

4.0 Dominica

AusAID	Australian Agency for International Development
CCCCC	Caribbean Community Climate Change Centre
CCRIF	Caribbean Community Risk Insurance Facility
CIF	Climate Investment Funds
ECLAC	Economic Commission for Latin America and the Caribbean
GEF	Global Environment Facility
IUCN	International Union for the Conservation of Nature
MACC	Mainstreaming Adaptation to Climate Change
NOAA	National Oceanic and Atmospheric Administration
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USDS	United States Department of State

The Commonwealth of Dominica is located in the Caribbean Sea, and was the last of the Caribbean islands to be colonized by Europe. Dominica is a mountainous volcanic island, with very rugged and steep terrain (John, Bellot and Parry, 2001). The island has rich biodiversity, a perennial river system, and extensive rainforests. Sixty per cent of the land area of the country is covered by vegetation, including scrub woodlands and lush tropical forest (John, Bellot and Parry, 2001). Dominica's tropical maritime climate is influenced by the North East Trade Winds and its rugged topography results in micro-climate variability over small distances (John, Bellot and Parry, 2001). The country is located along the tropical Atlantic hurricane belt and has experienced approximately 15 extreme weather events since 1979.

Dominica's population is approximately 72,000 people, 90 per cent of whom live in coastal villages (John, Bellot and Parry, 2001; USDS, 2010). The country's main economic sectors are rain-fed agriculture (with major crops including bananas, citrus and coconuts.), government services, banks and insurance, wholesale and retail trade, and transport (John, Bellot and Parry, 2001).



A. Adaptation Needs and Priorities

The country experiences one of the highest levels of rainfall in the Caribbean, distributed among a drier season from December to April and a wetter season from June to November (John, Bellot and Parry, 2010). The country's First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) identifies the following sectors as being vulnerable in Dominica:

- *Forestry and terrestrial resources*: Possible impacts of climate change on the country's forest ecosystems include: an alteration in the range of species; reduced water flow; an increase in forest pests and disease; and reduced food availability for wildlife.
- *Coastal ecosystems*: A rise in mean sea level could cause a loss of beach area; rising temperatures may damage coral reefs along with the island's tourism sector and fishery; and increased mortality of mangrove forests.
- *Water resources*: Depending on future changes in precipitation on the island, climate change could result in flooding, landslides, reduced water for domestic use, and saline invasion of drinking water.
- *Human settlements and infrastructure*: Given that most of Dominica's infrastructure is located in coastal areas, more frequent extreme weather events and sea level rise could adversely impact these human settlements.
- *Agriculture*: Impacts could include: declines in the country's main crop, bananas, which are very sensitive to changes in precipitation; losses due to extreme weather events such as cyclones; and changes in yield due to rising temperatures and variable precipitation.
- *Fisheries*: The fisheries sector is vulnerable to the impacts of climate change as a result of the expected consequences of rising sea temperatures on coral reefs.
- *Tourism*: The impact of climate change on coastal zones, fisheries, and coral reefs could adversely affect this burgeoning industry.

B. National Level Policies and Strategic Documents

In 2001, Dominica submitted its First National Communication to the UNFCCC, and is expected to complete its Second National Communication prior to the end of 2011 (CIF, 2009). Following its participation in the "Mainstreaming Adaptation to Climate Change" (MACC) project (see Table 2), Dominica also recently approved a national policy on climate change, although details regarding it are not immediately available (CIF, 2009). In addition to these measures, Dominica has established an Office of Disaster Management within the Ministry of Public Utilities that is responsible for overseeing the country's risk reduction measures (UNDP, 2009).

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.	Initial National Communication under the UNFCCC ⁸⁸	Ministry of Agriculture and Environment	Submitted in 2001	Multi-sectoral	This document provides a review of Dominica’s national circumstances and characteristics, identifies the country’s main sources of greenhouse gas emissions and vulnerabilities to climate change, and discusses ways that climate change may be addressed through mitigation and adaptation policies.

