Public Disclosure Authorized

Public Disclosure Authorized

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

FOR OFFICIAL USE ONLY

Report No: PAD4091

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT

IN THE AMOUNT OF SDR27.8 MILLION
(US$40 MILLION EQUIVALENT)

TO THE

FEDERATED STATES OF MICRONESIA

IN SUPPORT OF THE

PACIFIC CLIMATE RESILIENT TRANSPORT PROGRAM, SERIES OF PROJECTS

FOR A PRIORITIZED ROAD INVESTMENT AND MANAGEMENT ENHANCEMENTS PROJECT

April 21, 2021

Transport Global Practice
East Asia And Pacific Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

Exchange Rate Effective February 28, 2021

Currency Unit =	United States Dollar (US$)
SDR 1 =	US$1.43927

FISCAL YEAR
October 1 – September 30

Regional Vice President:	Victoria Kwakwa
Country Director:	Paul Vallely
Regional Director:	Ranjit J. Lamech
Practice Manager:	Almud Weitz
Task Team Leader(s):	Sean David Michaels, Keelye Hanmer

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
BAC	Blood Alcohol Concentration
Cat-DDO	Catastrophe Deferred Drawdown Option
CBA	Cost-benefit Analysis
C-ESMP	Contractors' Environmental and Social Management Plans
CIU	Central Implementation Unit
CMU	World Bank Pacific Country Management Unit
DA	Designated Account
DFIL	Disbursement and Financial Information Letter
DoFA	Department of Finance and Administration
DoTC&I	Department of Transportation, Communications and Infrastructure
DPO	Development Policy Operation
DRIVER	Data for Road Incident Visualization, Evaluation, and Reporting
DSSI	Debt Service Suspension Initiative
EA	Executing Agency
EIRR	Economic Internal Rate of Return
ENSO	El Niño-Southern Oscillation
EPA	Environmental Protection Agency
ESCP	Environment and Social Commitment Plan
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
FM	Financial Management
FMIS	Financial Management Information System
FSM	Federated States of Micronesia
FSMIP	Federated States of Micronesia Maritime Investment Project
GBV	Gender-based Violence
GDP	Gross Domestic Product
GEMS	Geo-Enabling Initiative for Monitoring and Supervision
GFDRR	Global Facility for Disaster Reduction and Recovery
GoFSM	Government of the Federated States of Micronesia
GOPRC	Government of the People's Republic of China
GM	Grievance Mechanism
GRS	Grievance Redress Service
HR	Human Resource
IA	Implementing Agency
ICR	Implementation Completion and Results Report
IDA	International Development Association
IFR	Interim Financial Report
IDP	Infrastructure Development Plan
IOM	International Organization for Migration
JICA	Japan International Cooperation Agency
KIRMA	Kosrae Island Resource Management Authority
M&E	Monitoring and Evaluation

MTR	Mid-term Review
NPV	Net Present Value
OHS	Occupational Health and Safety
PAD	Project Appraisal Document
PCRTP	Pacific Climate Resilient Transport Program
PDO	Project Development Objective
PIA	Project Implementation Agreement
PIC	Pacific Island Countries
PIU	Project Implementation Unit
PMU	Program Management Unit
PPA	Programmatic Preparation Advance
PPSD	Project Procurement Strategy for Development
PRIME	Prioritized Road Investment and Management Enhancements Project
PSC	Project Steering Committee
PTA	Pohnpei Transportation Authority
RMI	Republic of the Marshall Islands
RPF	Regional Partnership Framework
RSSAT	Road Safety Screening and Appraisal Tool
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SIDS	Small Island Developing States
SISRI	Small Island States Resilience Initiative
SOP	Series of Projects
SORT	Systematic Operations Risk-rating Tool
SPD	Standard Procurement Documents
STEP	Systematic Tracking of Exchanges in Procurement
TC	Tropical Cyclone
TMP	Traffic Management Plan
U.S.	United States of America
USAID	United States Agency for International Development
USD/US$	United States Dollar
VOC	Vehicle Operating Costs

TABLE OF CONTENTS

DATASHEET **1**

I. STRATEGIC CONTEXT **7**

A. Country Context 7

B. Sectoral and Institutional Context 10

C. Relevance to Higher Level Objectives 12

II. PROJECT DESCRIPTION **13**

A. Project Development Objective (PDO) 13

B. Project Components 13

C. Project Beneficiaries 16

D. Results Chain 19

E. Rationale for World Bank Involvement and Role of Partners 19

F. Lessons Learned and Reflected in the Project Design 21

III. IMPLEMENTATION ARRANGEMENTS **22**

A. Institutional and Implementation Arrangements 22

B. Results Monitoring and Evaluation (M&E) Arrangements 25

C. Sustainability 25

IV. PROJECT APPRAISAL SUMMARY **25**

A. Technical and Economic Analysis 25

B. Fiduciary 28

C. Legal Operational Policies 29

D. Environmental and Social 29

V. GRIEVANCE REDRESS SERVICES (GRS) **31**

VI. KEY RISKS **31**

VII. RESULTS FRAMEWORK AND MONITORING **35**

ANNEX 1: Implementation Arrangements and Support Plan **47**

ANNEX 2: Detailed Project Description **55**

ANNEX 3: Economic Analysis **59**

ANNEX 4: Series of Projects **62**

ANNEX 5: PIC9 RPF – Country Program Adjustment responding to COVID-19 ..... **67**

ANNEX 6: Maps of FSM **72**

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Micronesia, Federated States of	Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P172225	Investment Project Financing	Substantial

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[✓] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[✓] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
17-May-2021	31-Aug-2028

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To improve the climate resilience of FSM's road network.

Components

Component Name	Cost (US$, millions)
Component 1: Spatial and Sector Planning Tools	1.50
Component 2: Climate Resilient Infrastructure Solutions	34.00
Component 3: Strengthening the Enabling Environment	4.50

Organizations

Borrower:	Federated States of Micronesia
Implementing Agency:	Department of Transportation, Communications & Infrastructure

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	40.00
Total Financing	40.00
of which IBRD/IDA	40.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	40.00
IDA Grant	40.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Micronesia, Federated States of	0.00	40.00	0.00	40.00
National PBA	0.00	40.00	0.00	40.00

Total	**0.00**	**40.00**	**0.00**	**40.00**

INSTITUTIONAL DATA

Practice Area (Lead)

Transport

Contributing Practice Areas

Climate Change and Disaster Screening

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

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
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

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

The Recipient shall provide oversight, policy direction, coordination, and support for Project implementation through the Project Steering Committee in accordance with the provisions of this Agreement, the Project Implementation Agreements, and the Project Operations Manual. (Section I.A.1 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall, by not later than three months after the Effective Date, establish and thereafter maintain

throughout the Project implementation period, a Project Steering Committee, chaired by its secretary of the Department of Transportation, Communications and Infrastructure (or their representative), comprised of, inter alia, the secretary (or their representative) of the Department of Finance and Administration, and representatives of the State Governments appointed by the respective state governor, and with an institutional framework, functions, and resources required for the implementation of the Project, in form and substance satisfactory to the Association. (Section I.A.2 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall, by not later than three months after the Effective Date, establish and thereafter maintain throughout the Project implementation period, a Project Implementation Unit within the Department of Transportation, Communications and Infrastructure, with mandate, composition and resources satisfactory to the Association, which shall be responsible for day-to-day management and implementation of the Project. (Section I.A.3 of Schedule 2 to the Financing Agreement)

Sections and Description

The Central Implementation Unit shall include staff, each with terms of reference, qualifications and experience satisfactory to the Association, performing the following key functions in support of Project: (a) Project management; (b) procurement; (c) environmental and social standards; (d) outreach and communications; (e) monitoring and evaluation; and (f) financial management. (Section I.A.4 of Schedule 2 to the Financing Agreement)

Sections and Description

The Project Implementation Unit shall at all times: (a) be led by a Project manager; (b) include, at a minimum, a Project officer; and (c) be supported by specialists from the Central Implementation Unit as described in Section I.A.4 of Schedule 2 to the Financing Agreement; each 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, the Central Implementation Unit, with mandate, composition and resources satisfactory to the Association, which shall be responsible for, inter alia, providing environmental and social, procurement, financial management, monitoring and evaluation and communications support for the Project. (Section I.A.4 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall, prior to the carrying out of any activities under Part 2 of the Project in a Recipient's state, enter into and thereafter maintain throughout the Project implementation period, a Project Implementation Agreement with the State Government of such state on terms and conditions satisfactory to the Association, which shall include, inter alia, the State Government's obligation to facilitate the implementation of the Project activities within its territory in accordance with the provisions of this Agreement, the Project Operations Manual and the ESCP. (Section I.B.1 of Schedule 2 to the Financing Agreement)

Sections and Description

Each State Government shall designate and thereafter maintain throughout the Project implementation period, a focal point responsible for, inter alia,
coordination of the Project related activities within the respective Recipient's state. (Section I.B.2 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall, by not later than three months after the Effective Date, adopt a Project Operations Manual, and thereafter ensure that the Project is carried out in accordance with the Project Operations Manual. (Section I.C of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall carry out, jointly with the Association, not later than three years after the Effective Date, or such other period as may be agreed with the Association, a Mid-Term Review for the Project. (Section II.2 of Schedule 2 to the Financing Agreement)

Sections and Description

The Recipient shall prepare and furnish to the Association, by not later than four months after the Effective Date and July 1 of each year for every subsequent year during the implementation of the Project, for the Association's review and no-objection, an Annual Work Plan and Budget, and ensure that the Project is implemented in accordance with the Annual Work Plans and Budgets. (Section I.D of Schedule 2 to the Financing Agreement)

Conditions

I. STRATEGIC CONTEXT

A. Country Context

1. **Geography and Demography.** The largest nation in the Micronesian sub-region, the Federated States of Micronesia (FSM), is made up of four semi-autonomous states (Chuuk, Pohnpei, Kosrae and Yap) located between Palau and the Philippines to the west, and the Republic of the Marshall Islands (RMI) to the east. Although its land area covers just 700 square kilometers, FSM consists of more than 600 islands scattered over an Exclusive Economic Zone of about 2.6 million square kilometers.[1]

2. As with other Small Island Developing States (SIDS) in the region, FSM faces significant challenges related to its small size, remoteness, geographical dispersion, environmental fragility and exposure to external shocks.[2] Frequent natural disasters and climate change impose high costs and may even threaten the physical viability of some areas of the main islands[3] in each state and the more remote outer islands. Furthermore, such events cause severe damage to infrastructure and other economic assets and have adverse impacts on livelihoods. As an archipelagic nation, FSM's economy is highly dependent on marine resources for international, inter-state and inter-island trade. Citizens of outer islands depend on maritime transport for travel to main and other outlying islands, and for access to education, markets and health services. Although seven islands have airstrips, only two planes provide domestic air service to the outer islands, one of which is a seven-seater and the other is a nineteen-seater.

3. The overall population of FSM is estimated to be 113,815 (2019), of which approximately 45 percent live in Chuuk, 37 percent in Pohnpei, 11 percent in Yap, and 7 percent in Kosrae. Although the population declined from a high of 107,432 in CY2000 to 102,843 in CY2010, the trend stabilized in 2012, with slight annual increases continuing through to the current year.[4] FSM has also experienced considerable internal migration across states, mostly from outer islands to the main islands' urban areas, and especially to Pohnpei, which hosts the Country's capital Palikir, as individuals are particularly drawn to employment with the National Government. Access to basic services is also generally higher in Pohnpei. Each State is diverse in terms of language, cultural norms, environmental and land tenure laws.

4. FSM is reported to have the highest estimated rates of poverty among the nine small remote islands (PIC9) covered in the Regional Partnership Framework (RPF) for FY17 to FY21 (extended by the Board of Executive Directors on February 6, 2020 to FY23).[5] These findings are based on a household income and expenditure survey conducted in 2013/14, which found about 41 percent of FSM's population is struggling to meet basic needs and 10 percent are living below the food poverty line. The survey also documented stark variation across FSM, with the basic needs poverty rate most severe in Chuuk (46 percent), followed by Pohnpei and Yap (39 percent), and Kosrae (21 percent).

[1] An Exclusive Economic Zone is a sea zone prescribed by the United Nations Convention on the Law of the Sea (UNCLOS) over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.
[2] World Bank, *Systematic Country Diagnostic*, Report No. 102803, World Bank, January 20, 2016.
[3] Main islands include Weno Island, Chuuk; Pohnpei Island, Pohnpei; Kosrae Island, Kosrae; and Yap Island Group, Yap.
[4] World Bank, *World Development Indicators database*, updated August 15, 2020.
[5] Household income and expenditure survey, 2013/14; World Bank Group, *Regional Partnership Framework for Nine Pacific Island Countries*, FY17-21, Report No. 120479, World Bank, 2016.

5. **Economy and Market Considerations.** Following independence in 1986, FSM entered into a Compact of Free Association (Compact) with the United States of America (U.S.), whereby the U.S. provides yearly financial transfers to the FSM, access to a range of National Government services and programs, and open migration to the U.S. for FSM citizens among other arrangements. In 2003, certain provisions of the Compact were amended, most notably the economic provisions.[6] The most recent agreement not only supports Compact Sector Grants designed to help sustain the delivery of public services, but also establishes a Compact Trust Fund intended to replace the Sector Grants when they terminate in 2023. Through the Trust Fund, the Compact seeks to prepare FSM for self-sufficiency and economic sustainability post 2023. However, recent projections indicate that the expected value of the Trust Fund corpus in 2023 will not be sufficient to both preserve its real value and provide annual disbursements equivalent to the current level of sector grants – meaning a fiscal adjustment may be required. It will be a major challenge for FSM to carry out such a fiscal adjustment without reducing access to and quality of public services, especially those delivered to the poor.[7] In 2019, during the FSM Presidential inauguration, the U.S. Secretary of State visited FSM to announce the willingness of the U.S. to negotiate post-2023 Compact Sector Grants continuation. In November 2019, the U.S. conducted a Compact Listening Tour to all three Compact Countries – FSM, Marshall Islands and Palau – to hear what had and what had not worked under the current Compact terms.

6. In 2018, Gross Domestic Product (GDP) was about US$401 million, which equates to some US$3,568 per capita.[8] The public sector is a major part of the FSM economy, accounting for around 32 percent of GDP and 48 percent of formal sector employment. Outside of the public sector, agriculture and fisheries are the main economic activities, contributing around 23 percent of GDP. Small scale service industries, such as inbound tourism, wholesale and retail trade, make up the remainder of the economy. Most goods are imported and there are few exports. During 2018, FSM ran a trade deficit, with the total value of exports at around US$143 million and the total value of imports at around US$263 million. Fiscal policy is highly dependent on foreign aid and fiscal transfers, primarily from the U.S. via the Compact, typically for public investments, and service provision in education and health. Foreign grants have averaged 37 percent of GDP over the past decade.

7. **COVID-19.** The economic and market considerations noted above are in flux due to the impact of COVID-19. FSM's pre-existing structural inequalities and difficulties in service delivery have been exacerbated by COVID-19 restrictions. Inadequate information, key healthcare gaps, and barriers to service delivery are also prevalent. The accompanying economic downturn and self-imposed travel restrictions have substantially depressed demand for labor, goods, and services both in the formal and informal economies, curtailing income generating opportunities. Loss of work due to COVID-19, a sharp decline in remittances due to increasing global unemployment, and travel restrictions[9] translate into a spike in poverty and food insecurity. The National Government of the Federated States of Micronesia (GoFSM) was proactive in their approach and response to COVID-19. GoFSM declared a state of emergency early in the COVID-19 Pandemic on January 31, 2020 which expanded to include travel restrictions, the establishment of a taskforce, and a release of funding. As of March 2021, there are no confirmed cases of COVID-19 in FSM, and stringent travel restrictions are in place.

[6] The FSM Congress approved the amendments on May 26, 2004 following earlier ratification by the four FSM states. On June 25, 2004, the FSM and U.S. Governments signed documents to officially implement the Compact, as amended. http://www.uscompact.org/about/cofa.php

[7] World Bank Group, *Regional Partnership Framework for Nine Pacific Island Countries*, FY17-21, Report No. 120479, World Bank, 2016.

[8] World Bank, *World Development Indicators database*, updated August 15, 2020.

[9] Pacific Humanitarian Team, Pacific Humanitarian Team COVID-19 Response Plan, accessed May 15, 2020, *https://reliefweb.int/sites/reliefweb.int/files/resources/PACIFIC%20HUMANITARIAN%20COVID-19_Appeal_May0720.pdf*

8. FSM's economy is highly vulnerable to the impacts of COVID-19 due to a high reliance on Overseas Development Assistance (ODA), contributing over 20 percent of gross national income, remittances, and inbound tourism expenditure, each accounting for approximately seven percent of GDP. A migration survey conducted in 2012 indicated that 49,840 Micronesian nationals currently reside in the U.S. who are likely to have been severely impacted by lockdown measures and unable to continue to provide resources to their families and communities in FSM.[10]

9. The FSM Maritime Investment Project (FSMIP) utilized US$2.5 million through its Contingent Emergency Response Component (CERC) to address urgent COVID-19 emergency response and preparedness needs. The CERC funding is being used to supply medical equipment, pharmaceuticals and personal protective equipment (PPE). Refer to Annex 5 for more detail on the country portfolio adjustments being made by the World Bank to support FSM with relief, restructuring, and resilient recovery to COVID-19.

10. **Natural Hazards and Climate Change in FSM.** As with other small island nations in the region, FSM faces significant challenges related to its small size, remoteness, geographical dispersion, environmental fragility and sensitivity to external shocks.[11] Droughts, typhoons, storm waves, flooding and landslides all affect FSM. The climate in FSM varies considerably from year to year due to the El Niño-Southern Oscillation (ENSO). In Pohnpei, El Niño tends to bring drier conditions during the dry season, but higher than average rainfall during the wet season, and La Niña tends to bring above average rainfall in the dry season. The West Pacific Monsoon affects the western states of Chuuk and especially Yap more than the eastern states of Pohnpei and Kosrae. The West Pacific Monsoon moves farther east during El Niño resulting in more rainfall, and to a more western position during La Niña resulting in less rainfall.

11. FSM is particularly vulnerable to the impacts of climate change and is likely to suffer serious adverse environmental, social and economic losses as a result of climate change induced hazards. For example, in 2015, Typhoon Maysak wiped out 90 percent of key agricultural crops in Chuuk and Yap, affecting 29,000 people and causing US$8.5 million in direct damages.[12] The population of FSM is vulnerable to storms and increased precipitations and those located close to the coastline, which represent the vast majority of the population, are also exposed to the consequences of sea level rise and coastal erosion. The negative impacts of climate change are already evident in FSM. For instance, saltwater intrusion from rising sea levels damage crops and is contaminating freshwater supplies, while there is an increased incidence of extreme weather events such as storm surges. Formally self-sustaining atoll communities now rely on imported food and water during times of stress. Exacerbated by sea level rise, extreme spring tides, known in FSM as 'king tides', are causing intense marine inundation that damages taro beds, soil, agro-forestry resources, and critical infrastructure along the coast, especially on low atoll islets.[13]

12. Climate impacts all aspects of life in FSM and understanding the possible future climate of FSM is important so that people and GoFSM can plan for changes. The following projections have been gathered by the National

[10] FSM Department of Transportation, Communications & Infrastructure, *Federated States of Micronesia Infrastructure Development Plan FY 2004-FY2023*, (2004), *https://policy.asiapacificenergy.org/sites/default/files/idp.pdf*
[11] World Bank, *Systematic Country Diagnostic*, Report No. 102803, World Bank, January 20, 2016.
[12] United States Agency for International Development, Micronesia – *Typhoon Maysak Fact Sheet #3, Fiscal Year (FY) 2015, (2015), accessed* April 23, 2015, *https://reliefweb.int/sites/reliefweb.int/files/resources/04.22.15%20-%20USAID-DCHA%20Typhoon%20Maysak%20Fact%20Sheet%20%233.pdf.*
[13] University of Hawaii, *Climate Change in the FSM – Food and Water Security, Climate Risk Management, and Adaptive Strategies*, (2010).

Weather Services Offices of FSM and the Pacific-Australia Climate Change Science and Adaptation Planning Program. Projections for all emissions scenarios indicate that the annual average air temperature and sea-surface temperature will increase in the future. By 2030, under a very high emissions scenario, this increase in temperature is projected to be in the range of 0.6-1.1 degrees Celsius relative to the period 1986-2005. Almost all the global climate models project an increase in average annual and seasonal rainfall over the course of the 21st century. However, there is some uncertainty in the rainfall projections and not all models show consistent results. Models generally suggest a greater increase in wet season rainfall and extreme rainfall days over FSM, and drought frequency is projected to decrease. FSM is in a region where projections tend to show a decrease in typhoon frequency by the late 21st century. Furthermore, sea level is expected to continue to rise in FSM, where by 2030 under a very high emissions scenario, this rise in sea level is projected to be in the range of 41 – 90 centimeters. The sea level rise combined with natural year-to-year changes will accentuate the impact of storm surges and coastal flooding.[14]

13. **Gender.** For women in FSM there are multiple barriers to having equal opportunities, as well as a life free from violence and coercion. Priority areas of GoFSM's national gender planning include addressing female unemployment and occupational sex segregation in the labor market, teenage pregnancy, violence against women and girls, and limited access to justice and protection for women. The labor force participation rate for women in FSM was only 48.4 percent as of 2010, compared with 66.1 percent for men. The number of female wage and salary earners was less than half that of males – and women comprised only 14 percent of the non-agricultural sector.[15] Not only are women less represented in the paid workforce, they are concentrated in lower positions, with comparatively less pay, thereby impacting lifetime earnings.[16] Participation of women at the highest levels of decision making remains very limited, and women continue to be highly under-represented at the legislative and executive levels of government. In addition, FSM is one of only three countries worldwide that has zero women represented in the National Legislature.

