

## 10. Samoa

ADB Asian Development Bank

AusAID Australian Agency of International Development

CBA community based adaptation
CIA Central Intelligence Agency

DCCEE Department of Climate Change and Energy Efficiency (Australia)

FSM Federated States of Micronesia
GEF Global Environment Facility

IUCN International Union of Conservation of Nature

LDCF Least Developed Country Fund

MNREM Ministry of Natural Resources, Environment and Metorology (Samoa)

NAPA National Adaptation Programme of Action

NCCCT National Climate Change Country Team (Samoa)

NMFA Netherlands Ministry of Foreign Affairs

PNG Papua New Guinea

SCCF Special Climate Change Fund

SPREP Secretariat for the Pacific Regional Environmental Program

SWA Samoa Water Authority

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

UNOPS United Nations Office of Project Services

The Independent State of Samoa is a group of two main islands, Savai'i and Upolu, as well as several smaller islands lying in the Polynesia region of the southern Pacific Ocean. Its total area is approximately 2,931 square kilometers, with a coastline of about 403 kilometers. Approximately 193,000 people live in Samoa (CIA, 2011). Like other small tropical islands, Samoa's has high temperatures, rainfall and humidity throughout most of the year. Only the northwestern (leeward) sides of the main islands experience distinct wet and dry season (NCCCT, 1999). Samoa's economy is based on subsistence and commercial agriculture and fishing, and a growing tourism



industry. There are also several food processing and automobile parts plants. However, the country remains somewhat dependent on financial aid (CIA, 2011).

#### A. Adaptation Needs and Priorities

Samoa's main concerns related to climate change are the potential implications of a change in the frequency and/or intensity of extreme weather events, coastal erosion and sea level rise. The islands are presently exposed to severe tropical cyclones that typically occur between December and February (NCCCT, 1999); Cyclone Ofa (1990) and Cyclone Val (1991), for example, caused massive damage to Samoa's infrastructure, natural vegetation, crops and plantations (NMFA et al., 2010), resulting in economic costs equivalent to about three times the country's Gross National Product (NCCCT, 1999). These vulnerabilities in part reflect the fact that about 70 per cent the country's infrastructure and human settlements are located close to its coastline. Long dry periods associated with the El Nino Southern Oscillation are also a concern (NCCCT, 1999).

In its Initial National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), Samoa examined five primary areas of vulnerability to climate change: agriculture, human health, biodiversity, coastal environments and water. The agricultural sector, it was noted, might have to adapt to greater variability in weather and soil conditions, as well as a possible increase in pests and disease. Human health was identified as a concern because of the possible (but not understood) impact of climate change on several common fatal vector- and water-borne diseases such as dengue fever, gastroenteritis and diarrhea. Biodiversity was an additional concern as islanders have long depended on natural resources to support their livelihood activities. As biodiversity is likely to be affected by extreme weather events and human activities, Samoa expressed a desire for more research to be undertaken on how it can prepare to adapt to extreme weather events and a possible increase in pests/disease. Coastal environments, in addition to be potentially being exposed to changes in the pattern of extreme weather events, could also experience greater erosion, the retreat of beaches and marshlands, and flooding of low-lying areas due to sea level rise. Currently, there is an abundance of water resources for Samoans, but the sector is vulnerable to deforestation, droughts and turbidity of surface waters. As temperatures rise, adaptation needs in the water sector were expected to become more important (NCCCT, 1999).

More recently, Samoa's National Adaptation Programme of Action (NAPA) identifies urgent and immediate needs with respect to adaptation, with its top three being:

<sup>&</sup>lt;sup>172</sup> Research completed through the South Pacific Sea Level and Climate Monitoring Project, which has collected information in Samoa since 1993, suggests that sea levels in Apia, the capital of Samoa, were rising at a rate of 4.9 millimeters per year as of 2008. A linear projection suggests that sea levels in this location would rise by 53 centimeters by 2100 relative to 1990 levels (NMFA et al., 2010).



