

Samoa: Economics of adaptation to climate change study

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The Economics of Adaptation to Climate Change study (EACC) will inform the international community's efforts to provide new and additional resources to developing countries through a better understanding of the global costs of adapting to climate change. It will also help decision makers at the national level to better cost, prioritize sequence and integrate robust adaptation strategies into their development plans and budgets.

Why Samoa?

As a small island nation, Samoa is highly vulnerable to natural disasters which have lasting impacts on human development and economic growth. Tropical cyclones bring with them dangerous storm surges and high winds often resulting in extreme flooding. These events not only affect human capital, in terms of water borne diseases, they also destroy valuable capital stock and natural resources.

Samoans are highly dependent on natural resources for their livelihoods, as fishing and tourism are important sources of income, particularly for coastal populations. With climate change, the increased intensity and frequency of tropical cyclones coupled with a rising sea will have deleterious effects on the nation. The loss of beaches, inundation and degradation of coastal ecosystems and bleaching of corals are just some of the effects caused under a changing climate. Given that 70 percent of Samoa's population resides in low-lying coastal areas, adapting to climate change is a necessity for Samoa.

Social Dimensions – Livelihoods and Poverty

In Samoa, village communities are dependent on natural resources for their survival. The poor and most vulnerable communities rely heavily on coastal springs and rivers for water resources.

Climate change is projected to increase the intensity of rainfall and the frequency of floods affecting the supply and quality of water. Moreover, for local communities that subsist on agriculture and livestock production, climate change will increase the threats of crop and livestock disease.

Adapting to Climate Change

The government of Samoa has prepared a National Adaptation Programme of Action to the UNFCCC. In addition, the South Pacific Regional Environment Program (SPREP) is preparing an Economics of Climate Change Study for Samoa.

EACC in Samoa

The Economics of Adaptation to Climate Change study team is working with the government and local partners to complete an assessment of the socio-economic effects of climate change in Samoa.

This focuses on sea level rise and the potential increase in the occurrence and severity of tropical cyclones.

In the near-term the study will:

- Obtain an estimate of the damage to Samoan population and economy of climate change related risks (in the coastal areas). This will help quantify the benefits of adaptation measures;
- Identify and evaluate alternative adaptation measures applicable to Samoa, based on cost benefit analyses;
- Provide the Samoan authorities and institutions with an effective tool to estimate the future potential damage to specific key assets and to plan future adaptation investments based on different risk scenarios.