14. **Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH).** SEA and SH prevalence levels in FSM are significant: one in three women (32.8 percent) have experienced physical and/or sexual violence by an intimate partner in their lifetime, 18 percent experienced sexual violence by an intimate partner, and eight percent have experienced sexual violence by someone other than a partner. Fourteen percent of women experienced child sexual abuse before the age of 15.[17]

B. Sectoral and Institutional Context

15. **Road Infrastructure.** FSM's road network is vulnerable to climate change induced risks such as sea level rise, intensified storm surge, increased precipitation, and flooding. The road network facilitates the movement of

[14] Pacific-Australia Climate Change Science and Adaptation Planning Program, *Current and Future Climate of the Federated States of Micronesia*, (2015).
[15] United Nations Conference on Trade and Development, *Small Island Developing States: Challenges in Transport and Trade Logistics*, (2014).
[16] In 141 countries, the loss in human capital wealth due to lifetime gender income inequality is approximately $160.2 trillion. This suggests that globally, human capital wealth could increase by 21.7 percent and total wealth by 14.0 percent, with gender equality in earnings and reduced occupational sex segregation. For further information see Wodon, Quentin, and Benedicte de la Brière. 2018. Unrealized Potential: The High Cost of Gender Inequality in Earnings. The Cost of Gender Inequality Notes Series. Washington, DC: World Bank. Accessed September 2019. https://openknowledge.worldbank.org/handle/10986/29865.
[17] FSM Department of Health and Social Affairs, Federated States of Micronesia Family Health and Safety Study: A prevalence study on violence against women. (2014).

goods and services and is therefore of critical importance to the country's economic development, as well as providing access to social services such as schools and health facilities. In addition, most of the population in FSM lives close to the coast, and critical infrastructure including roads, schools, places of employment, port facilities, tourist facilities, power plants and airports, are located primarily in the coastal zone. The road network in FSM is Government owned and maintained, and in general, there is only one circumferential route on the main island of each of the four FSM states. Road condition is mostly good to fair, with some sections of the network poor and very poor. Inadequate drainage and the insufficiency of routine maintenance are the main contributors to poor condition. Since there is generally only one circumferential route per island, even a few poor or very poor sections can severely interrupt the flow of people, goods, and services. Since the road network is not comprehensive (i.e. has limited to no redundancy) and is characterized by high rainfall and undulating terrain, reconstructed and rehabilitated roads should be designed, built, and maintained for all year-round access.

16. **Maintenance and Asset Management.** Ongoing management and maintenance of existing infrastructure is severely limited, largely attributed to a lack of proactive asset management and constrained budget allocations. Lack of preventative maintenance is expensive and can potentially put lives at risk as the deterioration of infrastructure and a reduction in service levels can reduce access to critical services (e.g. schools and, hospitals), reduce network safety and increase crashes, and prevent the further expansion of infrastructure services. In addition, it is also costly in a financial sense given preventative maintenance provides a better financial return than investments in new infrastructure.[18] For example, a least-cost analysis for sealed roads in Papua New Guinea found that the cost to the government of maintaining the road in a useable condition under a preventative maintenance strategy is four times less than under the build-neglect-rebuild scenario.[19] Though the importance of preventative maintenance is known, there has been little appetite for allocating sufficient and regular budget for this. Compounded with its vulnerability to extreme weather events and climate change, the road network is at the risk of rapid deterioration. As a result, the Prioritized Road Investment and Management Enhancements Project (PRIME) will assess current maintenance regimes and industry capacity and implement systems to move toward a more proactive preventative maintenance and rehabilitation program, which will replace the ad-hoc approach that is currently in place.

17. The remote geographical setting of FSM, increasingly harsh climatic conditions, the small populations of states, and unavailability of materials and equipment, all combine to make maintenance and management of infrastructure assets, and road sector assets in particular, a major challenge. Road works are undertaken by a mix of actors including state-owned enterprise, state road agency (via force account), as well as state-based and international private contractors. Like many SIDS, the development of the private contracting industry is curtailed primarily by a lack of reliable and sufficient funding for major works and maintenance. Force account is the primary mechanism used for routine and periodic maintenance. Routine and periodic maintenance of the sealed road network is ad-hoc at best, and non-existent at worst. Currently, only Kosrae has an inventory of its network drainage assets, and no state has an active network management system due to a lack of sufficient funding.

18. The sealed roads in FSM were originally asphalt-surfaced decades ago, with varying approaches to routine and periodic maintenance in each state:

[18] Pacific Region Infrastructure Facility (PRIF), *Infrastructure Maintenance in The Pacific - Challenging the Build-Neglect-Rebuild Paradigm,* (2013), *https://www.theprif.org/documents/regional/infrastructure-planning-and-management/infrastructure-maintenance-pacific*
[19] Ibid.

(a) Pohnpei – the Pohnpei Transportation Authority (PTA) is a state-owned enterprise that is responsible for road maintenance and management. It owns an asphalt plant, and aggregate is available from local quarries, so it has capacity, but lack of funding limits its ability to undertake routine maintenance of the network, or periodic maintenance through resurfacing.
(b) Kosrae – the original asphalt surface has been resurfaced on occasion with double seal surface dressing, with imported materials and equipment through an international contractor, but routine maintenance is limited to pothole patching by force account or through local contractors.
(c) Yap – a donor-funded project has rehabilitated an asphalt-surfaced part of the network, but the routine maintenance is done by force account. There is a privately-owned asphalt plant on the island; however, for major periodic maintenance interventions, there is a need for all materials and equipment to be imported.
(d) Chuuk – the original asphalt-surfaced network has all but disappeared through lack of maintenance and all recent road reconstruction is in concrete, either through local or international contractors. A local quarry provides concrete aggregate.

19. **Institutions and Functions.** Within the National Government, the Department of Transportation, Communications and Infrastructure (DoTC&I) has the responsibility for the delivery of infrastructure, including Compact projects, and similar agencies deliver infrastructure at the State level. Funding for road maintenance and capital road works is allocated annually by the National Government to State Governments. GoFSM has established a Central Implementation Unit (CIU) within the National Government's Department of Finance and Administration (DoFA), to support all World Bank-financed projects, including environmental and social management, procurement, and financial management support. DoTC&I has a Program Management Unit (PMU) that has responsibility for all Compact-funded infrastructure projects and for Overseas Development Assistance (ODA)-funded infrastructure projects (including the World Bank, Asian Development Bank [ADB], United States Federal Aviation Administration, People's Republic of China and the United Nations) except energy (managed by the Department of Resources and Development) and telecommunications (managed by the DoTC&I Communications Division). The primary focus of the PMU is on program management, with day-to-day project management tasks for ODA-projects devolved to Project Implementation Units (PIUs).

20. **Road safety**. FSM is one of the best performing countries in the East Asia and Pacific Region, with only two World Health Organization road fatalities estimated in 2016, and 30 serious injuries.[20,21] This result is achieved despite FSM having no road safety lead agency, national road safety strategy, or national road safety targets. There are no safety regulations restricting the import of new and used vehicles, no national seatbelt laws or blood alcohol concentration (BAC) based national drink driving laws.[22] Maximum speed limits for urban and rural roads are set to 40 kilometers/hour, which is likely a significant contributor to the low rate of fatalities and serious injuries.

C. Relevance to Higher Level Objectives

21. PRIME is closely aligned with the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity. PRIME will improve climate resilience and facilitate year-round access to critical

[20] World Health Organization, *Global Status Report on Road Safety 2018* (2018).
[21] Serious injuries have been calculated assuming a ratio of 15:1 (15 serious injuries for every death). World Bank, *Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles* (2019).
[22] World Bank, *Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles* (2019).

infrastructure and services, which is important for poverty alleviation given the evidence of a strong relationship between extreme poverty and lack of accessibility and mobility.

22. The World Bank Group RPF for FY17 to FY23 covers nine small Pacific Island Countries (PIC)[23] including FSM. The RPF identifies four areas of focus for these PIC9 as: (i) fully exploiting the available economic opportunities; (ii) enhancing access to economic opportunities for all; (iii) protecting incomes and livelihoods; and, (iv) strengthening the enablers of growth and opportunities (macro-economic management, infrastructure and addressing knowledge gaps). Investments in the road sector will help build resilience to extreme weather events and improve the reliability of the network. The proposed activities included within PRIME will contribute to enhancing access to employment opportunities and social services, which will help protect incomes and allow people to exploit available economic opportunities. Consistent with the World Bank Group COVID-19 Crisis Response Approach Paper, the World Bank's RPF in the PIC9 has been adjusted to align with the three phases of Relief, Restructuring, and Resilient Recovery. The FY21 pipeline was re-prioritized to free-up financing space for emergency health operations and DPOs (where appropriate). The pipeline for the remainder of IDA19 (FY22, FY23) is also being re-confirmed with clients in light of COVID-19.

23. Furthermore, investments and policy reforms to improve transport infrastructure are recognized as important National and State government priorities. PRIME is aligned with relevant strategies and prioritizations of the FSM Strategic Development Plan (2004-2023) and FSM Infrastructure Development Plan (IDP) FY2016-FY2025. The climate resilient infrastructure solutions proposed under PRIME are all identified as priority road and pedestrian projects in the IDP.

II. PROJECT DESCRIPTION

A. Project Development Objective (PDO)

24. **PDO Statement:** To improve the climate resilience of FSM's road network.

25. Progress will be measured against the following **PDO-level results indicators**:
    (a) Identified planning tools being used to improve climate resilience of roads (Number);
    (b) Length of road upgraded with climate resilience measures (Kilometers);
    (c) Number of water crossings reconstructed or rehabilitated with climate resilience measures (Number); and
    (d) Identified enabling environment solutions implemented (Number).

B. Project Components

26. **Pacific Climate Resilient Transport Program (PCRTP) Series of Projects (SOP).** PRIME will be included within PCRTP, which has four broad pillars that focus on increasing resilience in the transport sector through: (i) utilizing spatial and sector planning tools; (ii) investing in climate resilient infrastructure; (iii) strengthening the enabling environment; and (iv) supporting post-disaster recovery. The activities proposed under PRIME

[23] Kiribati, Republic of Nauru, RMI, FSM, Republic of Palau, Independent State of Samoa, Kingdom of Tonga, Tuvalu and Vanuatu; World Bank Group, *Regional Partnership Framework FY17-21*, Report No. 120479, World Bank, (2016).

are aligned with these four broad pillars of support.[24] The value of the programmatic approach is that it will support the systematic improvement of resilience across the countries included within the program to address commonly shared issues. In addition, the program offers a multi-pronged approach to support FSM by considering risks in a holistic manner, through the integration of resilient transport interventions into decision-making and implementation. More detailed descriptions for each of the PRIME components are in Annex 2, and more detailed description of the SOP pillars are in Annex 4.

27. **Component 1: Spatial and Sector Planning Tools (US$1.5 million).** This Component involves technical assistance for sectoral and spatial planning tools that will improve the way that climate change is addressed in FSM's road sector to enable policymakers to make informed decisions based on the most accurate and up-to-date information available. Component 1 is split into two Sub-components:
    (a) Vulnerability Assessment (VA) and Climate Resilient Road Strategy (CRRS). Preparation, implementation and updating of a road sector VA and a CRRS to assess levels of vulnerability to climate change and severe weather events (e.g. sea-level rise, extreme rainfall, landslide, storm surge, etc.) across FSM's existing primary road corridors and GoFSM-selected existing strategic secondary road corridors. The VA and CRRS will also identify measures to enhance resilience and prioritize investments to balance vulnerability reduction against cost implication. Training will be provided to relevant national and state officials in the use of VA and CRRS tools.
    (b) Climate-informed road asset management system. Provision of hardware, software and ancillary tools to establish and maintain a climate-informed road asset management system to be used by DoTC&I and the State Governments' respective transport agencies. Training will be provided to relevant National and State officials in the use of the system.

28. **Component 2: Climate Resilient Infrastructure Solutions (US$34 million).** This Component involves feasibility studies, design and construction of identified priority road assets to improve their resilience to climate-related hazards. The integration of climate change considerations into infrastructure activities will help strengthen the resilience of assets and improve functionality of the road network. Component 2 is split into two Sub-components:
    (a) Urgent priority works (including design and supervision). Critical climate resilient road, bridge, causeway and drainage improvement works that should be implemented urgently to maintain a basic level of road connectivity in each state. Urgent works proposed for financing under PRIME include: (i) improving the narrow, low-level Lelu causeway in Kosrae; (ii) replacing the 12-meter Awak bridge in Pohnpei; (iii) improving the 1.5-kilometer airport to Pou Bay bridge road in Chuuk; and (iv) replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap.
    (b) Works informed by the VA and CRRS (including design and supervision). In addition to the urgent priorities under Sub-component 2a, a selection of near, medium and long-term road works would be financed to enhance the resilience of the network in each state to climate change impacts and natural hazards, as to be agreed by FSM and the World Bank based on the recommendations from the VA and CRRS undertaken as part of Component 1. Works will be restricted to road networks within the existing primary road corridors. Interventions will include measures to strengthen network resilience including, but not necessarily limited to: pavement strengthening, drainage improvements, spot slope stabilization, rock wall revetment strengthening, road safety improvements and other improvements to causeways

[24] Component 4 in PCRTP SOP projects is commonly a 'Contingent Emergency Response Component' (CERC). A CERC was not included in PRIME given that FSM already has a CERC in place (under FSMIP) that can be used to support emergency repairs to infrastructure in the event of a disaster event.

and bridges.

29. **Component 3: Strengthening the Enabling Environment (US$4.5 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 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 GoFSM in addressing climate change risks. Component 3 is split into six Sub-components:
    (a) Institutional and Governance Review. A review of institutional arrangements, key policies, regulations, legislation, financing mechanisms and roles and responsibilities of principle stakeholders involved in the road sector with recommendations to strengthen such arrangements.
    (b) Project Management. Provision of technical and operational assistance to FSM on project management and implementation. This Sub-component will support the establishment and maintenance of a PIU to support the implementation of PRIME. This includes operating costs for PRIME-related travel and communications costs. Additionally, this Sub-component includes the provision of technical assistance activities to assess environmental and social risks and impacts and prepare environmental and social instruments that enhance the sustainability of PRIME's climate resilient road sector activities in accordance with the World Bank Environmental and Social Framework (ESF) and the laws and policies of FSM.
    (c) Road Safety Program. Provision of technical assistance activities including road safety audits and diagnostics to improve road safety of a more climate resilient road network.
    (d) Capacity Building Initiatives. This Sub-component aims to improve the planning, management, and regulation of FSM's climate resilient road network, and provide support to address employment gaps between men and women and potential SEA and SH related to Project implementation. In particular, the assessment of current preventive maintenance techniques and industry capacity will be conducted. Technical trainings will also be provided to sector agencies and local consultants and contractors to better operate and regulate a more climate resilient road network. A focus of the training segment will be upskilling women for technical careers at DoTC&I and at the State Governments' respective transport agencies, complemented by an investigation into the barriers[25] women may face in the sector and current work environment dynamics that may hinder progress on gender equality. Actions will also include a focus on human resource (HR) reforms at DoTC&I and State Governments' respective transport agencies to improve the recruitment, retention and advancement of women in the transport sector.
    (e) Driver Licensing Pilot. A pilot program to study and implement activities that address gaps in the possession of a driver's license. A beneficiary survey will be undertaken that includes a focus on gender and persons with disabilities, that will help assess the impacts of the major climate resilient works carried

[25] During the school-to-work transition, information asymmetries and legal barriers may limit the share of young women who enter infrastructure industries or occupy certain types of roles. Biases among employers also present barricades. Employers often hold biases about "masculine" and "feminine" work roles, as evidenced in prejudicial interview questions, or expectations about women's future childcare or care responsibilities; this too may keep qualified women from being hired for technical jobs. Even when they are hired, women are likely to face additional challenges that may cause them to leave the sector. These challenges include time-intensive work pressures with limited flexibility; unwelcoming work environments; the biases of coworkers; and the risks of gender wage gaps, unaccommodating workplace facilities, and sexual harassment. Finally, as they progress in their careers, in addition to facing discrimination, additional institutional barriers—such as a lack of mentors, sponsors, professional networks, and quality training—can also limit the advancement of women. Taken from Schomer, Inka and Hammond, Alicia, "Stepping Up Women's STEM Careers in Infrastructure: An Overview of Promising Approaches" ESMAP Paper. Washington, D.C.: World Bank (2020).

out under the Project and inform the driver licensing pilot focused on closing gaps for women and persons with disabilities.

(f) Emerging Priority Issues. Provision of 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.

C. Project Beneficiaries

30. The entire FSM population residing on the islands subject to road improvement, 63,120 (or 55 percent of the total population in 2020), are regarded as beneficiaries of this Project. The physical improvements to the primary road networks and the robust package of technical assistance supporting all states will make road travel safer and more reliable for all road users.

31. **Persons with disabilities.** Road safety access audits will be undertaken (Sub-component 3c) to inform the design of roads and bridges under PRIME to better consider the needs of persons with disabilities. The incorporation of accessibility features, such as ramps and appropriate signage, will help ensure inclusion for all users of the road network.

32. **Gender.** PRIME will address three gender-focused issues in support of Project beneficiaries including addressing the gender gap in driver licensing; exploring technical employment opportunities for women; and preventing mitigating and addressing risks of SEA and SH related to the Project.

(a) **Gender gap in driver licensing.** Licensing has been identified as a gender gap issue within the transport sector. GoFSM licensing data[26] indicates that roughly 68 percent of license holders are men while only 32 percent are women. 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, and limit mobility options when their area is affected by natural disasters or severe weather events. 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. 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). Several actions to address the gap in license ownership will be included within PRIME:

(i) **A beneficiary survey** will be conducted to identify the barriers to women owning driver's licenses and strategies to increase women's ownership of driver's licenses. The survey will be carried out in all four states and will also seek to understand barriers to women utilizing their driver's licenses including where these relate to gender norms and roles. 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

[26] Based on an available three-year period (2018-20 for Kosrae, Chuuk and Yap; and 2016-2018 for Pohnpei).

licensing would have on empowerment, education and health; and, (iii) community resilience through evaluating the impact on households' options responding to emergency events such as natural disasters. The beneficiary survey will be carried out in all four states as it will also provide information that will help assess the impacts of the major climate resilient works carried out on Project beneficiaries.

(ii) **A licensing pilot** based on the outcome of the beneficiary survey findings will take place in the form of: (i) a driver's education/safety course and outreach program on licensing will be organized for women in all four states; (ii) for the first round of participants, the fee of the driver license will be waived by the relevant State Transportation Agency 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 Licensing Division to upskill staff engaged on the pilot program. It is proposed to carry out these actions in all four states.

(iii) In the **Results Framework**, an indicator will track changes in new driver's license registration by men and women to show an increase in the percentage of women who have acquired a license relative to men and compared to previous years, thereby demonstrating a reduction in the identified gender gap. PRIME will target and measure in the results framework the reduction in the gap by 3.0 percentage points. This target is conservative given this is a pilot program for a complex issue that has not been previously addressed in FSM and first requires study through the beneficiary survey to ensure that the activities planned under the licensing pilot are designed bespoke for the target beneficiaries' needs.

(b) **Technical employment opportunities for women.** Currently women are very underrepresented in technical positions at DoTC&I and the State transport agencies[27] and PRIME aims to decrease the gap between men and women in technical roles by 15 percentage points. This will be achieved through a focus in the training segment on upskilling women for technical careers working in the road sector in DoTC&I and the State transport agencies, complemented by an investigation into the barriers women may face in the sector and current work environment dynamics that may hinder progress on gender equality. Actions will also include a focus on HR reforms at DoTC&I and the State transport agencies to improve the recruitment, retention and advancement of women.

(c) **SEA and SH.** The Project was screened using the World Bank's 'Gender-Based Violence (GBV) Risk Assessment Tool' and was classified within the "Moderate Risk" category. *In line with the World Bank's Good Practice Note: Addressing SEA and SH in Investment Project Financing involving Major Civil Works*,[28] PRIME will undertake actions to prevent, mitigate and address risks of SEA and SH related to the Project:

(i) GBV service providers, who practice a survivor-centered approach and are accessible at each Project site, will be identified to refer survivors of GBV if a complaint is made to the Project. Though PRIME is not required to provide services, the Project will include financing to resource GBV service providers given the limited number of GBV services in FSM. This will help ensure that should there be any reports of SEA or SH to the Project, there will be services available for referral. Under FSMIP, a Needs Assessment on GBV is being undertaken to identify the availability of services, and the recommendations will be used to inform PRIME with regards to supporting local GBV service providers. In addition, a World Bank portfolio-wide SEA and SH assessment is planned to be

[27] There are currently 183 employees in technical roles and only one of these is female.

