

Goal of Approach:

The ability of Pacific Islanders to achieve food security is affected by population growth, rural-urban migration, deforestation, and soil erosion. Changes in distribution of rainfall and an increase in frequency and/or intensity of extreme weather events, when combined with these non-climate change factors, will heighten food security challenges faced by Pacific Small Island Developing States over coming decades.

In partnership with the Secretariat of the Pacific Community (SPC), the U.S. Government will strengthen food security among farming communities in Fiji, Kiribati, Samoa, Solomon Islands, Tonga, and Vanuatu and therefore reduce loss and damage associated with the adverse effects of climate change. The program will build scientific and technical capacity to apply Geographic Information System (GIS) land-use, forestry and soil mapping techniques in order to make informed decisions to improve the climate resilience of terrestrial food production systems. This partnership will also implement innovative techniques and management approaches to increase the climate change resilience of terrestrial food production systems.

Input provided by: United States (USAID/Barbados)

Main elements of the implementation strategy

The program seeks to improve land use mapping and the application of GIS tools and techniques in Fiji, Kiribati, Samoa, Solomon Islands, Tonga, and Vanuatu to identify key areas of food supply vulnerability and to monitor vegetation and land cover change over time. Main elements of the strategy include:

- Developing customized GIS systems, operated at the national level and hosted by the ministry responsible for agriculture, or another ministry nominated by the government.
- Establishing a regional GIS technical support network to ensure that GIS systems can be supported and updated on an ongoing basis after the completion of the project.
- Using GIS data on land use to generate maps, which will allow for the identification of the volume and location of specific agricultural products that are critical for Pacific island food security (e.g., bread fruit, pandanus) and form baseline information for the development and implementation of adaptation measures.
- Providing in-country training and technical assistance to government officials and technical specialists to utilize analytical tools, such as data collection and management, GIS, cost-benefit analysis, and socioeconomic impact assessments, to inform adaptation decision-making.

The program also seeks to strengthen climate-resilient terrestrial food production systems among farming communities in Fiji, Kiribati, Samoa, Solomon Islands, Tonga, and Vanuatu. Main elements of the strategy include:

- Carrying out participatory rural appraisals, focus group discussions and surveys at all sites to identify present and future constraints on food production and to develop understanding of the adaptive capacity of communities.
- Building awareness among farmers, communities and agricultural officials of adaptation options,
- Training to encourage farmers to introduce innovative and sustainable pest control strategies and integrated crop management approaches, with support from GIS systems to map and monitor pests and/or diseases and predict where crop varieties will grow.
- Piloting farmer field schools.

- Designing and implementing adaptation approaches, such as: the utilization of animal waste in the production and application of manure to improve soil structure and fertility, crop associations to reduce incidence of pests and diseases, and agro-forestry practices.
- Providing in-country training and technical assistance to government officials to scale up successful approaches to improving the resilience of terrestrial food production systems and to integrate those approaches into national, sectoral and cross-sectoral developing planning, programs, and strategies.

Targeted beneficiaries

Farming communities in Fiji, Kiribati, Samoa, Solomon Islands, Tonga, and Vanuatu

Any significant lessons learned**Resource requirements**

\$4 million through 2015

Potential for replication or scaling-up**Any additional information**