

3.0 Fiji

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (Germany)
GRFI	Government of the Republic of the Fiji Islands
IFRC	International Federation of Red Cross and Red Crescent
IUCN	International Union for the Conservation of Nature
MFNP	Ministry of Finance and National Planning
PACC	Pacific Islands Adaptation to Climate Change Project
PNG	Papua New Guinea
SCCF	Special Climate Change Fund
SPA	Strategic Priority for Adaptation (Global Environment Facility)
SPREP	Secretariat to Pacific Regional Environmental Program
UNDP	United Nations Development Programme
WHO	World Health Organisation
WWF	World Wildlife Fund

Located approximately 1,100 miles off of the northeast of New Zealand's north island, the Republic of Fiji is composed of over 330 islands—the majority of which were formed through volcanic activity. Fiji is one of the most economically developed countries in the Pacific Island realm due to an abundance of forest, mineral and marine resources. Its main industries are tourism and sugar exports (GRFI, 2009). Climate change is expected to affect the country's coastal resources by way of raising temperatures in the marine environment and through sea level rise. As well there may be impacts on infrastructure caused by a potential increase in the frequency and intensity of cyclones and other tropical storms (MFNP, 2005).

A. Adaptation Needs and Priorities

Fiji has identified four main sectors in which adaptation strategies need to be assessed, planned and carried out (MFNP, 2005):

1. *Coastal resources.* Adaptation needs are identified as being:
 - An improved understanding of the coastal system, examination and evaluation of coastal protection options;
 - Land use policies that encourage settlement away from low-lying coastal areas;
 - Mangrove and reef protection, including exploration of the use of artificial reefs to enhance coastal protection; alternative sources of construction aggregate (*not* coral); reducing use and cutting of mangrove areas; and mangrove rehabilitation;
 - Controls on pollution from residential, tourism, commercial and industrial areas; and
 - Water-catchment management and soil-conservation measures to reduce erosion and sedimentation.

2. *Freshwater Resources.* Needs in this sector have been identified as including:
 - Flood Control—Construction of diversion channels, weirs, cut-off channels, retarding basins and dams; and river-improvement activities such as channel widening, dyke construction or river-bed excavation.
 - Drought alleviation—Management of water resources; water legislation; development of alternative water resources such as groundwater and the use of roof catchments; and consumer charges for water use.
 - Catchment Management—Reforestation, land-use controls, protection of wetlands and soil conservation; reducing flood-damage potential by regulating development on flood plains and promoting flood-proof building design; community level activities to improve awareness of water conservation and emergency response; and institutional development such as the creation of catchment and water authorities would help build capacity to improve the management of water resources.

3. *Agriculture.* Adaptation needs identified include:
 - Researching flexible farming systems that are tolerant to climatic variability, development of sustainable production systems, and melding of traditional and modern systems.
 - Establishment of an Agricultural Diversification Scheme (under the Commodity Development Framework).
 - Cessation of sugarcane production of marginal sloping lands and coastal lands, and intensified irrigation of sugar cane production on better lands.
 - Strengthening of land use planning in order to identify most suitable areas for adaptation commercial and subsistence based crops.
 - Root crop breeding program and development of improved irrigation systems.

4. *Human Health.* The needs for human health adaptation are:

- Dengue Fever control: encourage prevention, improve quarantine, epidemic preparedness response and implement proper development policies.
- Diarrheal Disease: improve reliability, safety and sanitation of water, refrigeration practices, emergency strategies and health care access.

B. National Level Policies and Strategic Documents

The Fiji Department of the Environment’s *First National Communication under the Framework Convention on Climate Change*, released in 2005, outlines the climate change situation for Fiji and details adaptation measures for the country. Building on this effort, Fiji integrated climate change considerations into its Strategic Development Plan (2007–2011). This plan is an all-encompassing document that outlines the development strategy for the country in terms of environment, economy, human health, tourism, marine resources and many other areas. Climate change adaptation and mitigation is a theme found throughout the document and as its own separate discussion piece.

In 2010, the country re-established its National Climate Change Country Team, which was given responsibility for preparation of a Climate Change Policy (Fiji, n.d). Linked to this initiative are ongoing efforts to establish a National Climate Change Adaptation Strategy. It is expected that this strategy will support the integration of adaptation into core functional activities, include an action plan to address adaptation needs and be aligned with existing strategies, policies and action plans (Hay, 2011).