[28] World Bank, Good Practice Note: Addressing Sexual Exploitation and Abuse and Sexual Harassment in Investment Project Financing involving Major Civil Works (2020) http://pubdocs.worldbank.org/en/632511583165318586/ESF-GPN-SEASH-in-major-civil-works.pdf

undertaken.

(ii) A specific Grievance Mechanism (GM) pathway will be established for SEA and SH complaints to ensure survivor-centered approaches are applied, including the involvement of local GBV service providers.

(iii) All Project workers will sign a Codes of Conduct that specifically prohibits SEA and SH and complete training on the SEA and SH components of the Code of Conduct (see associated indicator in the results framework).

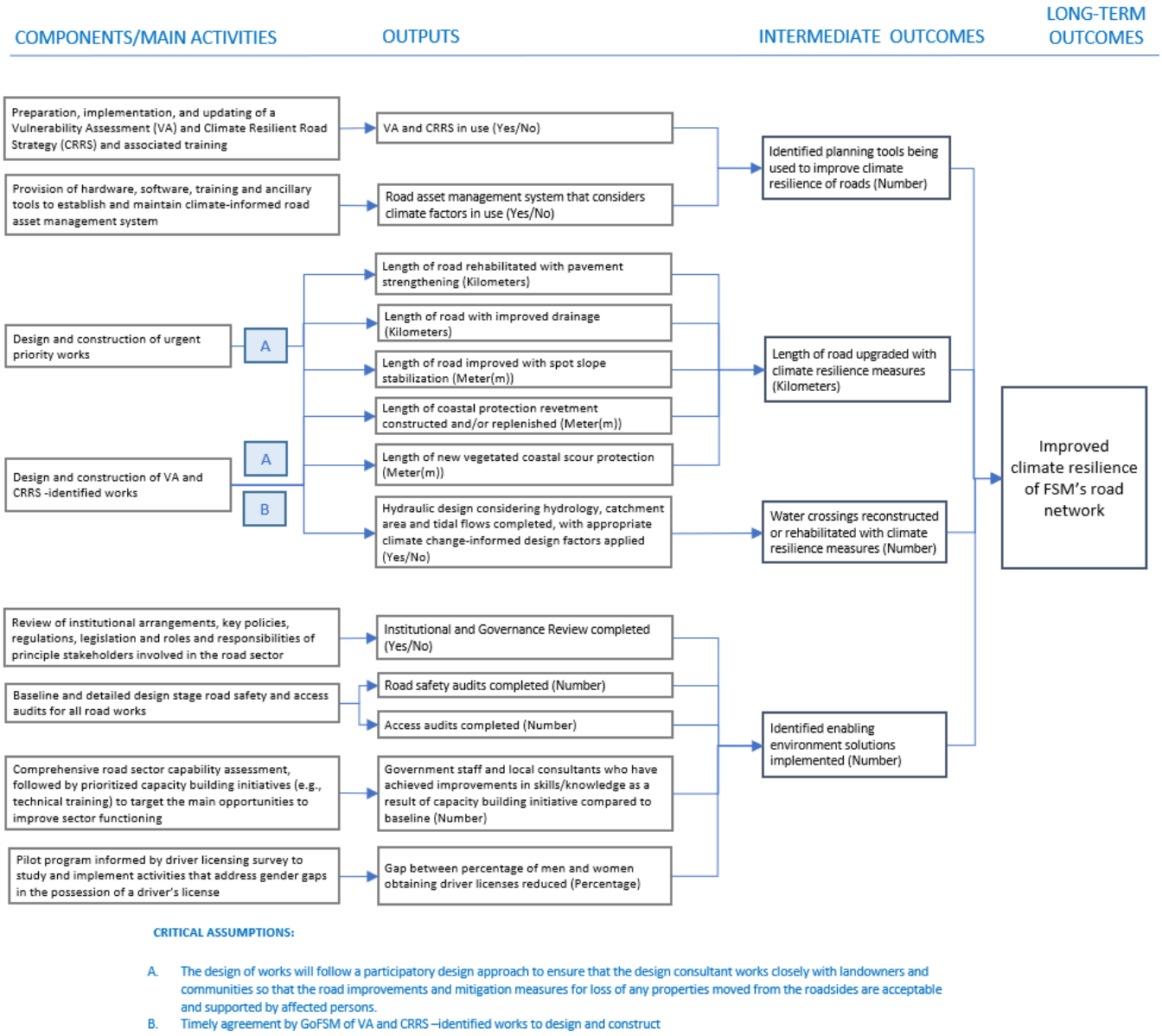
(iv) Information, Education, Communication (IEC) materials will be displayed in worksites and Project-affected communities on the Code of Conduct.

(v) Awareness raising will be conducted with the communities around the Project site to ensure that they understand the Code of Conduct, know how to report SEA and SH-related to the Project and know how to access GBV services.

D. Results Chain

33. The Results Chain outlining the activities of the program is included in Figure 1.

Figure 1. Results Chain



E. Rationale for World Bank Involvement and Role of Partners

34. **Rationale for World Bank Involvement.** The road network in FSM is extremely vulnerable to climate change and natural disasters, such as landslides, flooding and coastal inundation, making reliable transport even more critical in the event of a natural disaster. The availability of efficient, reliable, safe and affordable transport services is considered essential for the country's basic economic and social functions, for achieving FSM's

national development plans, and enhancing resilience to the impacts of climate change. Investments under PRIME are designed to improve the safety, resilience, and efficiency of road services, which will help sustain the delivery of basic goods and access to critical services.

35. The World Bank has supported resilience-focused projects across sectors in Pacific SIDS in line with the Small Islands States Resilience Initiative, which draws on the experience of Global Facility for Disaster Reduction and Recovery (GFDRR) members. In addition, the World Bank has considerable Pacific experience in the transport sector including, but not limited to: supporting clients' infrastructure investment and upstream analytics, and advising on institutional and regulatory strengthening measures. This includes the resilience-focused PCRTP SOP, which now has active projects in Kiribati, Samoa, Tonga, Tuvalu and Vanuatu, with additional projects soon to follow for Papua New Guinea and again in Tonga and Samoa. PRIME will be included within the larger PCRTP SOP and will benefit from lessons learned from other projects already under implementation. PRIME is aligned with the overall objective of other PCRTP projects by adopting a common approach to improving the resilience of the transport sector. Specifically, PRIME includes the following activities: (i) using planning tools to improve the climate resilience of the road sector; (ii) constructing climate resilient road investments; and (iii) strengthening the enabling environment by improving the capacity of GoFSM to manage a more climate resilient road sector.

36. The World Bank's engagement in the FSM transport sector adds value in several ways, including: (i) bringing global experience of road infrastructure investments and associated technical assistance – particularly around enhancing resilience to the impacts of climate change; (ii) participating further in sector-related donor coordination; (iii) providing best practices in climate resilient transport solutions; (iv) integrating road safety assessments into design, and, (v) helping the government address environmental and social management issues, including mitigating risks of SEA and SH related to the Project and reducing gender inequalities. Transferring this expertise will be key to supporting the GoFSM to prepare and implement the proposed Project efficiently and effectively.

37. Private sector financing is not available to undertake a road sector project of this nature in FSM. Public sector financing is the appropriate vehicle for financing the proposed road works because the construction costs cannot be recovered through tariffs.

38. **Role of Partners.** The GoFSM has received recent assistance from and is preparing new projects with various donors for investments in the road sector including the U.S. Government, the International Organization for Migration (IOM), the Asian Development Bank (ADB), the Government of the People's Republic of China (GoPRC) and the Japan International Cooperation Agency (JICA).

    (a) **U.S. Government.** The U.S. Government provides funding for infrastructure projects under the Compact. However, the focus is on social infrastructure and, at present, there are no projects in the roads sector. The State of Kosrae is preparing an application for funding under the Compact to upgrade the Mutunennea to Sialat Inner Road (about 3 miles) to support heavy traffic associated with a water bottling factory to be re-activated and expanded under an agreement that has been signed between the Government of Kosrae and a private company. The funding request is expected to be about US$4.0 million.

    (b) **IOM.** In March 2018, the State of Pohnpei experienced heavy rains, landslides and floods which resulted

in substantial damage to the road infrastructure. In response, IOM, in partnership with the United States Agency for International Development (USAID) supported the rehabilitation of roads, bridges and culverts. A total of eighteen sub-projects were implemented with a total cost of US$4.0 million. The project was completed in July 2020.

(c) **ADB.** Consultations are in progress between GoFSM and the ADB on a possible road improvement project. A concept note on this potential project is being prepared by GoFSM for consideration by the ADB.

(d) **GoPRC.** GoPRC has been providing development assistance for the improvement of road infrastructure in the FSM since 2012. The Okat Bridge in Kosrae was the first major road infrastructure project in the FSM funded by GoPRC. The Okat Bridge, with a length of approximately 96 meters, was completed in 2015 and was funded through a grant of approximately US$9.0 million. A second bridge (the Kahmar Bridge in Pohnpei) has recently been completed and was handed over in August 2020. The Kahmar Bridge has a length of approximately 57 meters and was funded through a grant of approximately US$3.2 million. In addition to the two bridges, GoPRC is also supporting the design and construction of 5.2 miles of secondary roads in Pohnpei with a grant of approximately US$13.3 million. This project is expected to be completed in FY21.

F. Lessons Learned and Reflected in the Project Design

39. **Project designed following simplified and phased approach.** The World Bank has gained considerable experience in strengthening transport infrastructure and in responding to and building resilience against natural disasters in small island states in the Pacific. Lessons from engagements elsewhere include the need for a simple phased approach, whereby the most basic infrastructure shortcomings are addressed up front, while building the local capacity to plan and manage rehabilitation and maintenance. The adequacy of laws, regulations and institutional capacity often needs to be assessed, with analytical work carried out early on to identify shortcomings and recommend options for their resolution and strengthening in the longer term. PRIME has been designed to address both aspects – urgent road improvements required to maintain a basic level of road connectivity and safety for the main island of each state, followed by a program of prioritized roadworks to enhance the resilience of each state network; and a review of institutional and governance structures.

40. **Conservative cost contingencies incorporated into the project design.** The remoteness and dispersion of many PICs has a significant, and sometimes unpredictable, impact on costs.[29] Lessons learned from other World Bank-supported projects in small island states in the Pacific, such as Kiribati, have shown that cost contingencies should be factored into project design, where feasible. For PRIME, the estimated costs in this Project Appraisal Document (PAD) are based on preliminary assessments of the scope of works and services to be undertaken in each Sub-component and are subject to further refinement in the scope and design, including following the outcome of the VA and CRRS that informs Component 2, and that precede the detailed design. Consequently, cost estimates include price and physical contingencies. In addition, the VA and CRRS will prioritize activities taking into consideration the PRIME budget and economic evaluation in addition to other factors.

41. **Capacity limitations in FSM acknowledged and incorporated into project planning.** Experience from other World Bank-supported projects in SIDS in the Pacific have highlighted key considerations around capacity

[29] World Bank, *Implementation Completion and Results Report for the Kiribati Road Rehabilitation Project*, Report No, ICR00004673, (2019).

limitations, including the need for realistic timelines, limited capacity of local project implementation teams, and the need for intensive implementation support.[30] Though DoTC&I has experience with World Bank-supported projects, including through the ongoing FSMIP, PRIME is the first World Bank-supported road project in FSM, and likely risks need to be mitigated. For example, there are often delays in importing materials and civil works contracts should anticipate a "time" contingency in the implementation schedule. Secondly, the success of a project is also dependent on the PIU and the PIU Project Manager. CIU staff will provide support to the PIU drawing on lessons from other World Bank projects under implementation. Lastly, an increased level of CIU and World Bank support during the first two years of implementation is also anticipated, given that this will be the first project in the road sector.

42. **Complementary capacity building functions by CIU embedded in design.** Experience from other FSM projects indicates that the burden of carrying out donor-financed projects often rests on one or two overworked individuals in relevant implementing agency(ies) (IAs). Avoiding overburdening existing implementation capacity has become an ongoing priority of World Bank projects in FSM, along with ensuring that sufficient capacity is available for proper design and implementation of each project. To address this problem, FSM has established a CIU, to support all World Bank-financed projects. Staff in the CIU will support, advise, and guide the national and state agencies as they proceed to carry out PRIME project implementation functions.

43. **Programmatic Preparation Advance (PPA) provided to support implementation readiness.** Implementation is often slow to begin in PICs due to difficulties in recruiting key personnel; lack of familiarity with preparing procurement, safeguards and operational documents; and difficulties in carrying out needs assessment and estimating costs. For FSM projects, delays in developing core safeguards instruments, delays in procurement and poor contract management have been recurring problems. To mitigate these delays, PRIME utilized the FSM PPA to provide the financial means to jump-start project preparation. Under PRIME, key preparatory activities financed under the PPA include: (i) preparation of the VA and CRRS; (ii) preparation of the safeguard documentation; (iii) hiring of a Project Manager; (iv) Road Safety Audit consultancy; and (v) design services for priority works.

44. **Coordination among the National Government, four States and departments**. PRIME is designed to work with the National Government and with each of the four State Governments. Each state has its own transport agency. Experience from the existing FSMIP suggests that ensuring the appropriate representation of all parties in the Project Steering Committee (PSC) will be critical for success (refer to Annex 1: Implementation Arrangements and Support Plan for more information on the PSC).

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

45. DoTC&I will be the IA of the Project. As PRIME roads fall under the jurisdiction of the relevant State Governments, Project Implementation Agreements (PIAs) with each of the States will be required. For FSMIP, and other World Bank projects in FSM, PIAs or similar have been utilized, where the World Bank has signed a Financing Agreement with DoFA; and DoTC&I, as the IA, has entered into separate PIAs with the State agencies. Under this arrangement, which is also proposed for PRIME, signed procurement contracts will be between the

[30] Ibid.

National Government and the contractors. These PIAs provide greater clarity regarding the expected roles, responsibilities and accountabilities, and create binding contractual relationships between the National Government and the State agencies. The State agencies will also appoint local coordinators to manage state-specific activities under PRIME. To ensure the four States are adequately represented in decision making, a PSC will be established similar to FSMIP.

46. The two existing implementation units (CIU and DoTC&I PMU) are relatively young and are performing competently. PRIME will establish a PIU which will be a sub-unit of the DoTC&I PMU, similar to the FSMIP PIU, and will run in parallel to the FSMIP PIU. Initially, the PIU will be staffed with a PIU Project Manager, based in Pohnpei, with additional PIU project management support to be recruited, as needed. Experience from other World Bank-supported projects in PICs have highlighted key considerations around capacity limitations, including the need for realistic timelines, limited capacity of local project implementation teams, and the need for intensive World Bank implementation support.

47. **PIU Implementation Support.** The PIU, which will be established by not later than three months after the effective date of the Financing Agreement, will be responsible for day to day management and implementation of the Project. The PIU will coordinate the implementation of PRIME with DoTC&I management, DoTC&I PMU, CIU, State focal points, and the State transport agencies in a manner that is to be set forth in the PIAs that outlines the roles of each organization. The PIU will also be responsible for preparing and implementing PRIME in accordance with annual work plans and budgets, which are to be prepared by not later than four months after the effective date of the Financing Agreement and July 1 of each subsequent year during project implementation and which will detail PRIME's activities and eligible expenditures. The PIAs will clarify, among other things, the necessary state and intra-government cooperation and support necessary for PRIME. The Project Manager, who leads the PIU, will be responsible for working collaboratively with all stakeholders to facilitate implementation by providing technical support and by working with the CIU to facilitate the procurement, budgeting and work programming process. The PIU will also comprise, at a minimum, a Project Officer, and will be supported by specialists from the CIU.

48. **CIU Implementation Support.** The already established CIU, within DoFA, is a functional unit that supports the implementation of the World Bank portfolio. The World Bank portfolio in FSM has grown quickly and is anticipated to expand even further over the next few years. GoFSM identified the need for strong implementation of the World Bank portfolio and to look for ways to maximize efficiencies. The CIU provides support on core implementation functions needed for all projects. Under PRIME, the CIU will provide project implementation support to the IA and include staff performing the following key functions in support of the Project: project management, procurement, financial management, social and environmental standards, monitoring and evaluation, as well as outreach and communications. The individuals responsible for these functions report to the CIU Program Manager and provide services and hands on support to the IA for preparation, implementation, and capacity building activities. Project implementation responsibilities however remains with the IA.

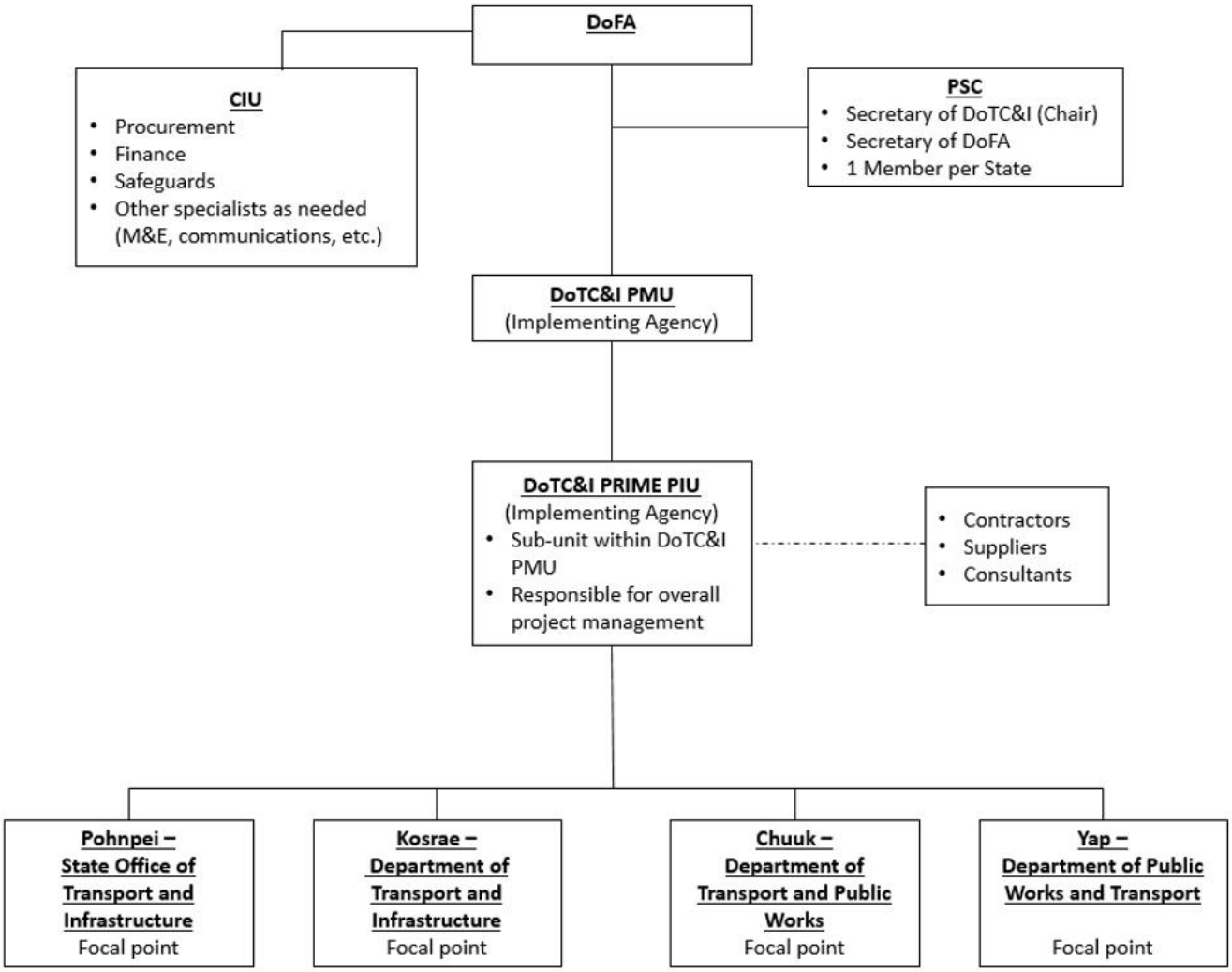
49. **Role of DoTC&I and States with respect to contract signing and invoicing.** All contracts with consultants, contractors and suppliers will be signed by the DoTC&I Secretary, with the administration and contract management tasks of the contract being implemented by the PIU as their day to day responsibility. DoTC&I Secretary will sign off on all consultant and contractor invoices and authorize CIU to make payments. However, before doing so, the PIU will consult with each State focal point to ensure services and works have been

completed and are satisfactory, where necessary.

50. **Role and Composition of the PSC.** To ensure the four states are adequately represented in decision making, a PSC will be established and chaired by DoTC&I by not later than three months after the effective date of the Financing Agreement. The Secretary of DoFA or designee will be a member, along with a member appointed by the Governor of each of the four states. The PSC will provide general oversight and policy direction to PRIME stakeholders during project implementation, convene key stakeholders in the event of disagreement, and periodically review project progress. The PSC will have a role in identifying priorities for allocating project funds after the completion of the VA and CRRS. Further details of the PSC will be reflected in the Project Implementation Agreements and the Project Operations Manual (POM).