- 1) Water resources;
- 2) Reforestation programs and activities; and
- 3) Education and awareness programs.

The main priority criteria for implementation of programs in these areas was identified as being ensuring that they are country-driven, local and community-based (MNREM, 2005). Specific adaptation actions recommended in Samoa's NAPA are provided in Table 3.

#### B. National Level Policies and Strategic Documents

Samoa released its First National Communication in 1999, which outlines the socioeconomic and environmental status of Samoa and describes several possible adaptation actions for each of the priority sectors identified (NCCCT, 1999). Its adaptation needs and priorities were further elaborated in its 2005 NAPA (MNREM, 2005). Samoa has also established the Samoa National Climate Change Country Team, which is composed primarily of government representatives but also includes members of civil society (NMFA et al., 2010).

As well, climate change concerns have been acknowledged in Samoa's *Strategy for the Development of Samoa (2008-12)*. This strategy identifies national priorities related to key development sectors and guides all development activities in the country. Of the seven goals identified in the 2008-12 Strategy, climate change adaptation is integrated into Goal 7, "Environmental Sustainability and Disaster Risk Reduction." As in the NAPA, the Strategy highlights the potential for greater risk of natural disasters due to climate change and deforestation. The strategy highlights the need to implement the Disaster Management Act of 2007 and to further address the vulnerability of coastal communities (NMFA et al., 2010).

Table 1: Key Government Policies and Reports reflecting Adaptation Needs, Priorities and Planned Actions

Name of Policy Action	<b>Government Division</b>	Status	Sector(s) of	Summary description
	Responsible		Focus	
to the UNFCCC <sup>173</sup>	Samoa's National Climate Change Country Team	Released 1999		This document provides a baseline description of the socioeconomic and environmental status of the country. The greenhouse gas emissions were collected and shown that the amount of emissions is globally insignificant. The main
				vulnerabilities to climate change are outlined; sea level rise and extreme weather events are the most significant. Several adaptation strategies are briefly discussed.

<sup>173</sup> UNFCCC, http://unfccc.int/resource/docs/natc/samnc1.pdf



N	ame of Policy Action	Government Division Responsible	Status	Sector(s) of Focus	Summary description
2	National Adaptation Programme of Action Samoa <sup>174</sup>	Ministry of Natural Resources, Environment and Meteorology	Released December 2005	Multi-sectoral	This document outlines the national situation, and the major adaptation concerns of Samoa. The national adaptation programs that have been, or are to be implemented in order to cope with the impacts of climate change are described in detail. There is a need for capacity building that is apparent throughout the document.
3	Strategy for the Development of Samoa (2008–2012) <sup>175</sup>	Ministry of Finance	Released May 2008	Multi-sectoral	Sets for the framework for development in Samoa between 2008 and 2012. Of its seven goals, the need to adapt to the impacts of climate change is identified in Goal 7: "Environmental Sustainability and Disaster Risk Reduction."

## C. Current Adaptation Action

Relative to other Pacific Island countries, a very high number of climate change adaptation projects—national, regional and global—are presently underway in Samoa. Most of these projects focus on forestry and agriculture, but also address coastal zone management, human health, meteorological capacity, infrastructure, water and policy and planning. There are a variety of funding agencies active in the country, with the most common being the Asian Development Bank (ADB), the World Bank and the governments of Australia and Germany. Samoa also has received funding for two projects through the Least Developed Countries Fund (LDCF) that address priority actions identified in its NAPA.

