VANUATUPACC Country Brief

Pacific Adaptation to Climate Change

Demonstrating the integration of climate change risk reduction in road design in Epi, Shefa Province

The Pacific Adaptation to Climate Change (PACC) project is supporting the integration of climate change risks into policy frameworks and the implementation of community-based adaptation measures in 14 countries throughout the Pacific. These actions are intended to increase resilience in three key development sectors: water resource management, coastal zone management, and food production and food security.

In Vanuatu the adverse effects of increased precipitation and flooding, intense wave action, and coastal erosion have degraded national roads in many coastal communities. Despite regular maintenance and rehabilitation by the government, a number of sections of the roads in Epi urgently require attention.

In response, the PACC Vanuatu project will assist the Government of Vanuatu and key stakeholders in Epi to develop capacity to design and implement improved roading infrastructure in order to increase resilience to climate change-related risks.

Issues

Epi Island, 100 kilometres north of Vanuatu's capital Port Vila, is home to over 7000 Ni-Vanuatu: farmers and fishermen, tourist operators, airfield staff, and 100 high school students from the island's hinterland. Epi Island is currently connected by approximately 66km of roading that runs mostly along the island's coastline. The roads are rutted and potholed, and cover difficult terrain, and the landing strip at the airport has been seriously eroded.



Collapsed bridge on Epi's west coast Photo: PACC

The convergence of inaccessibility on the airports, roads, villages and hospital of Epi Island is putting the local population at risk in the case of medical emergency. Furthermore, Epi's two airports are an important resource for medical evacuations, not just for the residents of Epi, but also for nearby islands in the wider province of Shefa - dependent on the referral hospital.

Poor roading conditions also negatively impact agricultural production on the island. Operations such as peanut farming and the production of copra to supply a newly built bio-diesel mill are dependent on serviceable roads - something that the community cannot depend on in the rainy season. Moreover, precipitation has increased and the rainy season has extended into the dry season over the last twenty years. In response to this climate-related transport pressure, the PACC Vanuatu project has selected Epi as an opportunity to reduce vulnerability and increase resilience to climate change.

Actions

PACC Vanuatu is working to integrate climate change risk reduction in road design and enhance resilience by relocating coastal roads, rehabilitating sea walls and protection barriers, and protecting the coastline through re-vegetation of native species which will act as natural buffers against cyclones and sea-level rise.

Policy mainstreaming:

The first of the PACC outcomes is devoted to mainstreaming. The PACC approach to

mainstreaming has a dual purpose: 1) to strengthen the ability of institutional frameworks, policies and plans to take climate change risks into consideration and 2) to improve the capacity of key national government and community decision-makers to integrate adaptation measures in key decisions.

PACC Vanuatu objectives and efforts have linked with Vanuatu's National Sustainable Development Strategies: the Priority Actions Agenda (PAA), the Supplementary Priority Actions Agenda and the Actions Agenda (2009-2012).

The PAA (2006-2015), "An Educated, Healthy and Wealthy Vanuatu", was created by the Department of Economic and Sector Planning, in the Ministry of Finance and Economic Management. The PAA is an integration and prioritisation of action agendas contained in already accepted and ongoing national and provincial programs. The overall objective is to link policy and planning with the limited resources the government controls - ensuring that the most urgent and important outcomes of these programs are achievable in the



Country Summary

Country: Vanuatu

Thematic Sector:
Coastal zone management

Project Funding Source: GEF-Special Climate Change Fund

National budget allocation: GEF-SCCF: \$750,000

Co-financing:
Government of Vanuatu:
\$2.900.000

Programme Period: 2009-2014

Target area: Epi Island, Shefa Province

National Implementing Agent: Department of Environment and Conservation, Ministry of Lands and Natural Resources, Government of Vanuatu

National Implementing
Partners: Vanuatu
Meteorological Services and
Public Works Department

Regional Implementing Partner: SPREP

Implementing Agency: UNDP





Roading on Epi Island. Photo: Gabor Vereczi

medium term. PACC Vanuatu's efforts are informed by the PAA and the identified need to improve the lives of the people in rural areas. The PAA suggests that this could be achieved by improving service delivery, expanding market access to rural produce, and lowering costs of transportation. PACC Vanuatu is directly involved in making this happen.

Through the PACC project, a National Roading Plan that takes into consideration current and long term changes in climate will be developed. This will be carried out in partnership with key national and interested donor communities.

Community-based adaptation:

The second PACC outcome is to design and demonstrate innovative decision systems, approaches, technologies and practical measures to improve climate-resilience. Through a combination of measures in Epi, climate-induced degradation and erosion of coastal areas and infrastructure is being reduced by reinforcing existing coastal infrastructure. Some of the concrete actions to climate proof the roads include: building protective coastal structures, planting coastal vegetation, and reinforcing existing coastal infrastructure (to include proper drainage).

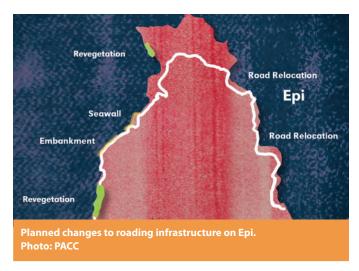
As an example of the protective coastal structures that are being built or reinforced, the Rovo Bay sea wall is being rehabilitated over its 51m length, including stabilisation and protection of the foundation of the existing concrete retaining wall. The 98m road embankment protection barrier in Yapuna (Loter point) is also being constructed.

Coastal vegetation is being planted in Malvasi, Yavali, and Ponkovio. Relocating coastal infrastructure includes designated road sections and one airport landing strip to less-exposed areas. The roading project will be comprised of 584m of relocation by Nikaura, 578m of relocation by Moriu, 490m of relocation by Wambe/Metano Point, 3km of relocation in Prilmalko (Tavio - Prilmalko Village the north east coast of Epi) to Lokoboe, and 422m of relocation by Nivenue. Finally, the Lamen Bay airstrip will be relocated 15m inland to limit erosion and the attendant difficulties for airplanes.

Additionally, PACC Vanuatu has been involved with trainings on project administration and management, including socioeconomic and cost-benefit analysis, and communications training (comic story, photo-story, video, project briefs, newsletter support). PACC Vanuatu is also supporting the development of a Communication Action Plan to guide, awareness raising, increase project visibility and also the impact of the project to other communities in Vanuatu, the region and globally.

Impacts

The key impact for the PACC Vanuatu project is to implement long term adaptation measures that will protect the communities and preserve the livelihoods of the people living in Epi and the surrounding islands. By improving the resilience of the roading infrastructure against the negative impacts of coastal erosion, PACC Vanuatu will improve the health of the local community



(by ensuring better access to the hospital), support agricultural production (by supporting the transportation of crops to market), and preserve livelihoods (by ensuring that communities are able to sell their crops and bring revenue to the local economy).

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