

SAMOA

Community-based adaptation to flooding

Grantee: Avao, Vaipouli and Salei'a village committee

Type of organization: CBO

Number of participants: 700

Location: Gagaemauga District III, Samoa

CBA Contribution: 25,000 USD per village

Project Partners: GEF SGP, AusAID, Ministry on Natural Resources and Environment

Co-financing: The Government of Australia (25,000 USD per village), Community contribution (9,500USD)

Project Dates: July 2009 – January 2011

BACKGROUND

The Community-Based Adaptation Programme (CBA) is a five-year United Nations Development Programme (UNDP) global initiative funded by the Global Environmental Facility (GEF) within the Small Grants Programme (SGP) delivery mechanism. The UN Volunteers partners with UNDP and GEF/SGP to enhance community mobilization, recognize volunteers' contribution and ensure inclusive participation around the project, as well as to facilitate capacity building of partner NGOs and CBOs. In addition, funding is provided by the Government of Japan, the Government of Switzerland and the Government of Australia. The CBA's goal is to strengthen the resiliency of communities addressing climate change impacts.

This CBA project aims at reducing the vulnerability of Samoan villages Avao, Salei'a, Vaipouli and their surrounding ecosystems to the adverse

impacts of climate change. Samoa is an archipelago situated in the South Pacific, consisting of two large mountainous islands, Upolu and Savai'i, and seven other small ones. The economy is dependent on remittances, tourism, development aid and agricultural exports. The project site is located in the northern most point of the island of Savai'i where there is a rainy season from October to March and a dry season from April to September. This site is home of threatened ecosystems including coral reefs and mixed herbaceous coastal marsh. Both endangered and endemic species of significant global importance are present in the ecosystems. The population is just over 700 people, in about 100 households, who depend on agriculture and fishing as their main sources of income and livelihood. The villages front the sea with two reef breaks approximately 60 meters from the shoreline. In addition to extreme high tides and cyclones, the villages suffer from flash flooding during heavy rains. Several times a year, flooding from the stream and wetland causes severe damage to the villages.



Plantation affected by flooding

CLIMATE CHANGE RISKS

Climate change projections for Samoa forecast an increase in average temperature, a rise in sea level, an increase in the intensity of tropical storms and cyclones and a decrease in precipitation, but with more frequent occurrences of high intensity rainfall events. Since the 1990's, climate change impacts such as flooding and coastal erosion have been heavily felt in the project sites. Cyclones Ofa and Val contributed to the erosion of more than 20m of coastline, and affected more than 800m of coastline near these villages. Additionally, all the homes on the seaward side of the main coastal road were destroyed by the storms. Now, these villages only have approximately 100m width of land for residential settlement between the coast and the wetland/stream. The increasing intensity of rainfall has brought regular flash flooding in this area resulting in damage to the homes of families living along the stream pathway, and siltation of the coral reef leading to coral degradation and smaller fish catches. Inland flooding is driven by a number of baseline factors, including the clearing of the watershed area for plantations and livestock farms, but has been exasperated by the effect of climate change.

PROJECT DESCRIPTION AND ADAPTATION MEASURES

The CBA project aims to reduce the vulnerability of these three villages and their ecosystems to the adverse impacts of climate change by building community capacity and by providing the necessary infrastructure to protect livelihoods and ecosystems. The local adaptation strategy emerged from the Samoan Coastal Infrastructure Management Plan consultants for the district of Gagaemauga III. It was a participatory process involving all sectors of the villages. The project was designed to address both community and ecosystem resiliences by achieving the following outputs:

- Putting in place a retaining rock wall, strengthening vegetation barriers and clearing the stream pathway to increase the resilience of coastal ecosystems to climate change impacts
- Implementing a reforestation programme to rehabilitate terrestrial ecosystems to reduce climate change risks
- Developing community capacity for adaptation through an awareness raising programme

The project also proposes to replant mangroves and to rehabilitate coastal marshlands, which will provide an important natural filtering system needed to reduce siltation of the inshore reef that can kill corals. The retaining wall is not only a way to protect the community against climate risks, but will also allow residents to replant farmland closer to their homes.



A retaining stone wall to protect the coastal ecosystems from flooding

FOCUS ON...

Global environmental benefits

The project will put under protection all the endangered bird species in the area by banning shooting within and around the project sites. As a whole, the project will protect or sustainably manage 46 hectares of globally significant biodiversity area. It will also protect 10 plant species of global importance, and restore 10 hectares of degraded land.

Community ownership and sustainability

Residents of Avao, Vaipouli and Salei'a, including women and young men, are making an important contribution to the implementation of the project by volunteering their time, knowledge, labour and materials. Once the activities have been completed, the village councils will take over the maintenance of the works with the village mayors and their committees tasked with regular monitoring.

Policy influence

Within the framework of the project, the Village Council, as the main decision-making body at the village level, is expected to pass a regulation on the prohibition of dumping rubbish into the wetlands of the villages.

For more information about CBA or CBA projects visit: www.undp-adaptation.org/project/cba

Further information, lessons learned, and experiences gathered from climate change adaptation activities globally can be found at the Adaptation Learning Mechanism: www.adaptationlearning.net