The proposed implementation arrangements are depicted in Figure 2 below:

Figure 2. PRIME Implementation Arrangements



B. Results Monitoring and Evaluation (M&E) Arrangements

51. Project M&E will be conducted via periodic monitoring through semesterly reports that track progress in terms of distribution of inputs, disbursement of funds, and achievement of targeted indicators as outlined in the Results Framework (Section VI). The PIU will be responsible for M&E against agreed indicators as presented in the Results Framework, including the provision of timely monitoring reports with operational data, with support from the CIU where required. Each project report will be submitted to the World Bank not later than one month after the end of each semester. The Project will utilize field-appropriate digital tools for collection, and analysis of geo-tagged data will be used for example through the World Bank Geo-Enabling Initiative for Monitoring and Supervision (GEMS) information and communications technology capacity-building approach, or something similar.

C. Sustainability

52. PRIME aims to enhance the sustainability of road assets through:
    (a) Careful design and specification of the road and bridge sub-projects that will minimize routine maintenance – e.g. use of rigid pavements and surfacing where appropriate, climate change informed design specifications for pavement, surfacing and drainage;
    (b) Development and establishment of a simple asset management system at the national and state level, combined with provision of condition data and traffic measuring tools to enable transport agencies to monitor road condition, prepare effective annual work plans, and submit accurate annual maintenance budgets to state and national parliaments;
    (c) Training and capacity building for technical and managerial staff at national and state level implementing institutions covering the operation of the asset management system and effective routine and periodic maintenance methodologies for the assets being managed;
    (d) Knowledge transfer to decision-makers on the critical importance of providing sufficient and predictable annual funding for routine and periodic maintenance to avoid the premature deterioration of valuable assets; and
    (e) The Institutional and Governance Review activity (Sub-component 3a), which will recommend financing mechanisms for sustainable periodic and routine maintenance after a proper diagnostic assessment of the core issues is undertaken. Based on the technical recommendations from the Review, additional technical assistance may be developed through the Emerging Priorities activity (Sub-component 3f) to help GoFSM implement actions that help address the financing challenge.

IV. PROJECT APPRAISAL SUMMARY

A. Technical and Economic Analysis

53. **Technical Analysis.** The technical solutions proposed involve the design and construction of works, and the provision of software and hardware, all based on tried and tested technology that will be adapted to suit local FSM conditions. The recommendations of the VA and CRRS will provide further guidance on PRIME's technical design. Under Component 1, technical work by specialist consultants and GoFSM counterparts will focus on developing sectoral and spatial planning tools, which will enable policymakers to make informed decisions on

the road sector based on the most accurate and up-to-date information. Two key activities are:

(a) Preparation and implementation of the VA and CRRS to assess levels of vulnerability to climate change and severe weather events across FSM's existing primary road corridors and GoFSM-selected existing strategic secondary road corridors, and to identify measures to enhance resilience and prioritize investments.

(b) Establishment and operation of the climate-informed road asset management system.[31]

54. The road asset management system and associated road maintenance capacity building activities will introduce a more systematic approach to identifying, planning, contracting and monitoring the effectiveness of a periodic maintenance (resurfacing) and rehabilitation program across the four states. Having a robust, evidence-based preventative maintenance program will enable GoFSM to better understand its funding obligations to ensure sustainable revenue streams are put in place.

55. PRIME will make significant investments in a range of climate resilient infrastructure solutions under Component 2. Design of civil works will conform to international design codes of practice such as *Austroads* for road and bridge 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.[32] Investments will combine identified urgent works in each state with the recommended priorities from the VA and CRRS. Activities will involve the investigation, design and construction of priority road sector assets to improve their resilience to climate-related hazards and/or events. Along vulnerable sections of coastal roads, these are likely to include raising the road level, strengthening the road profile, and improvements to longitudinal and cross drainage, with slope stabilization and drainage improvements on critical inland road sections. River crossing improvements will be achieved at vulnerable sites through repair or replacement of bridges, working within corridors of existing primary roads.

56. The urgent works already identified in Component 2 comprise three bridge replacements, a 700-meter causeway renovation and a 2-kilometer road improvement. All of these works are located close to shorelines so their design will incorporate careful assessment of the current and expected climatic and environmental conditions, to ensure the assets will be resilient throughout their design life.

57. **Economic Analysis.** As a small island state, FSM has large needs for support in making its infrastructure more resilient to climate change and natural disasters. Roads are among the most vulnerable infrastructure assets, and severe damage to networks can have disruptive effects for all users, including a loss of access to other critical infrastructure (e.g. hospitals, schools, port facilities, power plants, and airports) and services. To address this challenge, PRIME aims to finance activities to systematically improve the resilience of the FSM primary road network to natural hazards and climate change. In addition, by supporting safer and more reliable road transport infrastructure, the livelihoods and quality of life of FSM citizens will be improved. The social benefits of an improved road network include reduced travel times to reach schools, health, and other public service centers; expanded access to markets and work opportunities; reduced risk that connectivity is affected during or after severe weather events through enhanced resilience; and improved road safety. Periodic and routine

[31] No state currently has an active network management system.

[32] A recent World Bank study has found that there is substantial promise for concrete pavements to be used for low-volume (<400 vehicles a day) roads in Pacific Island Countries. The report considers the strengths, weaknesses, and operations and maintenance implications of four different types of concrete pavement. Refer to Johnson, Sam; Faiz, Asif; Visser, Alex. *Concrete Pavements for Climate Resilient Low-Volume Roads in Pacific Island Countries,* (World Bank, 2019).

road maintenance are the key tools to overcome the tradition of the build-neglect-rebuild scenario.

58. The economic analysis was conducted based on a standard methodology applied for appraisal of infrastructure works, which demonstrates the overall economic internal rate of return (EIRR) of 84.1 percent and Net Present Value (NPV) US$89.08 million. The economic evaluation focuses on Component 2, which has two major Sub-components: (a) critical climate resilient road, bridge or drainage improvement works that should be implemented urgently to maintain a basic level of road connectivity in each state; and, (b) a selection of near, medium, and long-term road works in accordance with the recommendations from the VA and CRRS.

59. A Cost-Benefit Analysis (CBA) was conducted to calculate the EIRR and the NPV of PRIME covering a period of 20 years (2021-2041). The discount rate is assumed to be 7 percent, and standard conversion factor of 0.85. The major economic benefits of Sub-component 2a arise from: (a) reduced disruption from failing infrastructures for each state; (b) avoided major disruption or catastrophic incidence due to infrastructure failure; (c) avoided rehabilitation or reconstruction cost in the foreseeable future; and (d) road accident reduction.[33]

60. Key benefits for Sub-component 2b are the same as those (a-d) noted above for Sub-component 2a, as well as (e) vehicle operating cost (VOC) savings; (f) travel time savings; and (g) avoided emergency maintenance and reconstruction. The analysis adapts an HDM-4 model to calculate the vehicle operating costs under different levels of road condition to determine VOC savings – which is estimated to be about US$0.0445 per vehicle-kilometer. The time savings are calculated from improving average speed (from current average of 30 kilometers/hour to around 32 kilometers/hour, depending on the road section). The avoided emergency repairs and reconstruction costs are estimated based on civil works costs in FSM. A sensitivity analysis was also performed to assess the rebatement of economic benefits in different cost increase and traffic variation scenarios (Table 1; Figure 3.1 and 3.2).

Table 1: CBA Results and Sensitivity Analysis

Scenarios	Sub-component 2a		Sub-component 2b		TOTAL	
	EIRR	NPV ($m)	EIRR	NPV ($m)	EIRR	NPV ($m)
Base case	92.9%	59.38	40.4%	29.69	84.1%	89.08
Investment cost increases by 20%	80.7%	57.16	34.7%	27.63	71.5%	84.79
Benefits are 20% lower than expected	78.1%	45.29	33.5%	21.69	68.8%	66.98
Annual traffic growth is 0% (from 0.24%)	92.3%	58.87	40.4%	29.69	83.5%	88.56
Both investment costs increase by 20% and benefits are 20% lower than expected	67.0%	43.07	28.3%	19.63	57.5%	62.69

[33] Calculated using the World Bank Road Safety Screening and Appraisal Tool (RSSAT).

Figure 3.1: EIRR's sensitivity to Component 2a's infrastructure failure timing

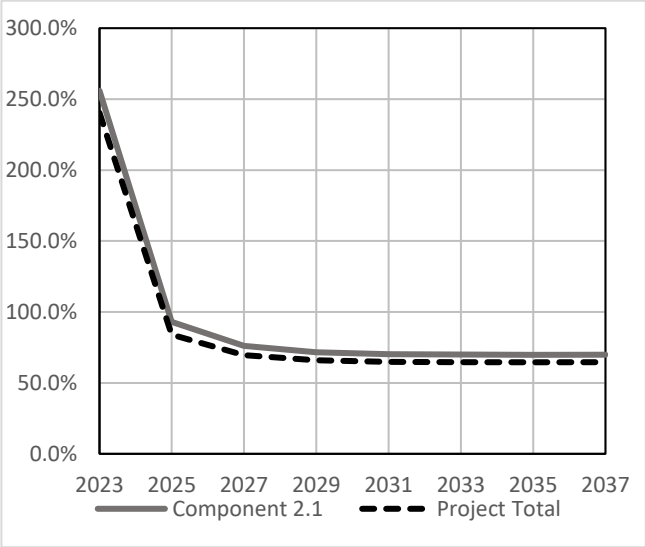
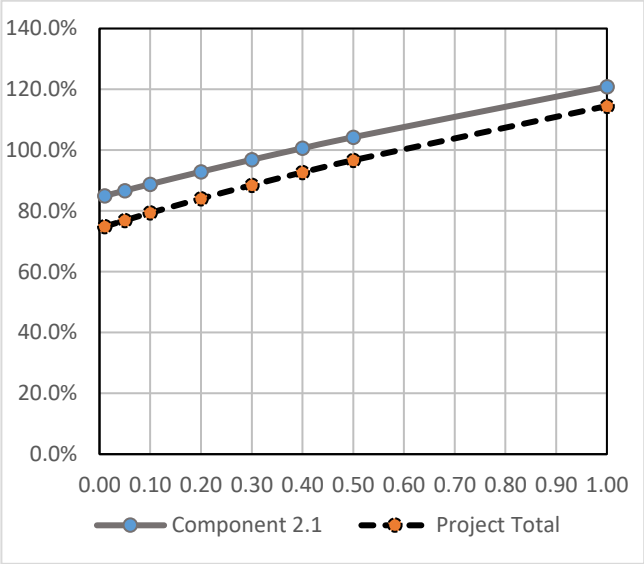


Figure 3.2: EIRR's sensitivity to the severity of infrastructure failure



61. **A separate road safety impact appraisal was conducted using the RSSAT.** The Project is expected to reduce the fatalities and serious injuries by about 45 percent per year through road infrastructure enhancements. The overall road safety benefits are estimated to be over US$49 million during the infrastructure lifecycle of 20 years.

62. **Greenhouse gas (GHG) emissions.** An analysis of GHG emissions was undertaken based on the fuel consumption rate at different speeds under with-project and without-project scenarios. Without PRIME, the roads' deteriorated condition limits vehicle speed and leads to higher fuel consumption per vehicle-kilometer compared to the with-project scenario. With PRIME, improved road condition leads to improved speed, and hence lower fuel consumption. Gross GHG emission under the with-project scenario is estimated to be 30,022 tCO_2e. Total Net GHG emission is estimated to be -730 tCO_2e, a net reduction over the evaluation period (20 years). The Annual Average Net GHG emission is -36 tCO_2e/year. The social benefit from GHG reduction is estimated to be US$67,123 based on the social cost of emission reduction from the World Bank's Guidance Note on Shadow Price of Carbon in Economic Analysis.[34]

B. Fiduciary

63. **Financial Management (FM).** An FM assessment was carried out in accordance with the *Principles Based Financial Management Practice Manual* issued by the World Bank on February 4, 2015, and as further elaborated in the World Bank Guidance *Financial Management in World Bank-Financed Investment Operations* issued by the World Bank on February 24, 2015. Under World Bank Policy Investment Project Financing with respect to projects financed by the World Bank, the borrower and the project implementing agencies are required to maintain FM arrangements—including planning and budgeting, accounting, internal controls, funds

[34] World Bank, *Guidance Note on Shadow Price of Carbon in Economic Analysis*, (2017), *http://pubdocs.worldbank.org/en/911381516303509498/2017-Shadow-Price-of-Carbon-Guidance-Note-FINAL-CLEARED.pdf*

flow, financial reporting, and auditing arrangements—acceptable to the World Bank to provide reasonable assurance that the proceeds are used for the purpose for which they were granted. Overall, the proposed project FM arrangements meet the minimum requirements of the World Bank. The FM risk is assessed as Moderate as DoFA has gained good experience with managing World Bank projects and the establishment of the CIU to manage the financial management of the Project with experienced and qualified staff has reduced the assessed FM risk for FSM projects. The POM will include a section on budgeting, disbursement, financial management arrangements and monitoring and reporting. The sharing of services by the CIU with other World Bank projects will require processes to ensure that expenditures are properly recorded and documented and associated project funds flows closely monitored. Training on the FM requirements for PRIME will be conducted by the CIU for the PIU and monitoring of compliance to FM processes will be a regular part of the World Bank review missions.

64. **Procurement.** Procurement under PRIME will be carried out in accordance with the *World Bank Procurement Regulations for IPF Borrowers for Goods, Works, Non-Consulting and Consulting Services*, dated November 2020. PRIME will be subject to the World Bank's Anticorruption Guidelines, dated October 15, 2006, revised in January 2011, and as of July 1, 2016. The World Bank will provide relevant procurement training and implementation support, and the Systematic Tracking of Exchanges in Procurement (STEP) application will be used to plan, record, and track, all procurement transactions. Accordingly, all the procurement activities under PRIME will be entered into, tracked and monitored online through the system. The existing Procurement Specialist in the CIU at DoFA is providing support, advising and guiding the national and state implementing agencies as they proceed to carry out implementation functions under the World Bank-financed projects.

C. Legal Operational Policies

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

D. Environmental and Social

65. The overall environmental risk is assessed as Substantial. Project activities will primarily take place within the existing primary road corridors, or immediately adjacent to the road to improve erosion protection, drainage or safety features. Project risks are likely to be identifiable, localized, short term or small scale, not irreversible or unprecedented, and can be addressed through conventional mitigation and management measures. Since site-specific activities will be defined during Project preparation, an Environmental and Social Management Framework (ESMF) has been prepared to describe the risk screening process and preparation of instruments during Project implementation. Further environmental and social assessments and consultations will be completed during the VA and CRRS and site-specific assessments and consultations during concept and detailed design of the discrete infrastructure improvement activities. The site specific Environmental and Social Management Plans (ESMP) will form part of the tender documentation for contractors. The ESMF was disclosed on the World Bank website on January 14, 2021. In addition, the Environmental and Social Commitment Plan (ESCP) for PRIME sets out the material measures and actions, specific documents and plans as well as the timing for each of these, for ensuring that the Project is implemented in accordance with the Environmental and Social Standards (ESS) under the ESF. The ESCP was

disclosed on the World Bank Website on April 15, 2021.

66. The main environmental risks and impacts are related to infrastructure rehabilitation and maintenance activities and include the management of erosion and sedimentation from earthworks and construction, especially those near coastal areas, freshwater bodies or other sensitive environments. These risks and impacts can be readily managed through standard mitigation measures such as silt fences, sediment treatment and restrictions on heavy machinery movements. Off-site activities include quarrying and asphalt plant operations, which if not managed properly, may cause localized adverse impacts. Longer term environmental issues such as modifying adjacent habitats and stormwater pollution can be enhanced, avoided, or mitigated through good design and good maintenance procedures.

67. The overall social risk is assessed as Substantial. Social risks and impacts relating to road construction and improvement activities include the health and safety risks for workers and the community (noise, dust, traffic), the management of temporary foreign work forces and the risk of increased gender-based violence through sexual exploitation and harassment, and marginal involuntary resettlement impacts. These risks can be managed through effective environmental and social management plans for road works, training of workers, and good supervision of mitigation measures. Early engagement with landowners, local communities, vulnerable groups and their traditional or local leaders (including indigenous groups) will be critical to ensuring agreement to the removal of property encroaching in project works areas. The design of road improvements will prioritize works within the corridors of existing primary roads and minimize the loss of private property, where technically feasible. A Resettlement Framework (RF) has been prepared, setting out requirements for minimization and mitigation of impacts. There will be an emphasis on participatory design approach whereby local communities and affected landowners and occupiers participate in the decisions related to the design of road improvements that affect them. The framework also provides protocols for voluntary land donation as well as entitlements for compensation and assistance where involuntary resettlement cannot be avoided. The RF was disclosed on the World Bank's website on January 25, 2021. A Stakeholder Engagement Plan (SEP) including a Grievance Mechanism (GM), has also been prepared and was disclosed on the World Bank website on January 25, 2021. Labor Management Procedures (LMP) and site-specific land due diligence reports, voluntary land donation agreements and resettlement plans will be prepared as required during Project implementation.

68. **Citizen engagement.** The SEP includes measures for engaging with communities in their preferred language and respecting their cultural needs, ensuring private land access is voluntary and involves all relevant land owners, ensuring all eligible households and businesses are aware of impending works (particularly vulnerable households), and ensuring stakeholders are fully engaged in the design of PRIME's works and various institutional strengthening activities. Engagement will continue throughout the Project including during the planning and design, construction, and post construction phases of physical works, for technical assistance, and institutional strengthening activities. As noted above, there will be an emphasis on participatory design whereby local communities and affected landowners and occupiers participate in the decisions related to the design of road improvements that affect them. The Project will monitor this through the indicator: "Length of road upgraded using participatory design approaches".

69. A variety of mechanisms will be utilized to consult with the identified stakeholders throughout the Project including village meetings, separate meetings with specific interest groups, and informal conversations with passers-by, transport users and other interested parties near work sites. To ensure broader participation,

consultations are to be undertaken at venues, times and in language that do not disadvantage any particular groups (e.g. women, or vulnerable households). Vulnerable groups are to be targeted through representative organizations including women, disability and youth associations. Remote communities which are often low income will be included through their traditional (e.g. chiefs) and formal representatives (e.g. senators). Pedestrians and cyclists and other vulnerable road users will be identified through community consultations and observations / surveys. Consultations were held during project preparation to help inform the Project, with the records contained in the Project ESMF and ESMP. Feedback will also be collected and addressed throughout implementation through the Project GM (see below). The Project will monitor feedback and address grievances through the indicator: "Grievances registered related to delivery of project benefits that are addressed".

70. **GM.** A GM has been established for PRIME to register and manage all grievances, relaying them to the appropriate party for resolution, and advising the complainant of the outcome. A specific GM pathway will be established for SEA and SH complaints to ensure survivor-centered approaches are applied, including the involvement of local GBV service providers. A separate labor grievance mechanism will be prepared in the LMP for worker-related issues. A GM and Referral Pathway Plan that is agreed by all members of the PSC will be finalized and appended to the POM by no later than three months after the Effective Date. The GM and Referral Pathway Plan will provide detail as to the GM and referral arrangements and the respective roles and responsibilities of the organizations involved in PRIME. The PIU, CIU and state agencies will ensure that the GM is well-publicized with Project-affected people during consultations, in public places and online. Statistics on grievance and complaint resolution will be collected and provided through the PRIME progress reports. In addition, consultations were held during Project preparation to help inform the Project design, with the records contained in the SEP.

V. GRIEVANCE REDRESS SERVICES (GRS)

71. **GRS.** 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 World Bank's GRS. The GRS ensures that complaints received are promptly reviewed in order to address Project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank 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 World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate 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.

VI. KEY RISKS

72. **Overall risk rating – Substantial.** The risk ratings for PRIME have been identified using the Systematic Operations Risk-Rating Tool (SORT). The main concerns involve: (i) institutional capacity risk, (ii) fiduciary

risk, (iii) environmental and social risk, and (iv) other risk, discussed in detail below.

73. **Institutional capacity risk – Substantial.** Weak government capacity presents a risk that could impede the implementation of the Project. This poses the risk that actions supported by PRIME may not be implemented as successfully as expected or in the timeframe agreed due to staff changes or unavailability. GoFSM has the added problem of lack of clarity and possible overlap in the allocation of roles and responsibilities between the National and State governments. Decision making can be difficult and thus cause further delays. However, GoFSM is proactively addressing institutional capacity risks through the staffing of the CIU, PIU and external consultants to provide technical and project management support during Project implementation. The overlapping responsibility risk will be partially mitigated through the appointments of focal points from each state, who will have coordinated responsibilities with national representatives to help move implementation forward.

74. **Fiduciary risk – Substantial.** The FM risk is assessed as Moderate, while the procurement risk is assessed as Substantial, and the overall fiduciary risk is therefore assessed as Substantial. There is limited institutional capacity within DoTC&I and there is only a small pool of FSM-based fiduciary experts, especially in World Bank procurement processes. Procurement capacity shortages are the lead cause of delays in procurement processes, and often contribute to poor contract management (e.g. poor contract monitoring and delays in payments to a supplier/contractor/consultant). Consequently, it often leads to delays in overall implementation progress and poses a substantial fiduciary risk for PRIME. In recognizing that the lack of fiduciary capacity affects all World Bank-financed projects, DoFA have established a CIU with the necessary expertise to support procurement and financial management functions (see Annex 1: Implementation Arrangements and Support Plan) to proactively mitigate the fiduciary risks; however, procurement related risks remain that may impact the implementation of PRIME. The remoteness of FSM has a significant and often unpredictable impact on market interest, and on the financial proposals submitted, and for this reason it is essential that thorough market and risk analysis is done by the IA with support from the PIU and CIU to inform each procurement undertaken.

