I. Introduction and Context

Country Context
Samoa is a small remote Pacific island state, with a population of about 180,000 people. It is approximately 3,000 km from New Zealand, and 4,000 km from Hawaii or Australia. Samoa is one of the relatively richer and stronger performing Pacific island countries, with an average GNI per capita of $2,860. The economy has grown strongly since the early 1990s, underpinned by a stable macro-economic environment and a business friendly investment climate. The country is broadly on track to meet key health and education MDGs. Still, Samoa’s small size and remoteness mean the economy is narrowly based and highly reliant on external factors. Despite gains, Samoa is vulnerable to external shocks and natural disasters — and a series of recent such shocks have dealt the Samoan economy major setbacks. As a result of the food and fuel price spikes, the global slowdown, and the 2009 tsunami (which killed 142 people and caused economic damage equivalent to 10% of GDP), the Samoan economy contracted by over 5% in 2009, although economic activity has since started to bounce back.

As a small Pacific island developing state, Samoa’s vulnerability to climate change is high, and growing. Increases in the frequency and intensity of extreme weather and climate events, such as heavy rainfall, strong winds, droughts and high sea temperatures and levels, are already occurring. In the past, these and other events have caused severe damage to infrastructure and other economic assets and had adverse effects on livelihoods. Such changes and their adverse consequences are projected to escalate in the near and longer terms due to climate change. In addition, vulnerability is heightened by homes, infrastructure and sources of livelihood being overwhelmingly concentrated in coastal areas. 70% of Samoa’s population lives within 1 km of the coast and critical infrastructure (e.g. hospitals, schools, port facilities, power plants, airports, tourist infrastructure) is also located in this zone. Approximately 80 per cent of the 403 km coastline is sensitive or highly sensitive to erosion, flooding or landslip. A major challenge for Samoa is ensuring that climate change does not reverse its hard won development gains, worsening the plight of the most vulnerable sections of the community.

Sectoral and Institutional Context
The focus of this project is on increasing the climate change resilience of the Samoa road network, starting with the most important road corridor in the country. The West Coast Road (WCR) provides a vital land transport link between Samoa’s capital city Apia and, to the west, Samoa’s key international airport Faleolo and the Mulifanua inter-island ferry wharf, which is the main gateway to Samoa’s second important island, Savai‘i. This road corridor is identified as a key national infrastructure asset and investment priority, in both the Strategy for Development of Samoa 2008-2012 and the Samoa Infrastructure Strategic Plan.

The WCR runs parallel to, and in places, immediately adjacent to the coast. It is vulnerable to high rainfall events (leading to surface flooding and deterioration of the road surface) and extreme high sea levels (leading to accelerated erosion of the road profile). In addition, the road surface is compromised, particularly at its eastern end, by a high water table (leading to deterioration of the road pavement). In the long term, an alternative route may be required but investigations carried out under the World Bank-funded Samoa Infrastructure Asset Management Stage II project (SIAM2) has shown that this is an extremely expensive option, involving complex land issues. More than 50% of Samoa’s population and most of its industry is located along the WCR corridor, so, at least in the medium term, the WCR will continue to be Samoa’s most important economic and social transport artery.

The Bank has a long history of engagement with the Samoa roads sector. Over the last ten years, the SIAM program has assisted with reforms to road maintenance arrangements, establishment of a Land Transport Authority (which will be the Implementing
Agency for this project), and with major road projects. This includes the upgrading of Vaitele St, which is an extension of the WCR into urban Apia.

Relationship to CAS

This project aligns strongly with the Bank’s overall approach to the Pacific Islands (as set out in a Pacific Islands Directions note of April 2010). Recognizing the vulnerability and volatility of the small and remote Pacific island states, the Bank Group’s broader engagement in the region is structured around the themes of: (i) generating opportunities through greater global and regional integration, and (ii) building resilience against external shocks, including climate change. The Bank Group is currently in the process of developing individual strategies for each of the Pacific island countries, and a CAS for Samoa is currently being prepared to “custom tailor” the broad regional themes to reflect individual country circumstances. The Bank’s new disaster risk reduction/climate change adaptation (DRR/CCA) strategy for the Pacific, presently under development, is anticipated to reiterate the importance of supporting countries to reduce vulnerability, and will also seek to consolidate the Bank’s strategic priority in this area by developing a framework for integrating DRR and CCA.

