Coastal Protection in Savusavu, Fiji

City Climate Finance Gap Fund

Savusavu, Fiji

CURRENT CHALLENGES AND SOLUTIONS

Savusavu town, located in Cakaudrove Province on the southeastern side of Vanua Levu, Fiji, faces significant challenges due to extreme weather and natural disasters, particularly in the coastline of Savusavu town. These includes elevated sea levels, heavy rainfall, wave impacts, and cyclones, which are expected to exacerbate over time. The impacts include inundation of the town and roads, soil erosion, coastal road destabilization, and exposure of buried conduits. There is very little remaining land between the road edge and the foreshore making it unsafe for pedestrians and traffic.
The Gap Fund supported the municipality of Savusavu for a pre-feasibility study on coastal protection along the coastline, with emphasis on nature-based solutions (NbS).

The NbS approach provides dual benefits of effective protection and ecosystem health resilience in Savusavu. These benefits include improved design standards for coastal protection, enhanced ecosystem services, shoreline stabilization, increased habitat, climate regulation and carbon dioxide absorption (blue carbon), biological control, more effective erosion control for localized areas, improved environmental consequences, and a net benefit in natural capital.

OBJECTIVE OF THE INTERVENTION

The goal of the Gap Fund's intervention was to quantify coastal hazards and future impacts to support coastal protection assessments, aiming to reduce sea level rise and coastal erosion thereby ensuring climate adaptation over time.

Savusavu, Fiji

THE GAP FUND'S SUPPORT

The intervention included:

1. Preparation of a coastal risk assessment to identify areas, structures, and infrastructure exposed to risks based on zoning maps.
2. Identification of technical design requirements for coastal protection measures, including boulders and geo-tech materials.
3. Analysis of the co-benefits of coastal protection infrastructure, including an economic cost-benefit analysis.
4. Development of a preliminary financial analysis and costing, including maintenance and operation costs.
5. Assessment of possibilities for upscaling and funding options.

Sector

Green Spaces & Urban Infrastructure

Project stage

Prefeasibility

Idea — Implementation

75,895

people (including tourists) will directly and indirectly benefit

€ 318,006 €

Investment value (Estimate)

THE INTERVENTION AT A GLANCE

The study quantified coastal hazards and future impacts to support an assessment for coastal protection.

The following coastal protection interventions were identified for Savusavu:

- A holistic NbS approach was used to combat shoreline erosion by dividing the area into zones and implementing tailored green and hybrid solutions.
- Measures included planting vetiver grass, restoring mangroves, establishing oyster reefs, and designing an NbS seawall out of local material.
- Preliminary designs for walkways improved safe shoreline access, showcasing NbS as a means to enhance resilience, infrastructure, and general community well-being.

CO-BENEFITS OF THE INTERVENTION

- Increases the value and marketability of Savusavu town as a tourist destination.
- Enhanced recreational value of the Savusavu coastal areas.
- Improve urban mobility for the general population.
- Expand business areas for Savusavu and provide opportunities for increased economic activities.
- Improve livelihood and overall wellbeing of local communities.

FINANCIAL PATHWAYS

The Pacific Ecosystem-based Adaptation to Climate Change Plus (PEBACC+) program, under the Secretariat of the Pacific Regional Environment Programme (SPREP), will implement some of the identified NbS measures.

The World Bank's Fiji Tourism Development Program in Vanua Levu is developing an Integrated Tourism Masterplan for Savusavu Town, which will incorporate findings from the prefeasibility study.

Future funding options for coastal protection work in Savusavu include three financial pathways: multilateral development banks (MDB), bilateral aid, and government budgetary allocation.

LESSONS LEARNED

- Effective collaboration and partnership among stakeholders and agencies are crucial. Sharing technical expertise and information ensures that the outcomes are contextually appropriate for Savusavu.
- A clear understanding of the governance structure at both city and government administrative levels is important for successful project implementation and stakeholder reception.

SCALE-UP AND REPLICATION POTENTIAL

To effectively scale up coastal protection in Savusavu and other cities in Fiji, an innovative national strategy focused on NbS and coastal resilience is required, emphasizing the protection of coastal populations.

The prefeasibility study provides good ground for the Savusavu Town Council to further communicate to donors the needs and possible interventions for coastal protection.

NEXT STEPS

- Capacity building for stakeholders in project proposal development, design, management, and maintenance of NbS is crucial.
- Using data from the prefeasibility study, stakeholders can create investment proposals.
- The Savusavu Town Council to further exchange with potential donors to seek funding for the implementation of the remaining interventions.

TA PARTNER AND BENEFICIARIES

SAVUSAVU TOWN COUNCIL

TA IMPLEMENTED BY

EPAC Eco-Pasifika Consulting

JBP scientists and engineers

THE GAP FUND IN A NUTSHELL

Since its launch in 2020, the City Climate Finance Gap Fund provides technical assistance to cities in low- and middle-income countries to support the early preparation of climate-smart infrastructure projects, including energy, transport, waste, water, wastewater and nature-based solutions (NbS).

Find more about the City Climate Finance Gap Fund on: City Climate Finance Gap Fund

For additional information, please contact:
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Summary of a working document of the TA for Coastal Protection using Nature-based Solutions (NbS) in Savusavu, Fiji

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