75. **Environmental and social risk – Substantial.** The overall environmental risk is assessed as Substantial and the overall social risk is assessed as Substantial. The substantial environmental risks relate primarily to road infrastructure rehabilitation and maintenance activities. Activities such as resealing, realignment, demolition, erosion protection works, water crossings and drainage infrastructure could create adverse impacts on coastal areas, freshwater bodies, private land, mangroves from discharges of waste (hazardous, solid, and liquid wastes), erosion and discharges of sediment and habitat disturbances from heavy machinery. Sensitive areas include estuaries, lagoons, coral reefs, cultural heritage sites, springs, streams, and areas of food gathering or other ecosystem services. Other risks relate to the health and safety of workers and the community during civil works. Impacts can be managed through standard mitigation measures such as sediment and erosion control measures, good engineering design, minimizing earthworks and avoiding working in wet areas where possible, training of workers, occupation health and safety (OHS) measures prescribed within standard procurement documents and ESMP, and good supervision and oversight of construction activities. Long-term impacts of improved road infrastructure, such as stormwater drainage discharges to ground or to water bodies, can be improved or mitigated through good engineering design and maintenance.

76. Offsite activities, such as quarrying and asphalt plant operations, if not managed properly can cause

localized adverse impacts. These can be managed through the implementation of ESMPs, avoiding unsustainable sources of aggregates and ensuring imported materials meet strict biosecurity precautions and clearance for imported materials. Transport impacts associated with heavy vehicles along haul routes are noise, dust, road safety and damage road surface condition and the safe management of traffic around work areas can be managed through the establishment of a robust Traffic Management Plan (TMP), incorporated into the Contractors' Environmental and Social Management Plans (C-ESMPs).

77. PRIME environment requirements apply to all four States of FSM. All environmental management is at the state level and carried out by the Environmental Protection Agency (EPA) and Kosrae Island Resource Management Authority (KIRMA); however, enforcement of EPA/KIRMA laws is weak. Ongoing support from the CIU and oversight by the World Bank will be needed to mitigate these risks. An ESMF has been prepared to describe the process of screening risks and impacts and preparing instruments during Project implementation, since physical works activities have not been sufficiently defined during Project preparation and will be prioritized through the VA.

78. The social risks are rated Substantial and relate primarily to resettlement impacts for private structures and assets located within the existing primary road corridors. The State Governments have a system of acquiring easements for road assets but do not have legislation or practice requiring compensation for new road easements and affected property. Primary roads have been constructed on easements negotiated between the State Government and landowners. Such easements are entered into voluntarily with no compensation paid to the landowners. The easement agreements are not consistently documented and weakly enforced with encroachment of private property near to the road edges common in many areas. Landowners cooperation with previous State Government requests to remove property from roadsides to enable works is reported to be variable. Many existing secondary roads are understood to not have legal easements.

79. To promote understanding and support from communities, local stakeholders and potentially affected landowners and occupiers, PRIME will ensure a process of social preparation and meaningful consultation throughout implementation as well as active participation of affected landowners and communities in the works design process. This is described in the SEP in compliance with ESS10.

80. Three of the four states, Yap, Chuuk and Pohnpei, have traditional leadership structures. The Project will need to ascertain their roles and ensure their appropriate involvement in the consultation and grievance processes as described in the SEP.

81. The design of road investments under Component 2 will need to minimize loss of property where technically feasible in achieving its objectives and will also need to work closely with the Government to ensure that involuntary resettlement impacts, especially where these have the potential to adversely affect living standards, are properly mitigated. A RF has been prepared to describe the process for participatory approaches to engage landowners and occupiers in the design phase, processes for voluntary land access and the process of identifying and compensating Project-affected people from access to land.

82. Other social risks relate to the potential of health and safety hazards for workers, road users and bystanders during construction and from the use of upgraded road assets. Road safety assessments will be integrated into the design and construction processes. Appropriate mitigation measures have been documented in the ESMF and will be included in site-specific ESMP. Contractor TMPs will address safety management around

road works. An LMP will be prepared prior to any engagement of Project workers to document the fair and safe workforce management procedures in compliance with ESS2.

83. PRIME will be the first transport project in the Pacific Islands prepared under the World Bank ESF and the second project in FSM to be prepared under the ESF. DoTC&I is familiar with the World Bank safeguards policies and ESF from implementation of the Palau-FSM Connectivity Project and FSMIP and preparing the Digital FSM Project. The CIU Safeguards Team has been operating successfully for two years providing support across the World Bank Portfolio, with experience in the safeguards policies and the ESF. There is sufficient capacity in CIU to support DoTC&I and the respective State Governments' transport agencies to implement the Project. The travel restrictions among the four States and into and out of FSM due to COVID-19 is a significant constraint to preparing site-specific environmental and social assessments, consultations, monitoring and site supervision. This risk has been managed during the preparation phase by using local counterparts to collect data and consult with stakeholders, but future environmental and social assessment work during implementation could be delayed, as described below in 'Other risk'.

84. **Other risk – Substantial.** This risk has been triggered and is rated as Substantial due to the COVID-19 pandemic, which presents an unprecedented challenge for FSM. While FSM currently has no confirmed COVID-19 cases, it is still in an official State of Emergency.[35] Responding to the pandemic is the priority of both the GoFSM and the World Bank, and may result in unavoidable delays to PRIME due to the travel restrictions as international consultants cannot enter the country.

[35] State of Emergency declared on January 31, 2020.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Micronesia, Federated States of

Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project

Project Development Objectives(s)

To improve the climate resilience of FSM's road network.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Spatial and Sector Planning Tools									
Identified planning tools being used to improve climate resilience of roads (Number)		0.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Climate Resilient Infrastructure Solutions									
Length of road upgraded with climate resilience measures (Kilometers)		0.00	0.00	0.00	2.50	2.50	4.10	7.30	7.30
Number of water crossings reconstructed or rehabilitated with climate resilience measures (Number)		0.00	0.00	0.00	3.00	3.00	4.00	5.00	5.00

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Strengthening the Enabling Environment									
Identified enabling environment solutions implemented (Number)		0.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Component 1: Sectoral and Spatial Planning Tools									
Road asset management system that considers climate factors in use (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes	Yes
Vulnerability Assessment and Climate Resilient Road Strategy in use (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes	Yes
Component 2: Climate Resilient Infrastructure Solutions									
Length of road rehabilitated with pavement strengthening (Kilometers)		0.00	0.00	0.00	2.50	2.50	3.80	6.50	6.50
Length of road with improved drainage (Kilometers)		0.00	0.00	0.00	1.50	1.50	2.30	3.90	3.90
Length of road improved with spot slope		0.00	0.00	0.00	0.00	0.00	167.00	500.00	500.00

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
stabilization (Meter(m))									
Length of coastal protection revetment constructed and/or replenished (Meter(m))		0.00	0.00	0.00	350.00	350.00	517.00	850.00	850.00
Length of new vegetated coastal scour protection (Meter(m))		0.00	0.00	0.00	350.00	350.00	517.00	850.00	850.00
Climate resilient design packages completed (Number)		0.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00
Hydraulic designs considering hydrology, catchment area and tidal flows completed, with appropriate climate change-informed design factors applied (Yes/No)		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of direct and indirect beneficiaries having enhanced access to road transport services (Number)		0.00	0.00	0.00	63,120.00	63,120.00	63,120.00	63,120.00	63,120.00
Component 3: Strengthening the Enabling Environment									
Number of Government staff and local consultants who have achieved improvements in skills/knowledge as a result of capacity building programs compared to pre-training baseline		0.00	0.00	24.00	36.00	48.00	48.00	48.00	48.00

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
(Number)									
Road safety audits completed (Number)		0.00	2.00	3.00	5.00	5.00	5.00	6.00	6.00
Access audits completed (Number)		0.00	2.00	3.00	5.00	5.00	5.00	6.00	6.00
Percentage of contractor staff trained on SEA and SH components of the Codes of Conduct (Percentage)		0.00	0.00	0.00	100.00	100.00	100.00	100.00	100.00
Reduction in the gap between percentage of men and women with driver licenses (Percentage)		0.00	0.00	0.00	0.60	1.20	1.80	2.40	3.00
Institutional and Governance Review completed (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes	Yes
Length of road upgraded using participatory design approaches (Kilometers)		0.00	0.00	0.00	2.50	2.50	3.80	6.30	6.30
Reduction in the gap between percentage of men and women employed in technical roles within DoTC&I and State transport agencies (Percentage)		0.00	0.00	5.00	5.00	10.00	10.00	15.00	15.00
Citizen Engagement									
Grievances registered related to delivery of project benefits that are		0.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
addressed (Percentage)									

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	A cumulative measure of the uptake of analytical and sectoral planning tools (i.e., road asset management system, and vulnerability assessment tools) that improves the way that climate change is addressed in FSM's road sector.	Semesterly	Project progress reports	Stocktake of the planning tools in use	PIU
Length of road upgraded with climate resilience measures	A cumulative measure of the kilometers of road upgraded with at least one of these climate resilience measures: pavements and surface strengthening; drainage improvements; spot slope stabilization; rock wall revetment strengthening and road	Semesterly	Project progress reports	Site inspection	PIU

	safety improvements. For the purposes of PRIME, improvements to the Lelu causeway (and other potential causeways to be financed through PRIME) are categorized and accounted for as roads rather than as water crossings in the results framework.				
Number of water crossings reconstructed or rehabilitated with climate resilience measures	A cumulative measure that tracks progress of making water crossings more climate resilient through targeted investments. Investments include repairs or reconstruction of existing crossings and/or provision of new crossings to provide safe, all weather access for vehicles and pedestrians. For the purposes of PRIME, improvements to the Lelu causeway (and other potential causeways to be financed through PRIME) are categorized and accounted for as roads rather than as water crossings in the results framework.	Semesterly	Project progress reports	Site inspection	PIU

Identified enabling environment solutions implemented	An 'enabling environment solution' is defined as a consulting service or goods contract that delivers outputs that strengthen institutional and regulatory functions.	Semesterly	Project progress reports	Stocktake of contracts completed	PIU

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Road asset management system that considers climate factors in use	Nationally integrated asset management system created and maintained.	Semesterly	Project progress reports	Verification with FSM State Government counterparts	PIU
Vulnerability Assessment and Climate Resilient Road Strategy in use	Vulnerability Assessment and Climate Resilient Strategy completed and used to inform the works design.	Semesterly	Project progress reports	Review of detailed designs	PIU
Length of road rehabilitated with pavement strengthening	Measurement of the length of road that have received periodic maintenance, repairs, rehabilitation or reconstruction of existing road pavement layers and/or surfacing, including provision of sealed shoulders and raising road levels.	Semesterly	Project progress reports	Site inspection	PIU

Length of road with improved drainage	Measurement of the length of road that has provision, reinstatement and/or lining of longitudinal drainage, replacement and/or increasing capacity of cross drainage culverts, improving open or covered outfalls, provision of subsoil drainage and cut-off drains	Semesterly	Project progress reports	Site inspection	PIU
Length of road improved with spot slope stabilization	Measurement of the length of road that have been improved with spot slope stabilization, including widening and/or reducing slope of cuttings and fill embankments to reduce landslip risk, soil bioengineering and biotechnical stabilization techniques, and anchoring of unstable rock slopes.	Semesterly	Project progress reports	Site inspection	PIU
Length of coastal protection revetment constructed and/or replenished	Measurement of the length of construction or replenishment of coastal protection revetment	Semesterly	Project progress reports	Site inspection	PIU
Length of new vegetated coastal scour protection	Measurement of the length of new vegetated coastal scour protection	Semesterly	Project progress reports	Site inspection	PIU
Climate resilient design packages completed	Completion of climate resilient design packages to	Semesterly	Project progress	Review of detailed designs	PIU

	inform the works		reports		
Hydraulic designs considering hydrology, catchment area and tidal flows completed, with appropriate climate change-informed design factors applied	Completion of hydraulic designs to inform the water crossing works	Semesterly	Project progress reports	Review of detailed designs	PIU
Number of direct and indirect beneficiaries having enhanced access to road transport services	Number of direct and indirect beneficiaries having enhanced access to road transport services as a result of interventions supported by the World Bank Group (including highways, secondary roads, rural roads): - Direct beneficiaries typically include the current and new users (normal, diverted, and generated traffic) of the road who will benefit from reductions in cost and time to travel and/or improvements in safety, quality, comfort. This would be reported as ADT, multiplied by an appropriate contextual occupancy factor per passenger car unit (PCU). - Indirect beneficiaries	Semesterly	Project progress reports	Review of latest census data	PIU

	would include residents who live in the immediate hinterland of the road (within 2 km using the improved RAI methodology) who will benefit from improved safety along the road, higher environmental standards along the road, and the potential for increased access to local markets, job opportunities, and health and education services.				
Number of Government staff and local consultants who have achieved improvements in skills/knowledge as a result of capacity building programs compared to pre-training baseline	Measurement of improvement in skills/knowledge of Government staff or consultants through Component 3 capacity building programs	Semesterly	Project progress reports	Count of number of unique persons participating in capacity building programs	PIU
Road safety audits completed	Number of road safety audits conducted. Baseline, design and post-construction audits will be carried out for each site.	Semesterly	Project progress reports	Review of audit reports	PIU
Access audits completed	Number of access audits conducted. Baseline, design and post-construction audits will be carried out for each site. The access audits will identify areas of concern	Semesterly	Project progress reports	Review of audit reports	PIU

	and recommend related improvements to selected infrastructure for persons with disabilities.				
Percentage of contractor staff trained on SEA and SH components of the Codes of Conduct	Percentage of contractor staff trained on SEA and SH components of the Codes of Conduct	Semesterly	Project progress reports	Review of supervision consultant reporting	PIU
Reduction in the gap between percentage of men and women with driver licenses	A measure of the reduction in the gender gap by 3.0 percentage points.	Semesterly	Project progress reports	Review of State Government driver licensing databases	PIU
Institutional and Governance Review completed	Institutional and governance review conducted	Semesterly	Project progress reports	Review of deliverables	PIU
Length of road upgraded using participatory design approaches	Participatory design approaches to engage landowners and occupiers in the design phase are described in the Resettlement Framework. The sites where such processes are used to inform the design will be recorded and the kilometer lengths combined.	Semesterly	Project progress reports	Site inspection to verify completed works against approved detailed designs	PIU
Reduction in the gap between percentage of men and women employed in technical roles within DoTC&I and State transport agencies	A measure of the reduction in the gender gap by 15.0 percentage points.	Semesterly	Project progress reports	Count of men and women employed	PIU

Grievances registered related to delivery of project benefits that are addressed	A measure of citizen engagement	Continuous (project website); Semesterly (Project progress reports)	Project website and Project progress reports	Count of grievances registered	PIU

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Federated States of Micronesia
Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project

Project Institutional and Implementation Arrangements

1. PRIME will be implemented over a seven-year period following Project effectiveness. National DoTC&I will be the IA, working closely with each of the States. As each transport agency is under its respective State's control, and to ensure good technical coordination, focal points will be appointed in each State to work on and manage day-to-day PRIME activities associated with its land transport sector, and to liaise with the National DoTC&I.

2. A PRIME PIU will be established in DoTC&I. All contracts with consultants, contractors and suppliers will be signed by the DoTC&I Secretary, with the administration and contract management tasks of the contract being implemented by the PIU as their day to day responsibility. DoTC&I Secretary will sign off on all consultant and contractor invoices and authorize DoFA CIU to make payments. However, before doing so, the PIU will consult with each State focal point to ensure services and works have been completed and are satisfactory, where necessary. These arrangements will be detailed in the POM that FSM will adopt within three months of the effective date of the Financing Agreement.

3. To ensure the four States are adequately represented in decision making, a PSC will be established and chaired by DoTC&I. The Secretary of DoFA will be a member, along with a member appointed by the Governor of each of the four States. The PSC will provide general oversight and policy direction to PRIME stakeholders during Project implementation, convene key stakeholders in the event of disagreement, and periodically review Project progress.

4. Prior to the commencement of Project activities under Component 2 in a State, GoFSM, acting through DoTC&I, will execute a PIA with the State Government of such State to ensure clarity and agreement between the parties on implementation roles and responsibilities. Four PIAs will be required to help govern the PRIME activities in each State, with one PIA for each of the following groups:
   (a) GoFSM acting through its DoTC&I, and the Government of Kosrae State acting through its Kosrae Department of Transport and Infrastructure;
   (b) GoFSM acting through its DoTC&I, and the Government of Pohnpei State acting through its Pohnpei State Office of Transport and Infrastructure;
   (c) GoFSM acting through its DoTC&I, and the Government of Chuuk State acting through its Chuuk State Department of Transport and Public Works; and,
   (d) GoFSM acting through its DoTC&I, and the Government of Yap State acting through its Department of Public Works and Transportation.

Financial Management

5. An FM assessment was carried out in accordance with the *Principles Based Financial Management Practice Manual* issued by the World Bank on February 4, 2015, and as further elaborated in the World Bank Guidance *Financial Management in World Bank-Financed Investment Operations* issued by the World Bank on February

24, 2015. Under World Bank Policy Investment Project Financing with respect to projects financed by the World Bank, the borrower and the project implementing agencies are required to maintain FM arrangements—including planning and budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements—acceptable to the World Bank to provide reasonable assurance that the proceeds are used for the purpose for which they were granted. Overall, the proposed project FM arrangements meet the minimum requirements of the World Bank. The FM risk is assessed as Moderate as DoFA has gained good experience managing World Bank projects and the establishment of the CIU to manage the financial management of the Project with experienced and qualified staff has reduced the assessed FM risk for FSM projects. The POM will include a section on budgeting, disbursement, financial management arrangements and monitoring and reporting. The sharing of services by the CIU with other World Bank projects will require processes to ensure that expenditures are properly recorded and documented and associated project funds flows closely monitored. Training on the FM requirements for PRIME will be conducted by the CIU for the PIU and monitoring of compliance to FM processes will be a regular part of the World Bank review missions.

6. **FM Implementation Arrangements**. The existing institutional structure in the CIU established to provide cross-cutting functions, including FM, to all World Bank-financed projects will be used to carry-out the FM and disbursement functions for the Project. This includes the existing budgeting, accounting, financial reporting, internal controls, and external audit arrangements currently in place for all World Bank projects. The CIU is headed by a Program Manager with a Program Assistant, a Finance Supervisor and three Finance Officers/Assistants. The CIU is well-staffed and would be able to carry-out the FM requirements for this Project.

7. **Budgeting.** DoTC&I PIU will be responsible for preparing and monitoring the Project budget with support from the CIU. Foreign-assisted projects greater than US$50,000 are reviewed by Congress for approval by resolution. When the resolution is passed, allotments are entered into GoFSM's accounting system.

8. DoTC&I will prepare an annual work plan and budget with appropriate levels of detail (for example, Component or Category, whichever is deemed most relevant and useful).[36] The CIU will support the DoTC&I by reviewing this document and reporting on the analysis of budget versus actual expenditure, consolidate and incorporate this into the Project reports for each fiscal semester for PRIME. The CIU will submit an Interim Financial Report (IFR) for each fiscal semester along with the annual work plan and budget to the World Bank.

9. **Accounting Arrangements.** GoFSM currently maintains financial accounts in FundWare, a software with the following fully integrated modules: accounts payable, accounts receivable, payroll and general ledger. The chart of accounts enables segregation of Project transactions and classification by component. While it is envisaged that a new financial reporting system will be introduced by GoFSM during the life of PRIME, this will not reduce the capacity of the current reporting requirements. A new chart of accounts will be developed for the new Financial Management Information System (FMIS) and the PRIME accounts will be incorporated in the new system. A separate cost center will be opened to account for transactions under the components to be implemented under PRIME. The new FMIS will include capability to account for World Bank-supported projects and it is anticipated that there will be a transition period during which both the existing FundWare and the new FMIS will be running in parallel after which the FundWare system will be decommissioned.

[36] In no case will detailed information regarding criminal investigations be provided.

Project transactions will be entered by the CIU directly into the GoFSM's accounting system.

10. **Internal Controls.** The FSM Financial Management Regulations dictate GoFSM's internal control framework and provide adequate segregation of duties, asset controls, and approval and authorization controls. The POM will include a section on budgeting, disbursement, and financial management arrangements that will reference relevant government legislation and procedures. The POM will provide guidance on project internal controls either specifically required for the Project or not covered in sufficient detail in the Regulations. The CIU has also prepared a guidance note to be included in the POM on the role and responsibilities of the CIU for the areas of FM and procurement to ensure consistency across the portfolio. For the FM section, this will include a template for performance reviews, process for approving operating costs, monitoring and management of travel advances as well as general processes for transactions.