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

Name of Policy Action	Government Division Responsible	Status	Sector(s) of Focus	Summary description
1. Climate Change The Fiji Islands Response: Fiji’s First National Communication Under the Framework Convention on Climate Change ⁸⁷	Fiji Department of the Environment	Released 2005	Agriculture; Marine management; Freshwater supply	The basics about climate change impacts and how these changes will affect base sectors is described. This report focuses on several projects: 1) establishment of a Climate Change Unit within the Department of Environment; 2) promotion of renewable energy; 3) natural vulnerability and adaptation assessment study; 4) watershed management for the sugarcane drought-prone areas; and 5) integrated coastal zone management. This detailed

⁸⁷Climate Change The Fiji Islands Response: Fiji’s First National Communication Under the Framework Convention on Climate Change: <http://unfccc.int/resource/docs/natc/fjinc1.pdf>

Name of Policy Action	Government Division Responsible	Status	Sector(s) of Focus	Summary description	
				document introduces several mitigation techniques and strategies for reaching their goals in terms of the main projects proposed for Fiji.	
2.	Strategic Development Plan ⁸⁸	Ministry of Finance and National Planning	Released November 2006	Multi-sectoral	This all-encompassing document is a strategic plan for the development of Fiji. It includes a well-developed section on environmental sustainability and climate change mitigation is a theme throughout.
3.	Climate Change Policy ⁸⁹	National Climate Change Country Team and the Ministry for Local Government, Urban Development, Housing and Environment	In development	Agriculture; Coastal zone management	Focus on climate change adaptation and mitigation.

C. Current Adaptation Action

A very high number of adaptation projects and programs are currently underway in Fiji, as demonstrated in Table 2. All of these projects engage other countries from across the Pacific and globally; no projects that solely meets Fiji's individual needs have been identified. The focus of these projects is diverse, including coastal management, water management, wetlands, agriculture, meteorology and risk reduction as well as health, fisheries, forestry and energy.

Table 2: Current Adaptation Projects and Programs active in Fiji

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
Participation in Regional and Global Actions							
1.	Pacific Islands Climate Prediction Project ⁹⁰	The project aimed to expand understanding of how seasonal climate prediction services can be applied to support climate-sensitive	AusAID Budget:	Australia Bureau of Meteorology	Research; Capacity building	Phase I: 2004–2006 Phase II:	Climate information services <i>Regional:</i> Cook Islands, Fiji, Kiribati,

⁸⁸ Strategic Development Plan: http://www.fijianaffairs.gov.fj/docs/Strategic_Development_Plan_2007_to_2011.pdf

⁸⁹ Climate Change Policy: http://www.fiji.gov.fj/index.php?option=com_content&view=article&id=3476:climate-change-policy&catid=71:press-releases&Itemid=155

⁹⁰ BOM, <http://www.bom.gov.au/climate/pi-cpp/> and ALM, <http://www.adaptationlearning.net/project/pacific-islands-climate-predictions-project-pi-cpp>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	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 training in the effective use of climate predictions in a risk management context, the project undertook specific pilot activities.	AU\$3.0 million			2007–2009 (completed)		Niue, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu
<p><i>In Fiji:</i> Support for Fiji’s Meteorological Services and early rainfall warning system. Training workshop for area producers. Locally implemented the pilot project “Impact of Climate Variability and Climate Change on Water Security: A case study of Vaturu dam in Fiji”⁹¹ and participated in the pilot project “Climate and Oceanographic Variability and their Impacts on Fisheries”⁹² that was completed in 2005.</p>							
2.	Developing a Method for Adaptive Management and Protection from Climate Change in Mangrove and Coral Reef Ecosystems ⁹³	GEF/UNEP; WWF; Partner organization s	WWF, Wetlands International, Institute of Applied Sciences, Wildlife Conservation Society, communities	Capacity building	2007–2009	Coastal zone management; Ecosystem conservation	Global: Cameroon, Fiji, Tanzania
<p><i>In Fiji:</i> additional information required.</p>							
3.	Regional Partnerships for Climate Change Adaptation and Disaster Preparedness ⁹⁴	ADB Budget: US\$1.0 million	World Bank	Capacity building	Phase 1: 2007–2011	Disaster risk management	Regional: Cook Islands, Fiji, PNG, Samoa, Solomon

⁹¹ BOM, http://www.bom.gov.au/climate/pi-cpp/pilot_projects/water_security.shtml

⁹² BOM, http://www.bom.gov.au/climate/pi-cpp/pilot_projects/fisheries_guide.shtml

⁹³ Wetlands, <http://wetlands.org/Whatwedo/Ourfieldprojects/Projectarchive/tabid/59/mod/601/articleType/ArticleView/articleId/1994/Default.aspx>

