



Addressing the needs of the community and planting the seeds for a secure future

- Improved living standards and enhanced public satisfaction resulting from improved asset performance and subsequent improvements in service levels.
- Improved financial planning and financial controls with respect to infrastructure assets.
- Higher returns on infrastructure investments.
- Assured long-term sustainability of asset performance and service levels.



The Pacific Region Infrastructure Facility (PRIF) assists Pacific countries to plan and manage their infrastructure assets. An important component is the development of infrastructure asset management frameworks, which set policies, strategies and plans to improve practices and procedures. The key aim is to achieve better value for money from all public infrastructure investments for the citizens and residents of a country.



Developing an Infrastructure Asset Management Framework

A good Infrastructure asset management framework integrates planning, finance, engineering, maintenance and operations functions. It generally includes policies, strategies, plans, processes, institutional organization and systems, among other tools, depending on the specific needs of the country.

The framework is geared towards managing existing infrastructure and planning for new infrastructure assets. Implementing the framework will reduce operational risks and provide safe and reliable infrastructure services to a country's population.

Integrated processes allow optimal levels of financial and operating performance to be achieved, using transparent and objective criteria that can be easily audited and inspected by all stakeholders and decision makers.

Tuvalu's 26km² incorporates three islands and six atolls, home to a total population of 10,000.

Catering to Tuvalu's unique circumstances, the Tuvalu Asset Management Framework assists the Government to provide appropriate services to the community.

The policies, strategies and plans developed with PRIF's assistance cover all physical infrastructure assets valued \$10,000 or greater and owned by the Government, local authority (Kaupule) and/or major public sector enterprises in the nation, including electricity, water supply, sanitation, transport (roads, maritime, air), ICT, buildings and other major infrastructure.

Why an Asset Management Framework?

- Provides accurate and timely information on assets to help the government to plan smarter
- Assists finance ministries with planning and budgeting for capital investments, capital maintenance and recurrent maintenance expenses
- Assists the Disaster Management Office to identify assets that are in poor condition and therefore at risk of collapsing with natural hazards
- Enables infrastructure ministries to plan and budget for maintenance and future capital investments to serve the community.



Photos courtesy of PRIF Members.

Getting the most from Tuvalu's assets

Maintaining high rates of return for Tuvalu infrastructure investments while providing appropriate quality of services to the community.

The overarching objective of the Tuvalu Framework is to find the right balance between capital investments and operating and maintenance costs, so that the combined life cycle cost of assets is minimized.

The Framework also includes an evaluation of risk of assets not achieving the required service level. The risk of failure to meet the performance specified by the prescribed service level, is indicated on a numeric scale of 1 to 100 and is referred to as the "asset health index".

The asset health index is computed from three inputs:

- service level indicator, representing the assets' historic performance over recent years;
- physical condition indicator, representing assets' current physical condition; and
- climate change vulnerability indicator, representing the risk of assets' sudden failure due to a climate change induced event.

The index is included in the asset register and it informs the appropriate action required by the line ministry, for example: conduct maintenance, prepare business

case for rehabilitation or organise and budget asset disposal.

The Framework covers the full life cycle of fixed infrastructure assets, from preparation of specification and installation standards to the scope and frequency of preventative maintenance during its service life to the final determination of the assets' end-of-life and retirement from service.

At each stage of the asset's life cycle, the Government of Tuvalu now has the data to make informed decisions to achieve the best equilibrium between achieving maximum life expectancy, highest operating performance, lowest initial investment (capital costs) and lowest operating costs.

The completion of the Framework will greatly improve the efficiency of the national planning and budgeting processes. PRIF is also working with the Government of Tuvalu and the Pacific Financial Technical Assistance Centre (PFTAC) to develop a multi-year capital budgeting framework that will link the Asset Management Framework and the Tuvalu National Infrastructure Strategy Plan with the budget process.



Asset registers

The Government of Tuvalu has developed an asset register for all major assets in the country. The register contains asset replacement costs, depreciation estimates, annual maintenance cost requirements, among other critical information for the functions of planning and finance. Additionally, it includes assessments for asset condition, climate change vulnerability and resilience. The condition assessment methodologies developed during the project are simple and concise, comprising practical tables for simple, visual assessments and guidance to inform forward planning and budgeting processes.

"PRIF support was much appreciated throughout the development of the Tuvalu Asset Management Framework and the asset register. They also provided training to all infrastructure oriented government departments so that the register can be updated and the

framework implemented. Apart from guiding asset maintenance plans, the tools are crucial for other areas such as planning and budgeting. In fact, we will work with PRIF again in 2019 to link the Tuvalu Asset Management Framework and the Tuvalu Infrastructure Strategy

and Investment Plan with our budget by developing a Medium Term Capital Budgeting Framework to inform 2020's budget process."

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