11. **Funds Flow.** One (1) segregated designated account will be opened in USD in a commercial bank or financial institution acceptable to the World Bank. The World Bank funds will flow from the World Bank directly into the designated account (DA), to be managed by DoFA. Project expenditures will be tracked through GoFSM's accounting system and paid from the treasury account. Prior to completing a replenishment Withdrawal Application, the equivalent funds expended from the treasury account will be transferred from the DA into the treasury account, hence the DA will be replenished by that amount. Adequate documentation will be required to be maintained to ensure easy reconciliation of payments made from the treasury account to payments authorized by PRIME. For larger project payments, the direct payment disbursement method can be chosen by DoFA and the Withdrawal Application enables funds to flow directly from the World Bank to the supplier. Where direct payments are used as the disbursement method, the transactions must be incorporated into the Project accounts. To facilitate the tracking of multiple projects, and the associated funds management aspects, the 'statement of expenditure' will be used for documenting project expenditures and replenishing the DA.

12. **Periodic Financial Reporting.** Financial reporting will be fully integrated into GoFSM's accounting system. PRIME will be allocated a cost center, and sub-accounts will be created to reflect the specific activities. Reports will initially be generated from the FundWare accounting system and will ultimately be generated by the new FMIS. The financial reports will include an analysis of actual expenditure for the current period, year to date, and for the cumulative to date, plus outstanding commitments, compared against the total project budget. The CIU will prepare IFRs in USD and in the format agreed with the World Bank, to be submitted no later than 45 days after the end of each semester. Such reports will be uploaded by the CIU in Client Connection for review and to comply with the new submission of financial and audit reports guidelines effective from August 1, 2020.

13. **External Audit.** The Audit of project funds will be part of the auditing of National Government accounts as project funds will be fully integrated therein. Audited National Government Accounts will be submitted to the World Bank within nine (9) months of the end of each fiscal year. Subject to the inclusion of the agreed notation in the national accounts produced during the life of PRIME, no separate project audit will be required. The audited financial statement along with a separate management letter will be uploaded in Client Connection to comply with the Financing Agreement requirement of the World Bank. The World Bank reserves the right to request additional information to supplement information provided in the National Government Accounts and to request a project audit if the required note is not included in the National Government Accounts. Currently, the audit of the National Accounts is sub-contracted by the Public Auditor to a private

contractor. DoFA, the Public Auditor, and the World Bank will agree on the information required to be disclosed. The National Accounts will be published on the Office of the Auditor General's website.

Disbursements

14. **Disbursement Methods and Supporting Documentation Arrangements.** Disbursements under PRIME may be under any of the following methods: (a) advances into and replenishment of the DA; (b) direct payment; (c) reimbursement; and, (d) Special Commitment. Direct payments will be used solely for large contracts.

15. **DA.** Project funds will be disbursed directly into a DA in a commercial bank, acceptable to the World Bank. The DA will be operated on an advance basis and the initial advance will be made through the completion and submission of a withdrawal application. The DA will be held in USD. Subsequent replenishments will be made through the submission of withdrawal applications, along with details on the use of funds previously advanced, based on Statements of Expenditures. The ceiling of the designated account, minimum application size for reimbursement, direct payment and special commitment, and supporting documentation are spelled out in the Disbursement and Financial Information Letter (DFIL).

16. The disbursement table showing categories of expenditure and amounts eligible for financing is shown below and is also found in the Financing Agreement. Please note in the case of discrepancy, the version referred to in the Financing Agreement takes precedent over the table shown below.

Table 1.1 Eligible Expenditures

Category	Amount of the Grant Allocated (Expressed in SDR)	Amount of the Grant Allocated (Expressed in US$ equivalent)	Percentage of Expenditures to be Financed (Inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Operating Costs, and Training for the Project	27,170,000	39,100,000	100%
(2) Refund of Preparation Advance	630,000	900,000	100%
Total amount	**27,800,000**	**40,000,000**	

17. **PPA.** A PPA is in place for FSM that covers carrying-out activities necessary for the preparation of pipeline projects and US$900,000 has been allocated to PRIME. Under PRIME, key preparatory activities proposed to be financed under the PPA include: (i) initial stages of preparation of the VA and CRRS; (ii) preparation of the environmental and social assessment and instruments; (iii) hiring of a Project Manager; (iv) Road Safety Audit consultancy; and, (v) design services for priority works.

18. **Disbursement Conditions.** No withdrawals should be made for payments made prior to the Signature Date.

Procurement

19. **Institutional Arrangement for Procurement.** The IA will be responsible for the procurement implementation of the Project. The CIU will provide support through its Procurement Specialist, Procurement Officer and a pool of procurement specialists as necessary.

20. **Applicable Procurement Regulation.** Procurement for the proposed Project will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers (Procurement Regulations), dated November 2020, and the provisions stipulated in the Financing Agreement. Procurement activities will use the World Bank's Standard Procurement Documents (SPD) where required or templates developed for PRIME. A Project Implementation Guidance (ProcGuide) prepared for fragile and small states in the Pacific will also provide useful references and documents for use in the procurement implementation.

21. **Procurement Risk Assessment.** A procurement risk assessment has been carried out (refer to section *V. Key Risks*), and key procurement risk areas include:
    (a) Limited capacity hinders procurement and contract management and leads to delays in procurement processes which leads to delays in Project implementation;
    (b) Limited pool of locally based experts in World Bank procurement processes; and
    (c) Poor response to market approaches for civil works packages.

22. To help mitigate these risks, the Procurement Specialist, the Procurement Officer and a reserve pool of specialists in the CIU will provide support to PRIME, although the task of managing and coordinating procurement activities in the Project will be the responsibility of the PRIME Project Manager.

23. **Procurement Types.** The various types of procurements to be financed by the proposed IDA grant and indicative cost estimate are detailed in the following table.

Table 1.3 Procurement Types and Selection Methods

Type of Procurement	Selection Methods
1. Works	RFP, RFB, RFQ
2. Goods and Non-consulting Services	RFB, RFQ, DIR
3. Consulting Services – Firms	QCBS, QBS, FBS, CQS, & CDS
4. Consulting Services – Individuals	INV (Open, Limited, and Direct)

24. **Procurement of Works.** This may include improvement of the narrow, low-level Lelu causeway in Kosrae, replacing the 12-meter Awak bridge in Pohnpei, improving the 1.5-kilometer airport to Pou Bay bridge road in Chuuk, and replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap. Also, activities to be prioritized by the VA and CRRS to strengthen network resilience, may include but are not necessarily limited to: pavement strengthening, drainage improvements, spot slope stabilization, rock wall revetment strengthening, and improvements to causeways and bridges.

25. **Procurement of Goods**. This may include asset management hardware, road safety equipment, and other

goods (with prior World Bank approval) that can be utilized to improve the resilience of FSM's road network or enable GoFSM to manage the road network more effectively.

26. **Procurement of Consulting Services (Firms and Individuals).** This may include, but not necessarily be limited to the VA and CRRS, feasibility studies, design and supervision of identified priority road assets to improve their resilience to climate-related hazards, institutional and regulatory reforms for road sector asset management and maintenance, and project management.

27. **Frequency of Procurement Supervision**. In addition to the prior review to be carried out by the World Bank, implementation support missions will be undertaken at least once per year. One in five procurement packages not subject to World Bank prior review will be examined ex post on an annual basis.

28. **Procurement Plan.** A draft Procurement Plan for the first 18 months has been prepared for PRIME. Once PRIME is effective the Procurement Plan will be updated to cover the next 12 months and will be regularly updated at least once every 12 months. This is consistent with the arrangement detailed in the Project Procurement Strategy for Development (PPSD).

Environmental and Social (including safeguards)

29. Environmental and social safeguards will be the responsibility of the PIU, supported by the CIU Safeguards Team. The CIU Safeguards Team will work with the PIU Project Manager and the State focal points to ensure that sub-projects are screened and scoped, environmental and social assessments are carried out prior to the completion of detailed designs, environmental and social clauses and the relevant safeguards instrument are included in bid documents and consultant's Terms of Reference environmental and social protection and mitigation measures are implemented by contractors, and that monitoring, grievance management, incident management and other activities are carried out in accordance with the safeguards instruments.

30. Specialist consultants may be engaged on an ad hoc basis by the PIU, supervised by the CIU safeguards team, to prepare environmental and social assessments, safeguards instruments and/or to conduct specialist supervision or monitoring services.

M&E

31. Project M&E will be conducted via periodic monitoring through semesterly reports that track progress in terms of distribution of inputs, disbursement of funds, and achievement of targeted indicators as outlined in the Results Framework (Section VI).

32. The World Bank will provide implementation support for PRIME on an on-going basis and visit FSM to monitor and evaluate progress. In country mission support or virtual support will be provided every 3 – 6 months.

33. PRIME will undergo a mid-term review no later than three years after the effective date of the Financing Agreement.

Strategy and Approach for Implementation Support

34. The support plan is based on previous experience from other projects in FSM as well as the Project's risk profile. GoFSM has had experience with World Bank projects and is familiar with the procedures and requirements. Additional support will be provided through the DoFA CIU.

35. DoFA, in consultation with DoTC&I, will determine the appropriate timing of semi-annual reviews, taking into consideration the availability of participants. The World Bank implementation review will cover non-technical aspects of the support including: (a) FM; (b) procurement; (c) implementation arrangements; and (d) safeguards. In addition, field visits will also be undertaken to Project sites. To the greatest extent possible, the World Bank team will accommodate any written request for 'as-needed' support for PRIME, including fiduciary aspects.

36. 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 DoTC&I. 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 World Bank. Representatives from the relevant government departments will be invited to attend the wrap-up meetings. Furthermore, any adjustment requiring more frequent reviews will be discussed, agreed upon, and documented in the Aide-Memoire.

37. A mid-term review mission will be held not later than three years after the effective date, or such other period as may be agreed, and provides an opportunity to review the Project and take stock of implementation progress. GoFSM shall prepare and furnish to World Bank, at least one month before the date of the mid-term review, a report, integrating the results of the monitoring and evaluation activities performed and, on the progress, achieved in the carrying out of PRIME during the period preceding the date of such report and setting out the measures recommended to ensure the efficient carrying out of PRIME and the achievement of the objectives.

38. 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 World Bank task team will work with DoFA and DoTC&I to clarify the requirements necessary to effect any changes. Any changes to PRIME that require amendments to the Financing Agreement will require a formal request from GoFSM's signatory to the Financing Agreement.

39. Six months prior to the closing date of PRIME, GoFSM will commence the preparation of its Implementation Completion and Results Report (ICR). The World Bank 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

40. Missions to support implementation for PRIME will be carried out every 3 – 6 months, either in country or virtually. 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 PRIME. The estimated level of annual support needed to implement PRIME is identified in the table below.

Table 1.4 Implementation Support Plan

Time	Focus	Skills Needed
First twelve months	Project launch and start-up	Task Team Leader Co-Task Team Leader Procurement Specialist Senior Project Engineer Project Engineer Asset Management Specialist Road Maintenance Engineer Financial Management Specialist Environment Safeguards Specialist Social Safeguards Specialist GBV Specialist Administrative Support
12-60 months	Project implementation	Task Team Leader Co-Task Team Leader Procurement Specialist Senior Project Engineer Project Engineer Asset Management Specialist Road Maintenance Engineer Financial Management Specialist Environment Safeguards Specialist Social Safeguards Specialist GBV Specialist Administrative Support

Table 1.5 Skills Mix Required

Skills needed	Number of staff weeks	Number of trips
Task Team Leader	8 per year	3 per year
Co-Task Team Leader	8 per year	3 per year
Procurement Specialist	4 per year	2 per year
Senior Project Engineer	4 per year	2 per year
Project Engineer	4 per year	2 per year
Asset Management Specialist	4 per year	2 per year
Road Maintenance Engineer	4 per year	2 per year
Financial Management Specialist	3 per year	2 per year
Environment Safeguards Specialist	3 per year	2 per year
Social Safeguards Specialist	3 per year	2 per year
GBV Specialist	3 per year	2 per year
Administrative Support	3 per year	0.5 per year

ANNEX 2: Detailed Project Description

COUNTRY: Federated States of Micronesia
Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project

PRIME Investments and Activities

1. The SDR 27.8 million (US$40.0 million equivalent) Project will improve the climate resilience of the road network in FSM.

2. It is important to note that while the types of activities and investments to be carried out under PRIME are known, the extent of the works that can be completed will depend on the results of the VA and CRRS to be carried out under Component 1. As such, the cost of proposed investments will not be known until PRIME is under implementation, and the available funding may not be sufficient to finance all VA and CRRS proposed investments.

3. **Component 1: Spatial and Sector Planning Tools.** This Component involves technical assistance that will directly support FSM by bringing about transformative change in the way that climate change is addressed in the road sector. The following activities are proposed under Component 1:
    a. VA and CRRS. Preparation, implementation, and updating of a road sector VA and CRRS to assess levels of vulnerability to climate change and severe weather events (e.g. sea-level rise, extreme rainfall, landslide, storm surge, etc.) across FSM's existing primary road corridors and GoFSM-selected existing strategic secondary road corridors. The VA and CRRS will also identify measures to enhance resilience and prioritize investments to balance vulnerability reduction against cost implication. Training will be provided to relevant national and state officials in the use of VA and CRRS tools.
    b. Climate-informed Road Asset Management System. Provision of hardware, software and ancillary tools to establish and maintain a climate-informed road asset management system to be used by DoTC&I and the State Governments' respective transport agencies. It is expected that the following types of data will be captured and included in the geospatial road asset management system: physical inventory and unique asset referencing method (for roads and critical structures such as bridges, retaining walls and culverts), construction properties, asset condition, road use (traffic volume, axle loading, traffic growth) and relevant environmental data. The asset management system will also accommodate the ongoing capture and storage of construction, maintenance and expenditure data. The objective is to create and maintain a nationally integrated asset management system that facilitates the development of sound strategies and treatment selection logic to aid in the preparation and management of annual work plans and based on these submit accurate annual maintenance budgets to State and National parliaments. Training will be provided to relevant National and State officials in the use of the system.

4. **Component 2: Climate Resilient Infrastructure Solutions.** 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 road network.
    (a) Urgent Priority Works (including design and supervision). Critical climate resilient road, bridge or drainage improvement works that should be implemented urgently to maintain a basic level of road

connectivity in each state. Urgent works proposed for financing under the Project include:

(i) Improving the narrow, low-level Lelu causeway in Kosrae;
(ii) Replacing the 12-meter span Awak bridge in Pohnpei;
(iii) Improving the 1.5-kilometer long airport to Pou Bay bridge road in Chuuk; and
(iv) Replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap.

(b) Works informed by the VA and CRRS (including design and supervision).[37] In addition to the urgent priorities under Sub-component 2a, a selection of near, medium and long-term road works will be financed to enhance the resilience of the network in each state to climate change impacts and natural hazards, in accordance with the recommendations from the VA and CRRS undertaken as part of Component 1. Works under PRIME will be restricted to existing primary road corridors. All roads are single carriageway and any increase in the width of road formations will be limited to (i) lane widening to meet current design standards, (ii) addition of shoulders, (iii) addition of longitudinal drainage where required, and (iv) widening of fill embankments and/or cuttings to reduce slopes. Interventions are expected to include measures to strengthen network resilience, including but not necessarily limited to:

- Pavement and surface strengthening – periodic maintenance, repairs, rehabilitation or reconstruction of existing road pavement layers and/or surfacing, including provision of sealed shoulders and raising road levels;
- Drainage improvements – provision, reinstatement and/or lining of longitudinal drainage, replacement and/or increasing capacity of cross drainage culverts, improving open or covered outfalls, provision of subsoil drainage and cut-off drains;
- Spot slope stabilization – widening and/or reducing slope of cuttings and fill embankments to reduce landslip risk, soil bioengineering and biotechnical stabilization techniques, and anchoring of unstable rock slopes;
- Rock wall revetment strengthening – for protection of coastal road sections;
- Improvements to causeways and bridges – repairs or reconstruction of existing crossings and/or provision of new crossings to provide safe, all weather access for vehicles and pedestrians; and
- Road safety improvements – traffic calming measures, provision of guardrails, line marking and minor realignments to improve sight distance.

5. **Component 3: Strengthening the Enabling Environment.** This Component will provide funding to support institutional and regulatory reforms for climate resilient 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 strengthen coordination among relevant institutions, 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.
    a. Institutional and Governance Review. A review of institutional arrangements, key policies, regulations, legislation, financing mechanisms and roles and responsibilities of principle stakeholders involved in the road sector with recommendations to strengthen such arrangements. Based on the technical recommendations from the Review, additional technical assistance may be developed through the *Emerging Priority Issues* Sub-component to help FSM implement actions that address the lack of reliable and sufficient funding for periodic and routine maintenance.

[37] It is expected that physical works will not commence until year 3 of the Project.

b. Project Management. Establishment and maintenance of a PIU to support the implementation of PRIME. Initially, the PIU will be staffed with a PIU Project Manager, based in Pohnpei, with additional PIU project management support to be recruited, as needed. In addition, this includes operating costs for PRIME-related travel and communications costs. Additionally, this Sub-component includes the provision of technical assistance activities to assess environmental and social risks and impacts and prepare environmental and social instruments that enhance the sustainability of PRIME's climate resilient road sector activities in accordance with the World Bank ESF and the laws and policies of FSM.

c. Road Safety Program. Provision of technical assistance activities to improve road safety of a more climate resilient road network. This will include baseline and detailed design stage road safety audits and post-construction road safety audits for all road works. The road safety audits will also include access audits[38] for persons with disabilities. The purpose of these road safety audits is to identify areas of concern for the safety of all road users. The audits will systematically analyze the potential risks making the infrastructure unsafe. The recommendations arising out of these audits will inform the detailed design of the works to mitigate the hazards. This program may also finance a Road Safety Diagnostic that identifies capacity gaps and issues with road safety in FSM and provides recommendations on how to address them. Follow-up technical assistance to implement these recommendations may be financed under this Sub-component.

d. Capacity Building Initiatives. Activities under this Sub-component will improve the planning, management and regulation of a climate resilient road network, and provide support to address gender employment gaps and potential sexual exploitation and abuse and sexual harassment concerns related to Project implementation. Technical trainings will be provided to sector agencies and local consultants and contractors to operate and regulate a more climate resilient road network. A comprehensive capability assessment will be undertaken of relevant government departments, local consultants and contractors in each of the FSM states to understand the current capabilities to plan, manage and regulate a climate resilient road network. This would include, but not necessarily be limited to: asset management systems (maintenance of an asset register, contract records and condition data), design (planning of road networks, conduct of locally appropriate road design), periodic maintenance (least lifecycle-cost strategies for managing concrete, asphalt, chip-seal and gravel roads which consider the materials and resources available at a state level. Identification of needs for investment and preservation of road assets and development of a works program), contracting (bid for works, prepare documentation, source road building materials, conduct quality work, incorporate environmental management controls and worksite safety), occupational health and safety, and environmental and social safeguard compliance. The capability assessment will recommend a range of prioritized capacity building initiatives to target the main opportunities to improve the functioning of the road sector ecosystem to create better outcomes for road users. These initiatives will come in the form of specific technical studies, formal trainings, technical advisory services and the purchasing of relevant goods. The assessment will also inform the treatment logic in the road asset management system to ensure maintenance strategies reflect the local environment (e.g. availability of materials and their unit rates, availability of plant, on-island capability etc.). A focus of the training segment will be upskilling women for technical careers working on the road sector at DoTC&I and at the State Governments' respective transport agencies, complemented by internal process improvements within DoTC&I and State Governments' respective transport agencies to improve the recruitment and retention of qualified women. In addition, support will be provided with regards to SEA and SH including: (i) conducting

[38] The access audits will identify areas of concern and recommend related improvements to selected infrastructure for persons with disabilities.

training activities for Project workers; (ii) conducting community awareness raising activities; (iii) supporting GBV survivors through providing funding for local service providers; and (iv) establishing a referral pathway for GBV survivors.

e. Driver Licensing Pilot. A pilot program to study and implement activities that address gaps in the possession of a driver's license for women and persons with disabilities. 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 the relevant State Transportation Agency in each state 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 upskill staff engaged in the pilot program. In advance of this, a beneficiary survey will be undertaken that includes a focus on gender and persons with disabilities that will help assess the impacts of the major climate resilient works carried out under the Project and will also inform the driver licensing pilot.

f. Emerging Priority Issues. 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.

6. The estimated costs of each Component and Sub-component are summarized in the following table.

Table 2.1 Project Cost Breakdown by Component and Sub-component

Proposed Activities and Cost Estimates (US$ million)		
	Base cost	**Expected implementation period**
Component 1: Spatial and Sector Planning Tools	**1.50**	
1a Vulnerability Assessment and Climate Resilient Road Strategy	0.50	Year 1 to 7
1b Climate-informed Road Asset Management System	1.00	Years 1 to 7
Component 2: Climate Resilient Infrastructure Solutions	**34.00**	
2a Priority Works (incl. design & supervision)	16.00	Years 2 & 3
(i) Lelu causeway in Kosrae		Years 2 & 3
(ii) Awak bridge in Pohnpei		Years 2 & 3
(iii) Airport to Pou Bay bridge road in Chuuk		Years 2 & 3
(iv) Two bridges in Yap		Years 2 & 3
2b Works informed by the Vulnerability Assessment and Climate Resilient Road Strategy (incl. design and supervision)	18.00	Years 3 to 7
Component 3: Strengthening the Enabling Environment	**4.50**	
3a Institutional and Governance Review	0.25	Years 1 to 5
3b Project Management	3.25	Years 1 to 7
3c Road Safety Program	0.25	Years 1 to 7
3d Capacity Building Initiatives	0.25	Years 1 to 7
3e Driver Licensing Pilot focused on Gender Gaps	0.25	Years 1 to 7
3f Emerging Priority Issues	0.25	Years 1 to 7
Total	**40.00**	

Notes: Component cost estimates include price and physical contingencies. Costs are inclusive of tax.