C. Current Adaptation Action

In comparison to other Caribbean countries, Dominica is currently participating in a moderate number of regional and global adaptation projects. Dominica is one of six countries benefitting from pilot activities through the “Pilot Program for Climate Resilience,” a global initiative funded by the World Bank’s Strategic Climate Fund that aims to reduce countries’ vulnerability to climate change in key areas. In addition to its participation in the recently completed MACC project, Dominica is also a participant in the “Special Program on Adaptation to Climate Change: Implementation of adaptation measures in coastal zones,” financed by the Global Environment Facility (GEF) that addresses the impacts of climate change on natural resources in four Caribbean countries. As well it is one of the countries being studied through the Caribbean Catastrophe Risk Insurance Facility’s “Economics of Climate Adaptation Initiative,” a research program that aims to estimate the economic impacts of climate change and the costs of adaptation in the Caribbean.

While current adaptation programming in Dominica focuses on a number of different sectors (e.g., tourism, agriculture, gender), it most frequently addresses needs in the areas of coastal zone management and improving the capacity of government to create an enabling environment for adaptation. The majority of projects emphasize capacity building, research and knowledge sharing; about a third plan to implement adaptation measures on the ground.

Table 2: Current Adaptation Projects and Programs active in Dominica

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.	Mainstreaming Adaptation to Climate Change:	The objective of the MACC project is to facilitate an enabling environment for climate	GEF Trust Fund; co-	CCCCC, CARICOM,	Capacity building;	2003–2009 (closed)	Government <i>Regional:</i> Antigua and

⁸⁸ UNFCCC, http://unfccc.int/essential_background/library/items/3599.php?rec=j&prirref=3348#beg

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
Caribbean Community (MACC) ⁸⁹	change adaptation in the Caribbean Community small islands and coastal developing states participating in this effort. Project components aimed to: (1) build regional capacity to collect and analyze data, thus expand the knowledge base on climate change impacts in order to assess the associated physical and socioeconomic vulnerabilities; (2) build in-country capacity to formulate and analyze adaptation policy options and finalize sectoral adaptation strategies for participating countries; (3) build capacity in preparation for a regional position for the United Nations Framework Convention on Climate Change; and (4) support public education and outreach programs by strengthening information access and data resources, and foster public awareness through technical assistance and capacity building.	financing Budget: US\$16 million	World Bank, Government of Canada, GEF, Government of US	Knowledge communication; Policy formation and integration			Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago
<i>In Dominica:</i> Further information required							
2. Special Program on Adaptation to Climate Change: Implementation of adaptation measures in coastal zones (SPACC) ⁹⁰	The Implementation of Adaptation Measures in Coastal Zones Project aims to support efforts by Dominica, Saint Lucia and Saint Vincent and the Grenadines to implement specific (integrated) pilot adaptation measures addressing primarily, the impacts of climate change on their natural resource base, focused on biodiversity and land degradation along coastal and near-coastal areas. The project also seeks to produce knowledge of global value on how to	GEF; co-financing Budget: US\$5.77 million	World Bank, CCCCC	Field implementation; Community-based adaptation	2006–2011	Coastal zones management; Biodiversity	<i>Regional:</i> Dominica, Saint Lucia, Saint Vincent & the Grenadines
<i>In Dominica:</i> A report on a SPACC technical forum held in Dominica in 2009 prioritized the following interventions: (1) creation of national park management plans, including sustainable land management provisions; (2) data collection and monitoring, including an assessment of data needs and the installation of meteorological stations in national parks; (3) installation of a storage and distribution system for irrigation water; and (4) the							

⁸⁹ GEF, <http://www.gefonline.org/projectDetailsSQL.cfm?projID=1084> and CCCCC, <http://caribbeanclimate.bz/projects/projects.html>