Table 2: Current adaptation projects and programs active in Samoa

N	ame	Objectives		Implementing Agency(s)	Type of project		_	Geographic focus (if any)
N	ational Action							
1.	Integrating Climate Change	To increase the resilience and adaptive	LDCF; co-	UNDP, Ministry	Capacity	2009–2012	Agriculture;	Samoa
	Risks into the Agriculture	capacity of coastal communities in Samoa to	financing	of Natural	building		Human health	

<sup>&</sup>lt;sup>174</sup> UNFCCC, <a href="http://unfccc.int/resource/docs/napa/sam01.pdf">http://unfccc.int/resource/docs/napa/sam01.pdf</a>

<sup>&</sup>lt;sup>175</sup> SPREP, http://www.sprep.org/att/IRC/eCOPIES/Countries/Samoa/104.pdf



Nar	ne	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	and Health Sectors in Samoa <sup>176</sup>	the adverse impacts of on agricultural production and public health.	Budget: US\$ 4.10 million	Resources and Environment, Ministry of Health, National Health Services and Ministry of Agriculture and Fisheries				
2.	for Development: Climate change <sup>177</sup>	Australia is supporting the Government of Samoa to implement activities under Samoa's NAPA, primarily in the water, forest and tourism sectors. This includes a national tourism adaptation strategy setting out adaptation standards for tourism services (e.g. to manage surface floods in the capital Apia) and a national strategy for forest fire prevention.	AusAID Budget: US\$ 4 million	Government of Samoa	Field implementati on; Policy implementati on	2009–2013	Forestry; Tourism; Freshwater supply	Samoa
3.	Housing as Sanctuary from Climate Risks <sup>178</sup>	To recover indigenous cultural knowledge held by Samoan elders about housing and climate, and to apply this to the design and construction practices of Samoan indigenous housing in order to inform the development of safer, accessible, resilient, and sustainable housing. To put indigenous knowledge into practice through the construction of three model Samoan houses (Fale) in three coastal sites. To reinvigorate village-based teaching and practice of growing materials, crafting,	World Bank Budget: US\$199,000	Afeafe o Vaetoefaga Pacific Academy of Cultural Restoration, Research and Development	Capacity building; Knowledge communicatio ns	2010	Buildings	Apia

<sup>&</sup>lt;sup>176</sup> GEF, <a href="http://gefonline.org/projectDetailsSQL.cfm?projID=3358">http://gefonline.org/projectDetailsSQL.cfm?projID=3358</a>; Adaptation Learning Mechanism, <a href="http://www.adaptationlearning.net/project/integrating-net/project/inte climate-change-risks-agriculture-and-health-sectors-samoa and http://www.adaptationlearning.net/sites/default/files/Samoa%20ICCRAHS 6May11.pdf

<sup>177</sup> AusAID, http://www.ausaid.gov.au/country/cbrief.cfm?DCon=9205 8231 8940 8250 1457&CountryID=18&Region=SouthPacific
178 World Bank, http://wbi.worldbank.org/developmentmarketplace/idea/samoans-turn-traditional-housing-sanctuary-climate-risks



Nan	ne	Objectives			Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
		and constructing indigenous Samoan housing. To engage three village communities in a public education program about climate risk and developing risk management plans for the hazards that they will face.						
	Integration of Climate Change Risk and Resilience into Forestry Management <sup>179</sup>	climate change through targeted adaptation interventions in (i) lowland agro-forestry and (ii) upland native forest sub-sectors.	financing Budget: US\$	Resources and	Capacity building; Field implementati on	2011–2014	Forestry	Samoa
5.	Pacific Islands Climate Prediction Project <sup>180</sup>	of how seasonal climate prediction services can be applied to support climate-sensitive decision making and the use of climate predictions by National Meteorological Services and industries/agencies which use climate information (e.g. farmers, tourism, water resource managers and health authorities). Along with the provision of software tailored to local circumstances and	Budget: AU\$3.0 million	Bureau of	Research; Capacity building	Phase I: 2004–2006 Phase II: 2007–2009 (completed)		Regional: Cook Islands, Fiji, Kiribati, Niue, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu
		predictions in a risk management context, the project undertook specific pilot activities.	workshops ar rainfall and tr	nd technical suppopical cyclone prical cyclone pric	ort. Climate for ediction. <sup>181</sup> Part	ecasting with icipated in th	an emphasis on e pilot projects "	temperature, 'Climate and