ANNEX 3: Economic Analysis

COUNTRY: Federated States of Micronesia
Prioritized Road Investment and Management Enhancements (PRIME) Project

1. The economic analysis was conducted based on a standard methodology applied for appraisal of infrastructure works, which demonstrates the overall EIRR of 84.1 percent and NPV US$89.08 million. The economic evaluation focuses on Component 2, which has two major Sub-components:

   (a) Sub-component 2a: Critical climate resilient road, bridge or drainage improvement works that should be implemented urgently to maintain a basic level of road connectivity in each state, which includes: (i) improving the narrow, low-level Lelu causeway in Kosrae; (ii) replacing the 12-meter Awak bridge in Pohnpei; (iii) improving the 1.5-kilometer airport to Pou Bay bridge road in Chuuk; and, (iv) replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap.

   (b) Sub-component 2b: A selection of near-, medium-, and long-term road works in accordance with the recommendations from the VA and CRRS undertaken as part of Component 1.

2. For Sub-component 2a, the analysis focuses on the infrastructure improvement (or replacement) cost over the first 2 years. And for Sub-component 2b, the analysis focuses on the road improvement that will start in Year 3 and 4 of Project implementation, based on the recommendations from the VA and CRRS from Component 1. The discount rate is assumed to be 7 percent. The CBA was conducted to calculate the EIRR and NPV of the Project covering the period of 20 years (2022-2041), assuming the road maintenance continues over the full study period.

3. **Economic Evaluation Assumptions.** Table 3.1 and 3.2 show the details of traffic data and basic assumptions based on road characteristics, respectively. The estimated unit cost for AC road improvement follows National DoTC&I's historical costs.

Table 3.1: Basic Assumptions on Road and Traffic Characteristics, 2020

Road/Bridge Sections	Length (m)	Width (m)	Estimated number of road users per day[39]
Kosrae: Causeway	700	4.5	12,096
Pohnpei: Awak Bridge	12	4.5	9,379
Chuuk: Road from Airport to Pou Bay Bridge	1,500	7	12,029
Yap: Two short-span bridges	12	5	4,570
Roads in Sub-component 2b	4,650	6	9,518

4. For Sub-component 2b, the Project covers approximately 4.65 kilometers of roads and two bridges. There is no detailed traffic data by section, but the estimated traffic is around 2,582 vehicles per day. To be conservative, it

[39] Based on traffic data provided by DoTC&I in September 2020.

is assumed that the traffic on these roads does not grow over time. The estimated unit cost for climate resilient road improvements is US$2.0 million per kilometer.

5. Key economic benefits of Sub-component 2a arise from: (a) reduced disruption from failing infrastructures for each state; (b) avoided major disruption or catastrophic incidence due to infrastructure failure; (c) avoided rehabilitation or reconstruction cost in the foreseeable future; and (d) road accident reduction. The analysis assumes the baseline of 14-day regular disruption per year, which would grow to 30 days by 2030. The catastrophic impact of infrastructure failure is also assumed to happen as soon as 2025 and to be about 20 percent of the current value of road users' economic activities, in which the reconstruction will be conducted the year after. The road safety benefits are derived from RSSAT.

6. Key benefits for Sub-component 2b are the same as those (a-d) noted above for Sub-component 2a, as well as (e) vehicle operating cost (VOC) savings; (f) travel time savings; and (g) avoided emergency maintenance and reconstruction. The analysis adapts an HDM-4 model to calculate the vehicle operating costs under different levels of road condition to determine VOC savings. It is assumed that the surface treatment will improve vehicle operations equivalent to the improvement of IRI from 10 to 4 m/kilometer. Based on the HDM-4 calculation, this is about US$ 0.0445 per vehicle-kilometer. The time savings are calculated from improving average speed (from current average of 30 kilometers/hour to around 32 kilometers/hour, depending on the road section). The avoided emergency repairs are calculated based on: (i) without-project annual emergency repair expenditures of US$700,000/km/year for 20 percent of the road sections under the Project; and (ii) reconstruction[40] needs for the remining 80 percent after 10 years. The standard conversion factor is assumed to be 0.85.

7. **Economic Evaluation Results.** Based on the cost-benefit analysis, the investment in urgent priority infrastructure (Sub-component 2a) yields the EIRR of 92.9 percent and NPV of US$59.38 million. The investment in roads under Sub-component 2b yields the EIRR of 40.4 percent and NPV of US$29.69 million. Hence, the overall Project's EIRR is 84.1 percent with the NPV of US$89.08 million.

8. The sensitivity of the EIRR was also tested against three cost variation scenarios and their combinations, which has confirmed the robustness of economic returns. The results of the sensitivity analysis are illustrated in the Table 3.2. Figure 3.1 and 3.2 illustrates the sensitivity of EIRR to the timing of infrastructure failure and the sensitivity of EIRR to the severity of such infrastructure failure, respectively.

Table 3.2: CBA Results and Sensitivity Analysis

Scenarios	Sub-component 2a		Sub-component 2b		TOTAL	
	EIRR	NPV ($m)	EIRR	NPV ($m)	EIRR	NPV ($m)
Base case	92.9%	59.38	40.4%	29.69	84.1%	89.08
Investment cost increases by 20%	80.7%	57.16	34.7%	27.63	71.5%	84.79
Benefits are 20% lower than expected	78.1%	45.29	33.5%	21.69	68.8%	66.98
Annual traffic growth is 0% (from 0.24%)	92.3%	58.87	40.4%	29.69	83.5%	88.56

[40] Reconstruction cost is assumed to be about 1.85 times of the rehabilitation cost.

Both investment costs increase by 20% and benefits are 20% lower than expected	67.0%	43.07	28.3%	19.63	57.5%	62.69

Figure 3.1: EIRR's sensitivity to Component 2a's infrastructure failure timing

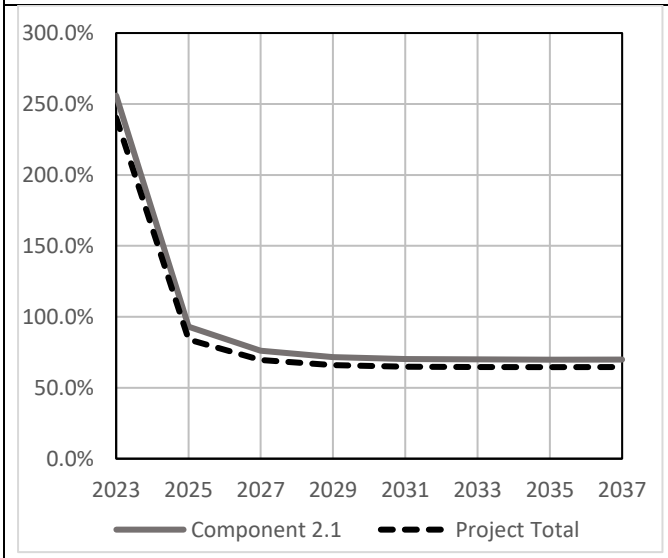
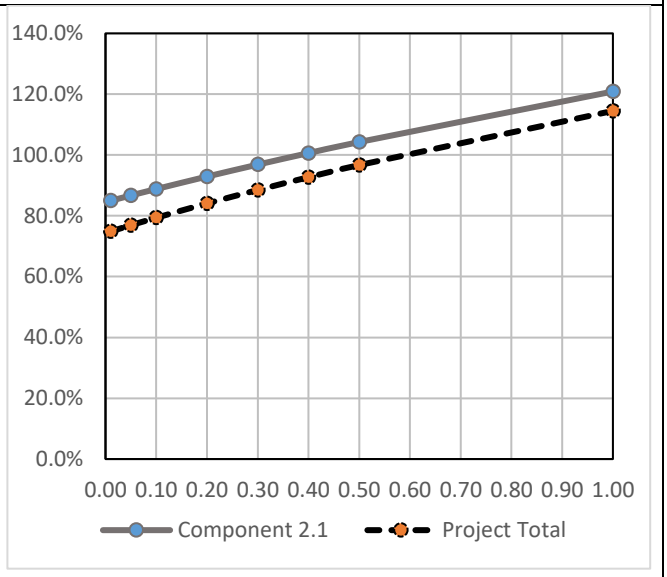


Figure 3.2: EIRR's sensitivity to the severity of infrastructure failure



9. **GHG Accounting.** An analysis of GHG emissions was undertaken based on the fuel consumption rate at different speeds under with-project and without-project scenarios. Without the Project, the road's deteriorated condition limits vehicle speed and leads to higher fuel consumption per vehicle-kilometer compared to the with-project scenario. With the Project, improved road condition leads to improved speed, and hence lower fuel consumption. Gross GHG Emission under the with-project scenario is estimated to be 30,022 tCO_2e. Total Net GHG Emission is estimated to be -730 tCO_2e. This is a net reduction over the evaluation period (20 years). The Annual Average Net GHG Emission is -36 tCO_2e/year. The social benefit from GHG reduction is estimated to be US$67,123, based on social cost of emission reduction from the World Bank's Guidance Note on Shadow Price of Carbon in Economic Analysis.[41]

[41] World Bank, *Guidance Note on Shadow Price of Carbon in Economic Analysis*, (2017), *http://pubdocs.worldbank.org/en/911381516303509498/2017-Shadow-Price-of-Carbon-Guidance-Note-FINAL-CLEARED.pdf*

ANNEX 4: Series of Projects

COUNTRY: Federated States of Micronesia
Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project (PRIME)

1. The PCRTP SOP includes a series of independent projects to multiple Recipients who are facing a common set of development issues. The SOPs share a common design to finance activities to systematically improve the resilience of transport networks in PICs to natural hazards and climate change, while recognizing and providing flexibility to address the fundamental differences and needs of the countries included within the SOP. This means that though each project in the SOP follows the common design and is aligned with the overall program objectives, each project can be adapted to reflect the local realities and can move forward at its own pace. Each SOP therefore includes activities and investments at the country-level, with each of the country projects being self-standing.

2. 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.

3. **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.

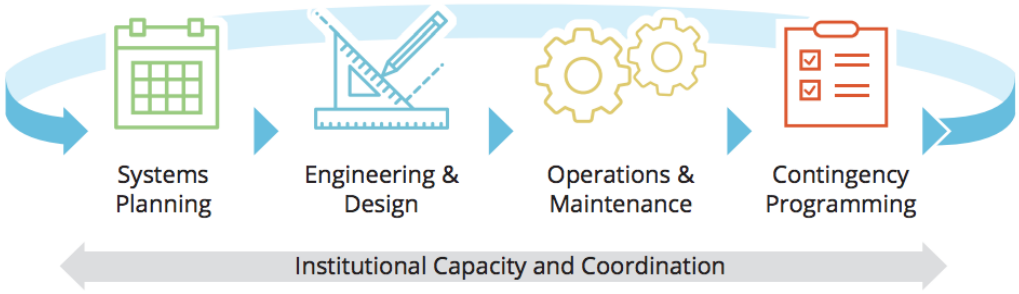
4. **Rationale for World Bank involvement.** The World Bank is already supporting numerous climate resilient investments in the transport sector in the Pacific; however, the approaches taken are often distinct on a country-by-country comparison. This series, rather than distinct country-specific projects, will help provide consistency and to systematically address the way that challenges are addressed in the transport sector by the World Bank, 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.

5. 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 save resources (financial, human) associated with rehabilitation.

6. The SOP will support Recipients through integrating risks in a holistic manner, through the integration of resilient transport interventions into decision-making and implementation. A World Bank 2017 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 Lifecycle[42]



7. **Program components.** PCRTP consists of the following four pillars:

   a. **Pillar 1**: **Sectoral and Spatial Planning Tools**. This involves technical assistance to 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 roads, airports, and ports 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 PICs, 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 on desalination facilities for water. This

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

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.[43] 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.[44] Traditional engineering approaches may focus on construction of seawalls, breakwater 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. The 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 large 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 that climate change and severe weather events pose to transport infrastructure. Therefore, project management support within key implementing entities 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, geographic information system (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 obligations,[45] performance-based standards, technical standards, and codes of practice.

d. **Pillar 4: CERC.** 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. Therefore, this component will focus on emergency repairs to infrastructure (e.g., roads, wharves, jetties, runways, bridges, seawalls) in case of a disaster event by including a "zero-dollar" CERC in the project design.

[43] 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. The following report provides the strengths, weaknesses, and O&M implications of four different types of concrete pavement, including geocell concrete in the PIC context: Johnson, Sam; Faiz, Asif; Visser, Alex. 2019 *Concrete Pavements for Climate Resilient Low-Volume Roads in Pacific Island Countries.* 2019. © World Bank

[44] Examples include: (i) PRIF, Affordable Coastal Protection in the Pacific Islands, February 2017; and, (ii) PRIF, Guidance for Coastal Protection Works in the Pacific Island Countries, November 2017.

[45] 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).

8. 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 that fall under the other pillars. Similarly, alongside investments in climate resilience, a project under this SOP may focus on other sector priorities best addressed through that project (e.g., improving safety of transport assets or improving access) based on countries' respective needs. PRIME does not include Pillar 4 (CERC), as a CERC is already included in FSMIP.

9. PCRTP currently consists of two phases. A first phase (Phase 1) includes a series of projects for Samoa, Tuvalu and Tonga, all of which were approved by the Board in 2018 with a closing date of 2024. PRIME will be the sixth project in the programmatic approach and the third project under a second phase (Phase 2) of PCRTP. The total cost of PCRTP is estimated to amount to US$231.20 million equivalent including US$217.77 million in IDA financing and US$13.43 million in Other Sources of Financing (Table 4.1).

Table 4.1: Overview of PCRTP SOP

	Project	Project Number	Project Cost (US$ million equivalent)	IDA Financing (US$ million equivalent)	Other Sources of Financing (US$ million equivalent)	Approval Date	Closing Date
1	Samoa Climate Resilient Transport Project (SCRTP)	P165782	35.75	35.75	N/A	September 14, 2018	January 31, 2024
2	Tonga Climate Resilient Transport Project (TCRTP)	P161539	27.25	26.02	1.23 (Road Fund)	November 29, 2018	December 31, 2024
3	Tuvalu Maritime Investment in Climate Resilient Operations (MICRO)	P161540	20.20	20.00	0.20 (GFDRR Grant)	December 18, 2018	January 31, 2024
4	Vanuatu Climate Resilient Transport Project (VCRTP)	P167382	66.00	66.00	N/A	January 23, 2020	December 31, 2025
5	Kiribati Outer Islands Transport Infrastructure Investment Project (KOITIIP)	P165838	42.00	30.00	12.00 (ADB)	March 12, 2020	June 30, 2026

6	Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project (PRIME)	P172225	40.00	40.00	N/A	May 27, 2021 (Planned)	August 31, 2028
		Total	**231.20**	**217.77**	**13.43**		

10. **Lessons learned and reflected in program design.** The design of the PCRTP pillars has taken into consideration the lessons learned from other World Bank 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.

11. **Results M&E.** 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.

ANNEX 5: PIC9 RPF – Country Program Adjustment responding to COVID-19

COUNTRY: Federated States of Micronesia
Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project (PRIME)

1. **Over the past decade, the nine Pacific Island Countries[46] (PIC9) covered by the World Bank RPF FY17-FY21 (Report #120479, extended by the Board of Executive Directors on February 6, 2020 to FY23) have made modest economic and social progress due their narrow economic base, high exposure to climate change risks, and extreme remoteness.** The economies of the small PICs are driven primarily by fishing, agriculture, and tourism, as well as the construction of public infrastructure, including recovery and reconstruction spending in response to natural disasters such as Tropical Cyclone (TC) Pam, which hit Vanuatu and Tuvalu in 2015, and TC Gita, which hit Tonga and Samoa in early 2018. Prior to the COVID-19 pandemic, revenue from fishing licenses drove budget surpluses in Kiribati, Tuvalu, and the North Pacific countries, while prudent fiscal policy has helped Samoa and Tonga to move toward more balanced budgets. The PIC9 has remained free of COVID-19 cases to date. However, keeping the virus at bay, while good news on the health front, has meant closed borders. The COVID-19 shock has pushed all the economies into recession, most severely those highly dependent on tourism (Palau, Samoa, Tonga, and Vanuatu). In addition, TC Harold hit Vanuatu and Tonga in mid-2020. These countries are having to manage both the pandemic and the recovery from a natural disaster. The World Bank Group's engagement under the RPF[47], will therefore need to be adjusted to support the region in its Relief, Restructuring, and Resilient Recovery.

Impact of the COVID-19 Pandemic on the PIC9 and Government Responses

2. **The South Pacific economies of Samoa, Tonga, and Vanuatu have been deeply impacted by a range of natural disasters and adverse shocks over the past year.** As noted, TC Harold struck Vanuatu and Tonga in April 2020, while measles plagued Samoa in late 2019. COVID-19 has had severe effects on tourism-related activity and employment. In each of these countries, economic output is expected to drop by 10 to 15 percent in the 2020 calendar year.

3. **The Central Pacific countries—Kiribati, Nauru, and Tuvalu—have been less severely affected by the pandemic than their tourism-dependent neighbors.** Nonetheless, a slowdown in donor-driven construction activity and visitor arrivals is still expected to result in economic contractions in 2020, of about 1 percent in Tuvalu and 2 percent in Kiribati and Nauru.

4. **In the North Pacific, the economic impact of COVID-19 is also expected to push FSM, RMI, and Palau into recession in FY20 and FY21.** In FY20 (year ended September 2020) an economic contraction of around 5 percent is anticipated for FSM and RMI, and 12 percent in Palau. With borders expected to remain closed until at least mid-2021, all three economies are projected to contract further in FY21. While large parts of government revenues are relatively protected from the economic downturn (namely, aid flows and fishing revenues),

[46] The nine PICs are the Republic of Kiribati, the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), the Republic of Nauru, the Republic of Palau, the Independent State of Samoa, the Kingdom of Tonga, Tuvalu, and the Republic of Vanuatu.
[47] The RPF is structured around four strategic focus areas that remain on track. These are: 1) fully exploiting available economic opportunities; 2) protecting incomes and livelihoods; 3) enhancing access to employment opportunities; and 4) strengthening the enablers of growth opportunities (such as macroeconomic management, infrastructure, and knowledge). The RPF has climate resilience and fiscal/debt sustainability as foundational pillars, with cross-cutting themes of gender equality and digital technology development.

substantial fiscal risks remain, including due to the scheduled expiry in 2023 and 2024 of fiscal transfers related to these nation's Compact of Free Association with the U.S.

5. **The PIC9 response to the COVID-19 pandemic has been swift.** In addition to quickly closing borders and implementing health measures, many countries have enacted policies designed to maintain macroeconomic stability and support impacted sectors and households**.** Social protection mechanisms are generally weak in the Pacific. Consequently, countries have used a variety of measures to support livelihoods and businesses during COVID-19. These have included tax relief, access to pension fund savings, reduction in education fees, agricultural support funding, deferral of debt service for firms, and other measures. Given the general lack of social protection schemes in the Pacific and the low capacity in the health sector, governments are now engaging with the World Bank and other development partners on formulating long-term programs to sustainably manage the economic and health shocks. As COVID-19 vaccines become available, the countries will require near and medium-term assistance for immunization programs. This is in addition to ongoing measures to build greater resilience to the growing threat posed by climate change and natural disasters. Cognizant of their vulnerability to widening deficits as revenues have collapsed, countries are developing enhanced Medium-Term Fiscal and Debt Sustainability frameworks, to ensure long-term fiscal stability. The majority of the PIC9 have maintained zero non-concessional borrowing rules under the new Sustainable Development Financing Policy, prioritized low-cost financing, and where official bilateral debt is high and costly, have taken advantage of the Debt Service Suspension Initiative (DSSI).

World Bank Group Support for Responding to the Crisis

6. Consistent with the World Bank Group COVID-19 Crisis Response Approach Paper, the World Bank's program in the PIC9 has been adjusted to align with the three phases of Relief, Restructuring, and Resilient Recovery. The FY21 pipeline was re-prioritized to free-up financing space for emergency health operations and DPOs (where appropriate). The pipeline for the remainder of IDA19 (FY22, FY23) is also being re-confirmed with clients in light of COVID-19.