⁹⁰ CCCCC, <http://www.caribbeanclimate.bz/spacc/spacc.html> and GEF, <http://www.gefonline.org/projectDetailsSQL.cfm?projID=2552>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	implement adaptation measures in small island states that can be applied in other countries in the region, not participating in the project and even for islands in other regions of the world.	construction of greenhouses.					
3.	Pilot Program for Climate Resilience–Caribbean Regional Program	World Bank’s Strategic Climate Fund	National governments	Capacity building; Knowledge communication; Policy formation and integration	2008–present	Government	Global project with specific Caribbean component: Dominica, Grenada, Haiti, Jamaica, Saint Lucia, and Saint Vincent & the Grenadines
		<i>In Dominica:</i> Activities in Dominica may address the following priority areas: water availability, storage and distribution; natural disaster prevention and management; sustainable management of national parks; sustainable tourism; coastal protection; agricultural production and food security.					
4.	The Economics of Climate Adaptation Initiative ⁹¹	CCRIF Technical Assistance Programme	CCRIF, CCCCC, ECLAC, McKinsey and Company, and Swiss Re.	Research; Knowledge communication	2009–2011	Government	Regional: Anguilla, Antigua & Barbuda, Barbados, Bermuda, Cayman Islands, Dominica, Jamaica, and

⁹¹ DFID, <http://projects.dfid.gov.uk/project.aspx?Project=201353>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	incorporated into national development plans. An initial study has been produced. ⁹² The next phase of the project will include further engagement with countries via individual workshops to obtain feedback on results, engage in verification and enhancement of input data and areas for more details work, etc. Phase 3 will involve working closely with interested countries and other partners to enable the application of this methodology in all Caribbean countries.						Saint Lucia
<i>In Dominica: Further information required</i>							
5.	CARIBSAVE Climate Change Risk Atlas: Phase 1 ⁹³	DFID; AusAID Budget: £750,000 + AUS\$ 1,000,000	CARIBSAVE	Research; Capacity building	2010–2011	Tourism; Agriculture; Gender; Government	LAC Region: Antigua & Barbuda, Barbados, Belize, The Bahamas, Dominica, Dominican Republic, Grenada, Jamaica, Saint Kitts & Nevis, Saint Lucia, Saint Vincent & the Grenadines, Suriname, Turks & Caicos
<i>In Dominica: Further information required</i>							

⁹² CCRIF, <http://www.ccrif.org/sites/default/files/publications/ECABrochureFinalAugust182010.pdf>

⁹³ CARIBSAVE, <http://www.caribsave.org/index.php?id=5>; and DFID, <http://projects.dfid.gov.uk/project.aspx?Project=201634>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
6. Climate Change in the Organization of Eastern Caribbean States ⁹⁴	The project will focus on adaptation measures in the areas of coastal/marine zone management and freshwater resources management, and will seek to build an enabling environment for reducing vulnerability to climate change by improving the regulatory framework in support of national adaptation strategies. The program will also provide direct support at the country level for initiatives focusing on adaptation measures in areas of coastal zone management and freshwater resource management. It will be supported by appropriate public awareness and education program to raise the level of awareness on climate change and steps being taken to address or reduce impacts across the region.	USAID Budget: US\$2.5 million	OECS	Policy formation and integration; Field implementation	2011-?	Coastal zone management; Freshwater supply	OECS countries: Antigua and Barbuda, Dominica, Grenada, Saint Kitts & Nevis, Saint Lucia, Saint Vincent & the Grenadines
<i>In Dominica: Further information required</i>							

D. Proposed Adaptation Action

Adaptation projects and program presently proposed for implementation in Dominica were not identified through this review.

E. Assessment

Dominica has addressed adaptation at the policy level through the preparation of a national climate change adaptation strategy (CIF, 2009), and through the “Economics of Climate Adaptation Initiative,” the MACC project, and the “Pilot Program for Climate Resilience,” appears to be engaged in further policy formation and integration efforts to address the impacts of climate change. The country is also benefitting from participation in several adaptation projects that address the priority adaptation needs outlined in its National Communication. These needs include those related to coastal zones, agriculture, tourism, and risk reduction efforts. Gaps in current adaptation action appear to include a lack of activity within the socioeconomic sectors of human settlements and infrastructure, forestry

⁹⁴ USAID, http://www.usaid.gov/missions/bb/cc_oecs.html



and fisheries. However, it is possible that needs in these areas are being addressed through Dominica's more development focused programming.

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