⁹⁴ ADB, <http://www.adb.org/Projects/project.asp?id=41187>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	events. It will also mitigate the financial risk of participating Pacific developing member countries to the effects of natural disasters, including those exacerbated by human-induced climate change. This work is linked to the World Bank's work on the development of a Caribbean Catastrophe Insurance Facility for the Pacific.						Islands, Tonga, Tuvalu, and Vanuatu
		<i>In Fiji:</i> Data gathering for country-specific risk models to be developed. These models will be used to assess the feasibility of catastrophe risk financing and insurance options. ⁹⁵					
4.	Vulnerability and Adaptation Initiative ⁹⁶	AusAID		Field implementation; Capacity building	2008–2012	Multi-sectoral	<i>Regional:</i> Fiji, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu
		<i>In Fiji:</i> Additional information required.					
5.	Pacific Islands Adaptation to Climate Change Project (PACC) ⁹⁷	SCCF, co-financing <i>Budget:</i> US\$59,526,299	UNDP, ADB, SPREP	Capacity building; Policy formation and integration	2008–2012	Agriculture; Coastal zone management; Freshwater supply	<i>Regional:</i> Cook Islands, FSM, Fiji, Nauru, Palau, PNG, Solomon Islands, Tonga, Tuvalu, Vanuatu

⁹⁵ ADB, <http://www.adb.org/Documents/TARs/REG/41187-REG-TAR.pdf>

⁹⁶ AusAID, http://www.ausaid.gov.au/country/pacific/climate_change.cfm

⁹⁷ GEF, <http://www.thegef.org/gef/sites/thegef.org/files/documents/document/09-16-08-SCCF.pdf>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	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 component of the project.	<i>In Fiji:</i> Demonstration measures to reduce vulnerability in coastal areas and crop production. Regional workshops.					
6.	Coastal and Marine Resources Management in the Coral Triangle of the Pacific (under the Pacific Alliance for Sustainability Program and the Coral Triangle Initiative) ⁹⁸	GEF-SPA; Japan; Australia; United States <i>Budget:</i> US\$27,568,183	ADB	Capacity building, Research; Field implementation	2008–2013	Coastal zone management; Marine management	<i>Regional:</i> FSM, Fiji, Palau, PNG, Solomon Islands and Vanuatu <i>Plus:</i> Timor-Leste
		<i>In Fiji:</i> Additional information required.					
7.	Strengthening the Capacity of Pacific Developing Member Countries to Respond to Climate Change (Phase 1) ⁹⁹	ADB, Canada <i>Budget:</i> US\$4.965 million	ADB	Capacity building; Policy formation and integration	2009–?	Government	<i>Regional:</i> Cook Islands, Fiji, FSM, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu. <i>Plus:</i> Timor-

⁹⁸ GEF, <http://www.gefonline.org/projectDetailsSQL.cfm?projID=3591>

⁹⁹ ADB, <http://pid.adb.org/pid/TaView.htm?projNo=43071&seqNo=01&typeCd=2#timetable>

Name	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						Leste
		<i>In Fiji: To be determined</i>					
8.	Pacific Mangroves Initiative ¹⁰⁰	German Federal Environment Ministry <i>Budget: €2,297,249</i>	IUCN, University of the South Pacific, SPREP	Research; Capacity building	2009–2013	Coastal zone management; Government	<i>Regional: Fiji, Samoa, Solomon Islands, Tonga, Vanuatu</i>
		<i>In Fiji: Additional information required.</i>					
9.	Coping with Climate Change in the Pacific Island Region ¹⁰¹	German Federal Ministry for Economic Cooperation and Development <i>Budget: €17.2 million</i>	GIZ, SPC	Capacity building; Policy formation and integration; Field implementation	2009–2015	Agriculture; Forestry; Tourism	<i>Regional: FSM, Fiji, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu</i>
		<i>In Fiji: The program is working with relevant actors to protect forest resources.¹⁰²</i>					

¹⁰⁰ BMU, <http://www.bmu-klimaschutzinitiative.de/en/projects?p=1&d=525>

¹⁰¹ GIZ, <http://www.gtz.de/en/weltweit/asien-pazifik/27718.htm> and SPC, http://www.spc.int/lrd/index.php?option=com_content&view=article&id=478&Itemid=44