<sup>&</sup>lt;sup>179</sup> GEF, <a href="http://www.gefonline.org/projectDetailsSQL.cfm?projID=4216">http://www.gefonline.org/projectDetailsSQL.cfm?projID=4216</a>

<sup>180</sup> BOM, http://www.bom.gov.au/climate/pi-cpp/ and ALM, http://www.adaptationlearning.net/project/pacific-islands-climate-predictions-project-pi-cpp

<sup>181</sup> BOM, http://www.bom.gov.au/climate/pi-cpp/wsm.shtml
182 BOM, http://www.bom.gov.au/climate/pi-cpp/pilot projects/fisheries guide.shtml



Nar	ne	Objectives	1	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
				of Climate Foreca the Pacific Island		ved Manage	ment of Hydropo	ower
6.	Regional Partnerships for Climate Change Adaptation and Disaster Preparedness <sup>184</sup>	The outcome is expected to be a strengthened information system that will support informed decision-making aimed at minimizing the negative social and environmental impacts of catastrophic events. It will also mitigate the financial risk of participating Pacific developing member countries to the effects of natural disasters, including those exacerbated by humaninduced climate change. This work is linked to the World Bank's work on the development of a Caribbean Catastrophe	Budget: US\$1.0 million In Samoa: Dat		, ,		Disaster risk management  o be developed. ancing and insura	
7.	Pilot Program for Climate Resilience (PPCR) <sup>186</sup>	Insurance Facility for the Pacific.  PPCR aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation in a way that is consistent with poverty reduction and sustainable development goals. In this way, the PPCR provides incentives for scaled-up action and initiates transformational change. The pilot programs and projects implemented under the PPCR are countryled, build on NAPAs and other relevant country studies and strategies. Pacific participation includes Papua New Guinea,	World Bank's Strategic Climate Fund Budget: US\$971.75 million pledged as of February 2011	World Bank	Policy formation and integration	2008–?	Multi-sectoral	Regional Programs: Caribbean and Pacific Country programs: Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen,

BOM, <a href="http://www.bom.gov.au/climate/pi-cpp/pilot-projects/energy.shtml">http://www.bom.gov.au/climate/pi-cpp/pilot-projects/energy.shtml</a>
 ADB, <a href="http://www.adb.org/Projects/project.asp?id=41187">http://www.adb.org/Projects/project.asp?id=41187</a>
 ADB, <a href="http://www.adb.org/Documents/TARs/REG/41187-REG-TAR.pdf">http://www.adb.org/Projects/project.asp?id=41187</a>
 ADB, <a href="http://www.adb.org/Documents/TARs/REG/41187-REG-TAR.pdf">http://www.adb.org/Documents/TARs/REG/41187-REG-TAR.pdf</a>
 Climate Fund Update, <a href="http://www.climatefundsupdate.org/listing/pilot-program-for-climate-resilience">http://www.climatefundsupdate.org/listing/pilot-program-for-climate-resilience">http://www.climatefundsupdate.org/listing/pilot-program-for-climate-resilience</a>



