



Community-Based Adaptation FAST FACTS

SAMOA

Community-based adaptation to flooding and sea level rise in Fagamalo village

Grantee: Fagamalo village

Type of organization: CBO

Number of participants: 700

Location: Fagamalo, Gagaemauga District
III, Samoa

CBA Contribution: 25,000 USD

Project Partners: GEF SGP, AusAID,
Ministry of Natural Resources and
Environment, Community of Safai'i village

Co-financing: AusAid (25,000 USD),
Community contribution (6,000 USD)

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 Samoa's Fagamalo village and its surrounding ecosystems from the impacts of climate change. Samoa is an archipelago in the South Pacific, consisting of two large mountainous islands, Upolu and Savai'i, and seven other small islands. The majority of Samoan people live within one kilometer of the coast leaving them highly vulnerable to climate change hazards such as flooding and sea level rise. This holds true for Fagamalo village located in the northern most point of the island of Savai'i. This site is home to threatened ecosystems including coral reefs, mangroves and mixed herbaceous coastal marsh. The marine biodiversity includes over 40 coral species and 60 fish and marine invertebrates. Fagamalo's 700 residents depend largely on plantations and fishing for their livelihoods. The village fronts the sea with the outer reef break approximately 200 meters from the beach. Due to its proximity to the coast, Fagamalo and its wetlands are vulnerable to climate variability and extreme weather patterns that can result in coastal erosion and flooding. Cyclones, like those of the 1990's, can cause damage to critical ecosystems, agricultural crops, livestock and homes leaving areas unsafe for permanent habitation.



Mangrove seedling growing in Fagamalo

CLIMATE CHANGE RISKS

Climate change projections for Samoa predict an increase in average temperatures, a decrease in total precipitation, more high intensity rainfall events, a rise in sea level, and a perceived increase in the severity of tropical cyclones. During the rainy season, coastal erosion and flooding events have adversely impacted the project area. Beginning in the early 1990's, climate change started to be felt in this part of the country. The village is now facing rapid coastal erosion driven by increasing storm intensity and declining resilience of buffering coral ecosystems and littoral plants. As a result, homes that used to be located farther from the sea are now closer to the coast. In addition to coastal erosion, erratic and heavy rainfall results in the flooding of over 70% of the village area, damaging homes, crops, livestock and roads. Faced with heightened climate change risks, residents who rely upon natural ecosystems will find it increasingly difficult to sustain their livelihoods.

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PROJECT DESCRIPTION AND ADAPTATION MEASURES

The CBA project seeks to reduce the vulnerability of Fagamalo village and its surrounding ecosystems to adverse impacts of climate change in general, and to flooding and coastal erosion in particular. The project emerged from the Samoan Government's Coastal Infrastructure Management (CIM) planning initiative. It was prepared through a participatory process involving all segments of the community. The project is designed to increase the adaptive capacity of the community to climate change through the following activities:



Wetland behind the village of Fagamalo

- Upgrading the current walking path to an unsealed access road to expedite upland evacuation when cyclones, high waves and flooding affect the village. This will also act as a natural barrier to wetland flooding, while reducing pollution by stopping the dumping of rubbish behind homes, and will help rehabilitate and improve the habitat of marine and wetland species
- Removal of the existing rock jetty to allow for the natural flow of sand and inshore currents, thus reducing coastal erosion and associated effects on the coral reef

The project also contains an awareness-raising programme to help community members better understand climate change and its associated risks and impacts. All together, these activities will provide the village with human and infrastructure capacities necessary to increase the resilience of the ecosystems and households to climate change variability.

FOCUS ON...

Global environmental benefits

The project will protect all endangered bird species in the area by banning shooting within and around project sites. It will also ban on the cutting of mangrove trees to allow them to grow continuously, and it will ban the disposal of waste into the wetland. As a whole, 62 hectares of globally significant biodiversity area will be protected or sustainably managed by the project. In addition, ten species of globally significant species will be protected, and ten hectares of degraded land will be restored.

Community ownership and sustainability

The Village Project Committee assisted by the Village Mayor is responsible for the overall implementation of the project. The female committee members and young men will play an essential role by volunteering their time, knowledge, labour and materials. At the completion of the activities, the Village Council has agreed to take over the maintenance of the works with the Village Mayor and his committee tasked with regular monitoring.

Policy influence

Fagamalo is considered to be highly threatened by climate change. The successful implementation of adaptation measures will encourage their replication at the regional level and help elevate them into national climate change adaptation policies and projects such as the regional GEF-funded Pacific Adaptation to Climate Change (PACC) Project.

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