7. ***Support to Health for Saving Lives Threatened by the Virus:*** Emergency health response operations were delivered for Kiribati (US$2.5 million), RMI (US$2.5 million), and Samoa (US$2.9 million) in the last quarter of FY20, with the aim to prevent, detect, and respond to the threat posed by COVID-19 in these countries and to strengthen national systems for public health preparedness. In addition, Contingent Emergency Response Components (CERCs) were triggered in selected active projects in FSM (US$2.5 million), Samoa (US$0.5 million), Tonga (US$2.9 million), and Tuvalu (US$2.5 million). The availability of resources in these CERCs enabled the rapid release of funds to clients for emergency health response to COVID-19. In Vanuatu, a Development Policy Operation (DPO) with a Catastrophe Deferred Drawdown Option (Cat-DDO) was restructured to include a health-related catastrophe trigger, resulting in a US$9.92 million disbursement to the country on April 24, 2020. Samoa similarly drew down on its Cat-DDO, resulting in a US$5.09 million disbursement on March 26, 2020. *[Relief]* Discussions are to be held with RMI, FSM, and Vanuatu to confirm interest in World Bank support for COVID-19 vaccination under the World Bank's expanded COVID-19 Strategic Preparedness and Response Program.

8. ***Protecting the Poor and Vulnerable:*** In Samoa, a new resilience DPO/Cat-DDO under preparation for FY21 delivery was adjusted to also respond to COVID-19. To support the poor and the vulnerable, this operation includes supporting the government in introducing an unemployment benefit and a short-term paid training scheme as part of its FY21 budget, which will support workers losing employment due to COVID-19. Top-ups to

senior citizens' benefits will also be implemented as part of the government's FY20 supplemental budget and its FY21 budget. *[Restructuring]*

9. ***Ensuring Sustainable Business Growth and Job Creation*:** In Tonga, a regular DPO originally scheduled for delivery in FY21 was deferred to FY22 and replaced by an emergency DPO with additional resources from the Crisis Response Window. To support livelihoods and household investments in human capital, this operation includes supporting the government in putting together an Economic and Social Stimulus Package, which provides school fee relief and targeted crisis-responsive social protection payments drawing on newly developed social registries and using new electronic payment methods. It also establishes institutional mechanisms for the payment of wage subsidies to workers and financial assistance to formal and informal businesses affected by the crisis. To help lay the foundation for economic recovery, the operation supports the expansion and extension of the government's flagship microfinance program, along with the passage of Tonga's first international arbitration legislation to improve the investment climate. *[Restructuring, Recovery]*

10. ***Strengthening Policies, Institutions, and Investment for Rebuilding Better:*** The World Bank is supporting this pillar through the various DPOs under preparation for delivery in FY21 (Samoa, Tonga – see above; also, Kiribati) as well as planned DPO engagements for FY22 (RMI – new; Tonga and Tuvalu – continuing series). Discussions are also to be held with Vanuatu regarding a new DPO/Cat-DDO in IDA19 (FY21/FY22 delivery). Through DPOs and IPF, the World Bank is helping the PIC9 to literally build back better through support for enhanced building requirements to improve resilience to the significant and frequent natural hazards that PIC9s face. For example, standards for building practitioners and contractors to ensure more resilient building construction were introduced in Samoa. In Tonga, a Housing Sector Resilience Office for resilient housing management and rebuilding was established. These are critical measures that will have sustainable development impacts well beyond the current economic crisis. Finally, the World Bank is continuing to provide advisory services and analytics in a range of sectors, including but not limited to health financing, economic competitiveness, and labor mobility and social protection.

Selectivity, Complementarity, Partnerships

11. To avoid stretching thin client capacity, the Pacific Country Management Unit (CMU) applied a US$5 million minimum to all PIC9 operations under preparation in IDA18 and restricted the IDA18 pipeline to four IPFs and one DPO series per country.[48] These parameters are being tightened to three IPFs and one DPO series per country in IDA19, although the CMU will continue to make exceptions for projects of strategic or critical importance to clients, including to respond to the impacts of COVID-19.

12. The World Bank in the Pacific works closely with Australia, New Zealand, the Asian Development Bank, and other key development partners on macroeconomic policy issues in the region, for example through quarterly meetings of the technical working group on economic policy reform and through the annual Friends of Pacific Budget Support meetings. Providers of budget support to the Pacific continue to take a coordinated approach and agree on joint policy matrices to minimize the burden of required policy actions on clients. In addition, the Pacific Financial Inclusion Donor Group meeting and the semi-annual Private Sector Development donor group meetings are active and regular coordination platforms. Coordination with development partners on the response to COVID-19 has been strong and effective in ensuring non-duplication and/or complementarity of support.

[48] Facilitated by frontloading (in some cases, exceptionally) of IDA18 resources.

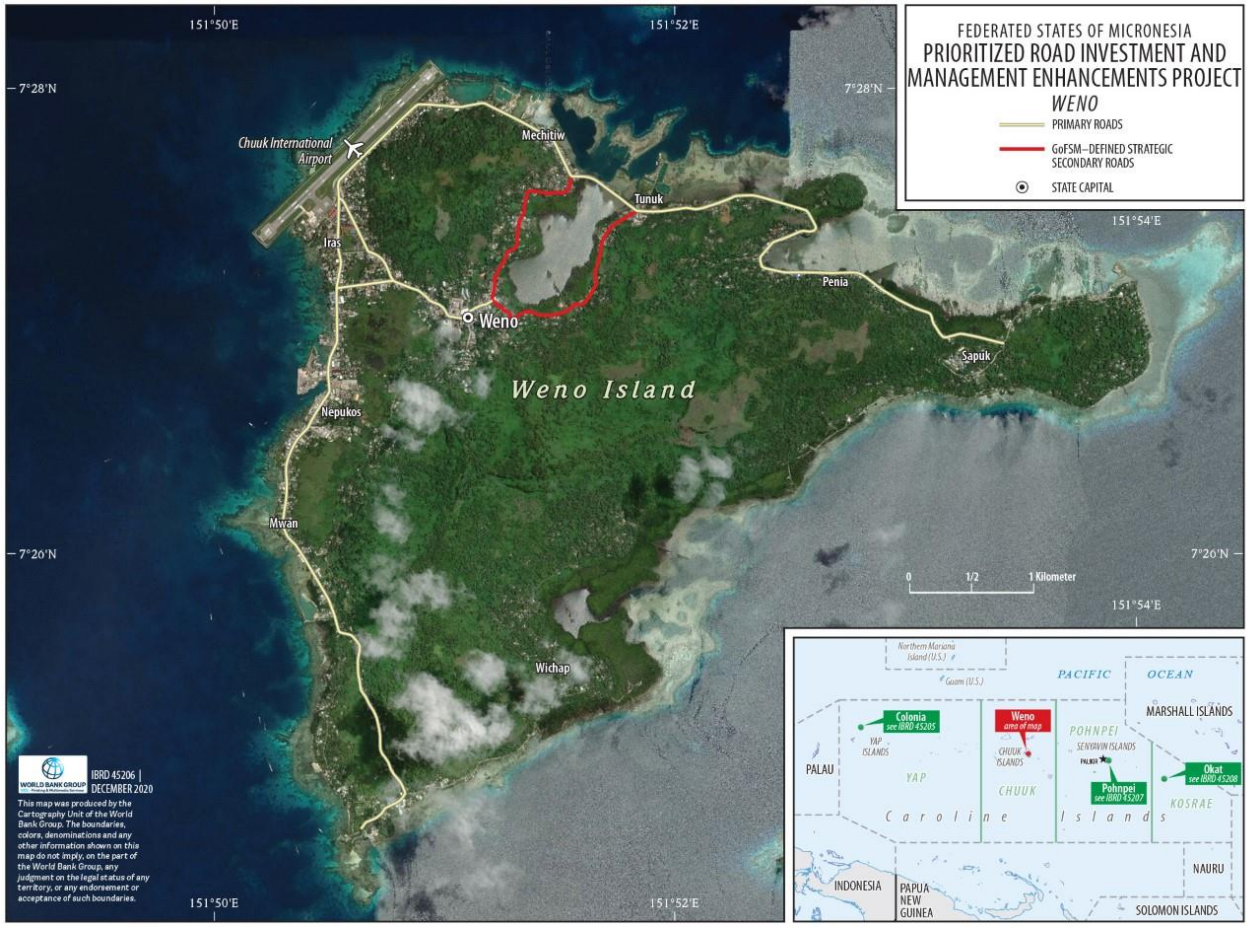
Table 5.1: PIC9 Financing Needs and Sources of Financing

Country	Overall Financing Needs (US$ million)	Domestic Financing (US$ million)	Multilateral Sources (US$ million)	Bilateral Sources (US$ million)	Commercial Sources (US$ million)
Kiribati (CY2020)	41	26 (drawdown on cash reserves rather than borrowing)	5	EU: 3 NZ: 4 Aus: 3	0
Nauru (FY21: year ended Jun 2021)	0 (balanced budget forecast after accounting for debt resolution payments of around 5)	0	0	0	0
Tonga (FY21: Jul 2020 to Jun 2021)	69.7	2.5 domestic bond. 25 drawdown cash reserves	WB: 30 IMF: 9	DSSI: 3.2	0
RMI (FY20: Oct 2019 to Sep 2020)	30.3	2.2 from domestic revenues	ADB: 20.5 WB: 2.5	US: 3.9 Taiwan, China: 1.2	0
FSM (FY20: Oct 2019 to Sep 2020)	35	21.7 from domestic revenues that would otherwise have been used to build fiscal buffers	ADB: 3 WB: 2.5	US: 7.7 China: 0.1	0
Samoa (FY21: year ended Jun 2021)	45	32 drawdown of cash buffers	OPEC and WB: 4	DSSI: 9	0
Tuvalu	7	2	0.4	Aus 2 NZ: 1 China: 2	0
Palau (FY21: Oct 2020 to Sep 2021)	40	20 drawdown in cash buffers	ADB: 20 loan expected	0	0

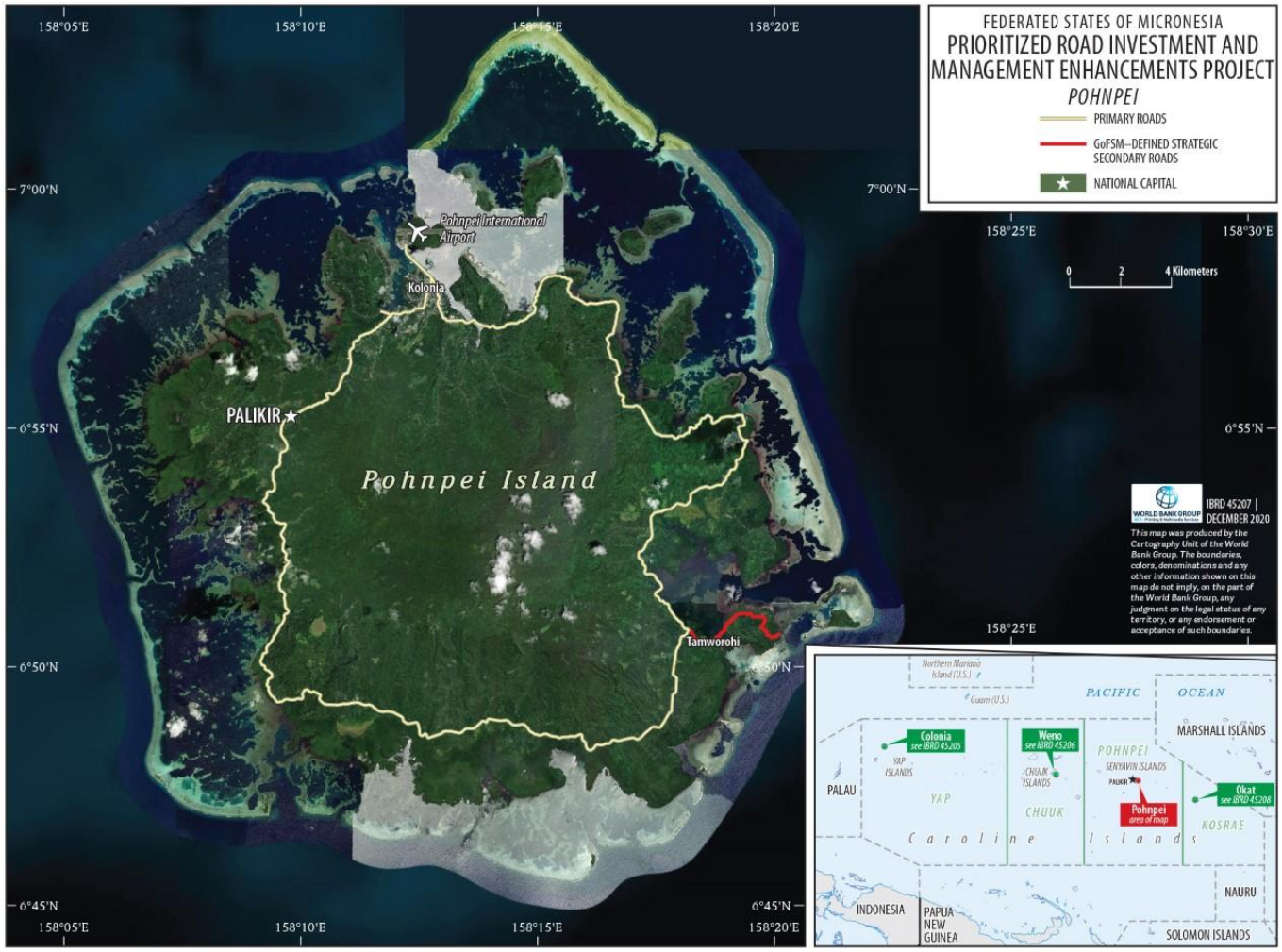
Country	Overall Financing Needs (US$ million)	Domestic Financing (US$ million)	Multilateral Sources (US$ million)	Bilateral Sources (US$ million)	Commercial Sources (US$ million)
Vanuatu (CY2020)	108 (includes planned prepayments of external debt = 18)	12 rollover of domestic debt (assumed). 72 drawdown of cash buffers	WB and ADB: ~ 11	China: ~ 11	0

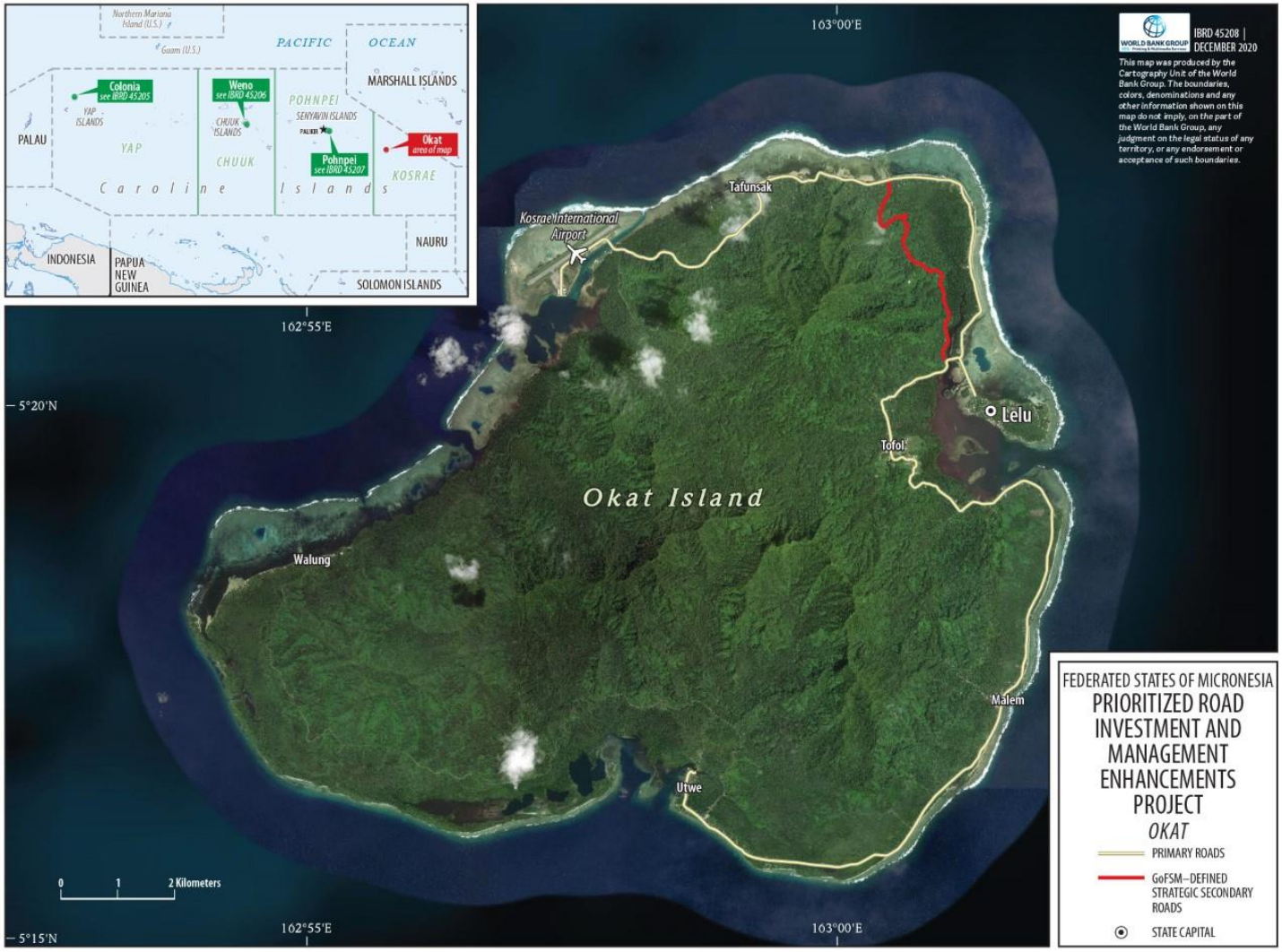
ANNEX 6: Maps of FSM

COUNTRY: Federated States of Micronesia
Federated States of Micronesia Prioritized Road Investment and Management Enhancements Project



FEDERATED STATES OF MICRONESIA
PRIORITIZED ROAD INVESTMENT AND MANAGEMENT ENHANCEMENTS PROJECT
COLONIA
PRIMARY ROADS
STATE CAPITAL
IBRD 45205 | DECEMBER 2020
This map was produced by the Cartography Unit of the World Bank Group. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
138°05'E
138°10'E
138°15'E
138°00'E
9°35'N
9°30'N
Gaqnaqun
Rumung Island
Bechyal
Maap Island
Yap Island Group
Wanyan Beach
Ruu Village
Gagil-Tamil Island
Maaq
Kanif
Yap Island
Colonia
Bugol
Yap International Airport
Baleabaat'
Ngoof
Malaay
Magachgil
0 2 4 Kilometers
Northern Mariana Island (U.S.)
Guam (U.S.)
PACIFIC OCEAN
MARSHALL ISLANDS
Colonia area of map
Weno see IBRD 45206
POHNPEI
SENYAVIN ISLANDS
YAP ISLANDS
CHUUK ISLANDS
PALAU
YAP
CHUUK
Pohnpei see IBRD 45207
Okat see IBRD 45206
KOSRAE
Caroline Islands
NAURU
INDONESIA
PAPUA NEW GUINEA
SOLOMON ISLANDS


FEDERATED STATES OF MICRONESIA
PRIORITIZED ROAD INVESTMENT AND MANAGEMENT ENHANCEMENTS PROJECT
POHNPEI
PRIMARY ROADS
GoFSM–DEFINED STRATEGIC SECONDARY ROADS
NATIONAL CAPITAL
158°05'E
158°10'E
158°15'E
158°20'E
158°25'E
158°30'E
7°00'N
6°55'N
6°50'N
6°45'N
0 2 4 Kilometers
Pohnpei International Airport
Kolonia
PALIKIR
Pohnpei Island
Tamworohi
IBRD 45207 | DECEMBER 2020
This map was produced by the Cartography Unit of the World Bank Group. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
Northern Mariana Islands (U.S.)
Guam (U.S.)
PACIFIC OCEAN
MARSHALL ISLANDS
Colonia see IBRD 45205
Weno see IBRD 45206
Okat see IBRD 45208
POHNPEI
SENYAVIN ISLANDS
YAP ISLANDS
CHUUK ISLANDS
PALAU
YAP
CHUUK
Pohnpei area of map
KOSRAE
Caroline Islands
NAURU
INDONESIA
PAPUA NEW GUINEA
SOLOMON ISLANDS


Northern Mariana Islands (U.S.)
Guam (U.S.)
PACIFIC OCEAN
MARSHALL ISLANDS
Colonia see IBRD 45205
Weno see IBRD 45206
Pohnpei see IBRD 45207
Okat area of map
YAP ISLANDS
CHUUK ISLANDS
POHNPEI
SENYAVIN ISLANDS
PALIKIR
PALAU
YAP
CHUUK
KOSRAE
Caroline Islands
NAURU
INDONESIA
PAPUA NEW GUINEA
SOLOMON ISLANDS
163°00'E
IBRD 45208 | DECEMBER 2020
This map was produced by the Cartography Unit of the World Bank Group. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
Tafunsak
Kosrae International Airport
Lelu
Tofol
Okat Island
Walung
Malem
Utwe
162°55'E
5°20'N
5°15'N
0 1 2 Kilometers
FEDERATED STATES OF MICRONESIA
PRIORITIZED ROAD INVESTMENT AND MANAGEMENT ENHANCEMENTS PROJECT
OKAT
PRIMARY ROADS
GoFSM–DEFINED STRATEGIC SECONDARY ROADS
STATE CAPITAL