Na	me	Objectives		Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
		Samoa and Tonga.						Zambia
			<ul><li> "Project Program Road." Fund</li><li> "Project Project Program Project Program Program Project Projec</li></ul>	eparation Grant to ding in the amou eparation Grant to unities." Grant pr	for Enhancing th int of US\$200,00 for Enhancing th	ne Climate Re 00 was grant ne Climate Re	E specifically in Sa esilience of the W ed in March 2011 esilience of Coast nt of US\$400,000	est Coast al Resources
8.	Climate Change <sup>188</sup>	were: (1) to develop a global estimate of adaptation costs to inform the international community's efforts to tailor support and provide new and additional resources to help vulnerable developing countries meet adaptation costs; and (2) to support decision makers in developing countries to better evaluate and assess the risks posed by climate change and to better design	In Samoa: Res Samoa's infra project are ac	earch project to structure, humai	n health (malari tp://climatechar	a) and forest nge.worldbar	Multi-sectoral  o climate chang ry sectors. Outcook.org/content/co	mes of the
9.	Initiative <sup>189</sup>	have implemented activities to reduce their vulnerability to climate change and achieve good environmental outcomes. The Initiative has funded activities such as the replanting of coastal mangroves to protect shorelines, the construction of rain water tanks in	AusAID In Samoa: Add	litional informati	Field implementati on; Capacity building on required.	2008–2012	Multi-sectoral	Regional: Fiji, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu

<sup>&</sup>lt;sup>187</sup> Climate Investment Fund, <a href="http://www.climateinvestmentfunds.org/cifnet/?q=country-program-info/samoas-ppcr-programming">http://www.climateinvestmentfunds.org/cifnet/?q=country-program-info/samoas-ppcr-programming</a>

<sup>188</sup> World Bank, http://climatechange.worldbank.org/content/economics-adaptation-climate-change-study-homepage
189 AusAID, http://www.ausaid.gov.au/country/pacific/climate\_change.cfm



Nar	me	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
		disaster preparation.						
10.	Climate Change Project (PACC) <sup>190</sup>	PACC will implement long-term adaptation measures to increase the resilience of a number of key development sectors in the Pacific Islands to the impacts of climate change. This objective will be achieved by focusing on adaptation response strategies, policies and measures to bring about this result. The key development sectors this project will focus on are: 1. water resources management; 2. food production and food security; and 3. coastal zone and associated infrastructure (roads and breakwater). To ensure sustainability of the project, regional and national adaptation financing instruments will constitute a fourth	SCCF, co- financing  Budget: US\$59,526,2 99	UNDP, ADB, SPREP	Capacity building; Policy formation and integration	2008–2012	Agriculture; Coastal zone management; Freshwater supply	Regional: Cook Islands, FSM, Fiji, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu
		component of the project.	in Sumou. Add	iitionai iinomiat	ion required.			
11.	Strengthening the Capacity of Pacific Developing Member Countries to Respond to Climate Change (Phase 1) <sup>191</sup>	Incorporation of climate risk management, adaptation practices, and greenhouse gas mitigation measures into infrastructure and key sector investment plans and project designs. Adaptation related actions include:  • Pacific Climate Change Program—will assist participating countries to improve their resilience to climate change impacts through (i) mainstreaming of the adaptation in their policies, plans, programs, and projects; and (ii) strengthening their systems and capabilities to foster the adaptation	ADB, Canada Budget: US\$4.965 million	ADB	Capacity building; Policy formation and integration	2009-?	Government	Regional: Cook Islands, Fiji, FSM, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu. Plus: Timor-

<sup>&</sup>lt;sup>190</sup>GEF, http://www.thegef.org/gef/sites/thegef.org/files/documents/document/09-16-08-SCCF.pdf <sup>191</sup> ADB, http://pid.adb.org/pid/TaView.htm?projNo=43071&seqNo=01&typeCd=2#timetable