¹⁰² GIZ, <http://www.gtz.de/en/weltweit/asien-pazifik/27718.htm>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	expanded and extended.						
10. Cities and Climate Change Initiative Asia Pacific ¹⁰³	This initiative aims to strengthen the climate change response of cities and local governments. The main objectives are to: promote active climate change collaboration between local governments and associations; to enhance policy dialogue on climate change; to support local governments in preparing climate action plans; and to foster awareness, education and capacity building.	UN-Habitat Budget: US\$10 million	Local governments, universities	Capacity building; Knowledge communication; Policy formation and integration	2010–?	Urban areas	Asia Pacific: China, Fiji, Indonesia, Mongolia, Nepal, Papua New Guinea, Samoa, Sri Lanka, Vanuatu and Viet Nam
							<i>In Fiji:</i> Monitoring sea level and rainfall volume; raising awareness through non-governmental organizations and government agencies; education awareness; integrated coastal watershed management initiatives; waste disposal management; and corporate carbon reduction initiatives. ¹⁰⁴
11. Piloting Climate Change Adaptation to Protect Human Health ¹⁰⁵	To increase adaptive capacity of national health system institutions, including field practitioners, to respond to climate change-sensitive health risks. The expected outputs of the project are: <ul style="list-style-type: none"> • Early warning systems will be adjusted to include climate change induced health risks. • Capacity of health sector institutions to respond to climate-sensitive health risks will be improved. • Prevention measures piloted in emerging and epidemic risk area. • Cooperation among participating 	SCCF; co-financing Budget: US\$20,933,244	UNDP, WHO	Capacity building; Field implementation	2009–2014	Human health; Disaster risk management	Global: Barbados, Bhutan, China, Fiji, Jordan, Kenya and Uzbekistan
							<i>In Fiji:</i> The principal expected benefit for the health sector is having a functional Health Information System that is capable of generating Early Warnings for climate sensitive diseases and communicating these effectively to relevant stakeholders. The project will also: create awareness amongst communities; further strengthen interdisciplinary collaboration and communication within all levels the Ministry of Health; strengthen inter-sectoral collaboration at all levels with other key government agencies (such as the Fiji Meteorological Service and the National Disaster Management Office) and

¹⁰³ CCCI, http://www.fukuoka.unhabitat.org/programmes/ccci/index_en.html

¹⁰⁴ UN-Habitat, http://www.fukuoka.unhabitat.org/programmes/ccci/pdf/Lami_flyer_July_2010.pdf

¹⁰⁵ GEF, <http://www.thegef.org/gef/sites/thegef.org/files/documents/document/10-30-09-SCCF.pdf>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	countries promotes innovation in adaptation to climate change including variability.	organizations such as the International Federation of Red Cross and Red Crescent. The project contributes to the revival of the Fiji Climate Change Country Team to ensure proper coordination of climate change activities in the country. ¹⁰⁶					
12.	Asia Pacific Climate Change Adaptation Project Preparation Facility (ADAPT) ¹⁰⁷	USAID Budget: US\$18.0 million	WWF, Conservation International, the Nature Conservancy, ARD Inc., NOAA	Capacity building; Knowledge communication	2011–2016	Government	Asia Region: Bangladesh, Cambodia, FSM, Fiji, Indonesia, Lao PDR, Malaysia, Nepal, Palau, Philippines, Solomon Islands, Sri Lanka, Thailand, Viet Nam
<i>In Fiji: To be determined.</i>							

D. Proposed Adaptation Action

As described in Table 3, Fiji has submitted a project to the Adaptation Fund for consideration.

Table 3: Proposed Adaptation Projects and Programs in Fiji

Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)	
1.	Enhancing Resilience of Rural Communities to Flood and Drought-Related Climate Change and Disaster	This project will integrate climate change into current flood/drought risk management through information generation, training and dissemination. The project will	Capacity building	Disaster risk management	Ba Catchment Area
Notes: Submitted to the Adaptation Fund Board. Concept					

¹⁰⁶ GEF, <http://www.thegef.org/gef/sites/thegef.org/files/documents/document/10-30-09-SCCF.pdf>

¹⁰⁷ USDS, <http://www.state.gov/documents/organization/151686.pdf>



Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
Risks in the Ba Catchment Area of Fiji ¹⁰⁸	concentrate on four areas: <ul style="list-style-type: none"> • Climate early warning and information systems • Community based adaptation to flood and drought related risk and hazards • Institutional strengthening to support climate-and disaster-resilient policy frameworks • Awareness raising and knowledge management 	approved by Adaptation Fund Board in June 2011. <i>Proposed implementing agency:</i> UNDP, Fiji Department of the Environment Proposed budget: US\$5,728,800 Proposed timeline: 2012–2015		

E. Assessment

Fiji is actively engaged in addressing climate change at both the policy and project level. It is involved in a very high number of international projects relative to other Pacific Island countries, including its unique participation in the World Health Organization’s “Piloting Climate Change Adaptation to Protect Human Health” project. This project helps Fiji address one its four priority areas of adaptation, with human health being the least represented within ongoing initiatives. Most of the adaptation action in Fiji focuses on its important coastal zone and water management needs. Greater attention may also be given to addressing the country’s adaptation priorities in the agriculture sector. In addition, none of the currently identified projects specifically focus on the gender dimensions of climate change.

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¹⁰⁸Adaptation Fund, http://www.adaptation-fund.org/sites/default/files/AFB.PPRC_5.7%20Proposal%20for%20Fiji_1.pdf and http://www.adaptation-fund.org/sites/default/files/AFB14_Report_English.pdf



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<http://unfccc.int/resource/docs/natc/fjinc1.pdf>