II. Proposed Development Objective(s)

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The project development objective is to improve climate resilience of the West Coast Road and strengthen institutional capacity to climate-proof the overall road network of Samoa.

Key Results

Increased resilience of the West Coast Road infrastructure to extreme weather effects - Indicators: Number of road closures or diversions

Improved travel conditions for all road users - Indicators: Number of accidents involving injury or death

Reduced routine and periodic maintenance costs - Indicators: Annual per kilometre maintenance costs

III. Preliminary Description

Concept Description

Component 1. (US$17 million) Improving the Climate Change Resilience of the WCR. Under SIAM2, technical assistance was provided for a detailed feasibility study for upgrading the drainage of the WCR to increase its resilience to extreme weather events. This project will implement the finding and extend the works to include a general rehabilitation of the road profile and surface in the affected areas. The proposed construction works on the WCR will address these recommendations through improvements to the road pavement, including raising and strengthening where necessary, sealing the road shoulders, and improving longitudinal and cross-drainage. These investments serve to:

(a) reduce road closures during extreme weather events and high sea levels;
(b) avoid surface flooding and impounding of water which contributes to road deterioration and impacts adversely on roadside communities;
(c) reduce road deterioration due to runoff and increasingly high water tables, and generally improve pavement quality to reduce future maintenance requirements; and
(d) increase road safety and provide a roadside pathway for pedestrians.

All road reconstruction works are planned to take place within the existing road reserve, but the need to access roadside properties to complete the associated drainage works was identified in the SIAM2 study. Technical assistance will also be provided for detailed design and supervision of the WCR works. This component will also include a single consultant who will be responsible for design and supervision.

Component 2. (US$0.5 million) Vulnerability Assessment of the Samoa Road Network. This component involves technical assistance to assess the climate change vulnerability of the main road network of Samoa as a whole, and prepare a climate resilience strategy for the road network. This will involve using best available climate change information to identify key hazard types and risk levels (sea level rise, cyclones, extreme rainfall and temperature events, etc), and then assessing the likely severity and timing of risk impacts for all links of the road network. Based on this analysis, the study will then prepare a road network adaptation strategy that will identify specific locations that will require investments to improve the resilience of the road network, and measures to upgrade design and planning standards taking into account expected climate change.

Component 3. (TBD) Project Management; Monitoring and Evaluation; Operating Costs. Recognizing the limited capacity in Samoa and following the satisfactory arrangements of SIAM2, technical assistance for project management may be provided. The PMU team would assist with the project’s financial management, the preparation of procurement documentation, and monitoring and evaluation of results and indicators. Incremental operating costs would also be financed under this component. However, in recent years LTA has been successful in managing a budget of approximately US$10 million annually, so it may have the capacity to manage this project in-house. This component will be finalized by appraisal.
### IV. Safeguard Policies that might apply

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### VI. Contact point

**World Bank**

Contact: Demetrios Papathanasiou  
Title: Senior Infrastructure Specialist  
Tel: 5740+6522  
Email: dpapathanasiou@worldbank.org

**Borrower/Client/Recipient**

Name: Ministry of Finance  
Contact:  
Title:  
Tel:  
Email:  

**Implementing Agencies**

Name: Land Transport Authority  
Contact: Michael Anderson  
Title: Project Component Manager  
Tel: (+685) 26740  
Email: info@lta.gov.ws

### VII. For more information contact:

The InfoShop  
The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 458-4500  
Fax: (202) 522-1500  
Web: http://www.worldbank.org/infoshop