Nan	ne	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
		process; and  • Adaptation preparation–up to five countries will be supported in preparing the implementation of climate change adaptation plans, including further capacity building	In Samoa: Add	litional informati	on required.			Leste
12.	Community-based Adaptation (CBA) Programme <sup>192</sup>	The objective of the program is to enhance the capacity of communities in the pilot countries to adapt to climate change including variability. Planned outcomes are:  • Enhanced adaptive capacity allows communities to reduce their vulnerability to adverse impacts of future climate hazards;  • National policies and programs include community-based adaptation priorities to promote replication, up-scaling and integration of best practices derived from community-based adaptation projects; and  • Cooperation among member countries promotes global innovation in adaptation to climate change including variability.	<ul> <li>ecosystems a</li> <li>Samoa as par</li> <li>Satoalepai</li> <li>Reducing ir conservatio</li> <li>Community Fagamolo,</li> </ul>	projects completed the maintenant of this initiative Coastal Resource in pacts of climate on of mangroves, rebased Adaptatic Avao, Vaipouli, Sreased Adaptatic results of control of the c	nce of their good are: es Adaptation Poet change-driven eco-systems, a on against flood alei'a and Safai;	ds and service roject (co-funderosion through the coral reefficing and seal and	es. Projects und nded by AusAID); ugh protection a s;	erway in ; and
13.	Pacific Mangroves Initiative <sup>194</sup>	In this project data will be collected and analyzed to identify climate risks and assist participating countries to create policies for	German Federal Environment	IUCN, University of the South	Research; Capacity building	2009–2013	Coastal zone management; Government	Regional: Fiji, Samoa, Solomon

<sup>&</sup>lt;sup>192</sup> UNDP, <a href="http://www.undp-adaptation.org/projects/websites/index.php?option=com">http://www.undp-adaptation.org/projects/websites/index.php?option=com</a> content&task=view&id=203

<sup>193</sup> CBA, http://www.undp-adaptation.org/projects/websites/index.php?option=com\_content&task=view&id=252&sub=1
194 BMU, http://www.bmu-klimaschutzinitiative.de/en/projects?p=1&d=525



Nar	ne	Objectives	` '	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
			Ministry Budget: €2,297,249	Pacific, SPREP				Islands, Tonga, Vanuatu
			In Samoa: Ado	litional informati	on required.			
14.	in the Pacific Island Region <sup>195</sup>	the local population, the national governmental authorities and regional organizations—SPC and SPREP—in order to cope with the effects of climate change and combat its causes. It includes reviewing policies and integrating adaptation considerations into them, and focuses on the management of land and coastal natural resources, as well as tourism. At the regional level, the program aligns with the Pacific Island Framework for Action on Climate Change 2006–2015. Originally only involving	Federal Ministry for Economic Cooperation and Developmen t  Budget: €17.2 million	GIZ, SPC	Capacity building; Policy formation and integration; Field implementati on	2009–2015	Agriculture; Forestry; Tourism	Regional: FSM, Fiji, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu
		Fiji, Tonga, Vanuatu, the project has been expanded and extended.						
15.	Cities and Climate Change Initiative Asia Pacific <sup>196</sup>	This initiative aims to strengthen the climate change response of cities and local	Budget:	Local governments, universities	Capacity building; Knowledge communicatio n; Policy formation and integration	2010-?	Urban areas	Asia Pacific: China, Fiji, Indonesia, Mongolia, Nepal, Papua New Guinea, Samoa, Sri Lanka, Vanuatu and

<sup>&</sup>lt;sup>195</sup> GIZ, <a href="http://www.gtz.de/en/weltweit/asien-pazifik/27718.htm">http://www.gtz.de/en/weltweit/asien-pazifik/27718.htm</a> and SPC, <a href="http://www.spc.int/lrd/index.php?option=com">http://www.spc.int/lrd/index.php?option=com</a> content&view=article&id=478&Itemid=44 <a href="http://www.fukuoka.unhabitat.org/programmes/ccci/index\_en.html">http://www.fukuoka.unhabitat.org/programmes/ccci/index\_en.html</a>



1	Name	Objectives		Implementing Agency(s)	Type of project		_	Geographic focus (if any)
		and capacity building.						Viet Nam
			In Samoa: Cap sharing.	acity building on	climate risk ma	nagement, p	olicy planning, a	nd knowledge

# D. Proposed Adaptation Action

Samoa identified a number of projects in its NAPA to address many of its capacity building needs. All of the adaptation projects suggested have a strong community component. Support for implementation of these priority actions has been received from the LCDF through the projects "Integrated Climate Change Adaptation in Samoa" and "Integration of Climate Change Risk and Resilience into Forestry Management."

