



# Community-Based Adaptation FAST FACTS

## SAMOA

### Increasing community resilience to flooding and sea level rise

**Grantee:** Satoalepai Village Council

**Type of organization:** Local authority

**Number of participants:** 400 (50 households)

**Location:** Satoalepai and neighbouring villages, Gagaemauga III district.

**CBA Contribution:** \$30,000 USD

**Project Partners:** Satoalepai Village Council, AusAid

**Co-financing:** AusAID (\$30,000 USD), community contribution (\$5,000 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 AusAID. The CBA's goal is to strengthen the resiliency of communities to address climate change impacts.

This CBA project "Increasing community resilience to flooding and sea level rise" focuses on Satoalepai and its neighboring villages in the Gagaemauga

district in Samoa. Samoa is an archipelago in the South Pacific composed of two large mountainous islands, Upolu and Savai'i, and seven other small islands. The majority of Samoa's 220,000 people lives within one kilometer of the coast and are extremely vulnerable to climate change, particularly to sea-level rise and extreme events such as cyclones. Its economy relies heavily on natural resource-dependent industries, such as ecotourism and agriculture. The project area is located in the isolated Satoalepai community on Savai'i Island. Satoalepai residents depend mostly on agriculture and fishing for their incomes and livelihoods. The village is located between the ocean (with the outer reef 400 meters from the beach) and large inland wetlands, made of coastal swamp and mangrove forest. These wetlands are essential to local livelihoods, such as subsistence farming and fishing, and harvesting of wood resources. Devastating climate events, such as the cyclones of 1990 and 1991, have made it increasingly difficult for the community to practice their traditional economic activities and the area is at risk of becoming unsafe for permanent habitation.



*The project aims to increase the resilience of the Satoalapai wetlands, which are essential to local biodiversity and community livelihoods.*

### CLIMATE CHANGE RISKS

Samoa is likely to be increasingly impacted by climate change, which is projected to increase extreme events. Since the 1990s, climate change impacts have been increasingly felt in the form of devastating cyclones, increased flooding, heavy rainfall, and rising sea levels. Local climate change impacts include coastal erosion, soil and water salinisation, and biodiversity losses, all of which threaten livelihoods. The project area, located between the sea and inland wetlands, is particularly vulnerable, since increased flooding in the wetlands and irregular flows of water between the sea and the wetlands affect the use of the wetlands as a fish nursery ground, and increase siltation. Inland migration has increased as locals seek safer areas and better soils for farming and those who remain near the coast are at risk from cyclones as the main escape route floods during heavy rains.

### LOCAL VOICES

*Samu Samu, 29, has lived in Satoalepai his entire life. To feed his wife and two children Samu nets tilapia and traps crabs in the wetlands. When he catches extra fish or crabs he sells them to pay his childrens' school fees. Samu says that he has noticed wetland waters rising and that sometimes after heavy rains the village road floods, blocking access to residents' plantations. He believes that bigger culverts are needed for water to flow freely to the ocean.*



## PROJECT DESCRIPTION AND ADAPTATION MEASURES

The project seeks to reduce the vulnerability of the Satoalepai community to climate change by reinforcing the resilience of the local wetland ecosystem. The project emerged from the Samoan government's Coastal Infrastructure Management (CIM) planning initiative and was formulated collectively by representatives of all segments of the community. The program seeks to achieve the following results:

- Upgrade the village access road with the installation of box culverts to help water flow more freely during heavy flooding. This will help protect the community from increasingly devastating floods and reduce inland migration by farmers;
- Rehabilitate fragile wetlands in the coastal swamp and replant wetland plant species in the mangrove forest to improve ecosystem resiliency;
- Improve water flow within wetlands to help protect homes and farms from flooding and reduce salinization due to rising sea levels;
- Increase adaptive capacities with a focus on increasing climate change awareness, and improving local resource management practices, including biodiversity protection and adaptive land and coastal management.

The project is designed to address both community and ecosystem resilience. Lessons learned from project implementation will be shared regionally, nationally, and globally to contribute to developing adaptive solutions at all levels.



Box culverts help water flow more easily during severe flooding

### FOCUS ON...

#### Global environmental benefit

*The project will promote sustainable natural resource management, including biodiversity protection and adaptive coastal land management. The project will also protect globally significant species, rehabilitate the fragile wetlands, and replant mangrove forests to increase the resilience of the unique local ecosystem to climate change risks.*

#### Community ownership and sustainability

*The community of Satoalepai has played an important role in the formulation of the project. Residents are resolved to commit their time, labour, knowledge and materials for project implementation. At the completion of the project, the Village Committee will take over maintenance with the village mayor and his committee tasked with regular monitoring.*

#### Policy influence

*As it emerges from the Samoa Country Programme Strategy, the lessons learned from the implementation of the project will be mainstreamed into regional and national policies.*

For more information about CBA or CBA projects visit: [www.undp-adaptation.org/project/cba](http://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](http://www.adaptationlearning.net)

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