disaster needs and reduce the need for a project restructuring to use allocated financing to respond to post-disaster priorities.
3. The reallocation of funds in an emergency would not cause serious disruption to the Project as Samoa has had previous experience in dealing with crisis or emergency events. In addition, the sector is frequently called upon to handle aspects of emergency response following extreme events. The inclusion of the CERC in the Project will help to support the road sector, which is susceptible to crisis events.
4. Key principles relevant to CERCs include: (i) focus on activities that can readily be implemented on the ground considering the circumstances; (ii) favor smaller-scale, local activities that generate buy-in and goodwill; (iii) keep the scope simple and realistic, especially where local conditions do not allow much situational analysis; and, (iv) take advantage of working with and completing the activities of development partners to maximize impacts.
5. **Activation criteria.** The project-specific CERC will be funded under the SCRTP budget. Following an eligible crisis or emergency, the CERC would be implemented in accordance with the rapid response procedures governed by the WB under Paragraph 12, Bank Policy: Investment Project Financing. In addition, the provisions of the IPF Policy, paragraph 12, regarding “Projects in Situations of Urgent Need of Assistance or Capacity Constraints” apply to CERCs when they are triggered. The funding provision for the CERC is SDR0.00 million, however can be increased by drawing down against uncommitted IDA funds under other components if necessary. Disbursement conditions would define the circumstances under which the CERC funds would become available.
6. Upon the “Declaration of Disaster”, the Recipient will undertake the necessary steps to complete a rapid



initial impact assessment with the objective of identifying a list of potential activities for inclusion. Upon compilation of the list of potential activities, the GoS will review and select those for financing under the CERC based upon: (i) eligibility and safeguard criteria outlined in the Financing Agreement; and, (ii) national priorities.

7. The request to trigger the CERC and seek approval of activities to be eligible expenditures for financing under Disbursement Category 3 (refer Table 2.1) will be communicated to the WB by Samoa in a letter. The letter should include information pertaining to: (i) the nature of the emergency, its impacts and confirmation of causal relationship (as supported by the “Declaration of Disaster”) between the event and the need to access the financing allocated to Disbursement Category 3; (ii) the nature of emergency activities (brief description); and, (iii) the CERC action plan of activities.
8. The Financing Agreement stipulates the establishment of adequate implementation arrangements, satisfactory to the Bank, including staff and resources for implementation of activities under Component 4: Contingency Emergency Response, to the Bank for its review and approval. A CERC POM for the Project is being prepared that will detail: (i) the process for triggering the CERC; (ii) the proposed emergency activities to be financed by the proceeds of the CERC; and, (iii) the coordination and implementation arrangements related to the execution of the activities.



ANNEX 6: MAP OF SAMOA WITH PROJECT SITES