Table 3: Proposed Adaptation Projects and Programs from the National Adaptation Programme of Action for Samoa

N	nme	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)		
1.	Securing Community Water Resources Project	To improve water quality, accessibility and availability (quantity) of communities.	Capacity building	Agriculture; Human health; Freshwater supply			
			Notes: Implementing Agency: Samoa Water Authority (SWA) Coordinating Agency: Ministry of Natural Resources, Environment & Meteorology				
2.	Reforestation, Rehabilitation and	To protect, rehabilitate, and increase	Capacity building	Forestry			
	Community Forestry Fire Prevention Project	resilience of coastal lowland and inland forest resources.	Coordinating Agency: Ministry	Ministry of Agriculture, Fire Se of Natural Resources, Environ ration with identified vulnerab	nment and		
3.	Climate Health Cooperation Program	To institute coordination of climate-health	Capacity building	Human health			
	Project	partnership programs and emergency measures to respond to climate change and extreme events.	Notes: Implementing Agencies: Ministry of Health, Ministry of Natural Resources, Environment and Meteorology Coordinating Agency: Ministry of Natural Resources, Environment and Meteorology				
4.	Climate Early Warning System Project	To implement effective early warning	Capacity building Climate information				
		systems and emergency response		services			
		measures to climate and extreme events.	Notes: Implementing Agency:	Ministry of Natural Resources	, Environment and		



Name		Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
			Meteorology Coordinating Agencies: Ministry of Natural Resources, Environment and Meteorology		
5.	Agriculture and Food Security Sustainability Project	To maintain economically subsistent agriculture and sustain food security in communities.	Capacity building	Agriculture	
			Notes: Institutional Arrangements: Ministry of Agriculture with close collaboration with communities  Coordinating Agencies: Ministry of Natural Resources, Environment and Meteorology		
6.	Zoning and Strategic Management Planning	Implement zoning and strategic management planning.	Capacity building	Multi-sectoral	
			Notes: Implementing Agencies: Ministry of Natural Resources, Environment and Meteorology  Coordinating Agencies: Ministry of Natural Resources, Environment and Meteorology, Project Steering Committee (Advisory Committee)		
7.	Implement Coastal Infrastructure Management Plans for Highly Vulnerable Districts Project	To implement plans for Highly Vulnerable Districts Project.	Capacity building	Coastal zone management	
			<b>Notes:</b> <i>Implementing Agencies:</i> Ministry of Natural Resources, Environment and Meteorology Ministry of Water, Transportation and Infrastructure		
8.	Establishing Conservation Programs in Highly Vulnerable Marine and Terrestrial Areas of Communities Project	based conservation programs for the	Capacity building	Marine management; Ecosystem conservation	
			Notes: Implementing Agencies: Ministry of Natural Resources, Environment and Meteorology, Ministry of Agriculture Coordinating Agency: Project Steering Committee		
9.	. Sustainable Tourism Adaptation Project	Implement sustainable tourism adaptation project.	Capacity building	Tourism	
			Notes: Implementing Agencies: Samoa Tourism, Ministry of Natural Resources, Environment and Meteorology Coordinating Agency: Ministry of Agriculture, NGOs, Communities, Resorts, Hotels		

## E. Assessment

Samoa has a very high number of projects underway focused on reducing vulnerability to the impacts of climate change, particularly in the areas of forestry and agriculture. Action is also taking place in a breadth of other areas, including water, health, infrastructure and



climate forecasting/meteorology. However, greater attention may need to be given to addressing coastal resource management, fisheries (a key economic sector), and disaster risk reduction concerns. As well, gender considerations are not a prominent component of any current adaptation project or proposed strategy. Clarification regarding the extent to which adaptation is being integrated into national policy and planning processes also is required.

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