

11.0 Uruguay

CATIE	Centro Agronómico Tropical de Investigación y Enseñanza (Spain) (Tropical Agriculture Research and Higher Education Centre)
CIFOR	Center for International Forestry Research
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
GEF	Global Environment Facility
IADB	Inter-American Development Bank
INIA	Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (Chile) (National Institute of Agricultural Research)
OAS	Organization of American States
OPP	Oficina de Planeamiento y Presupuesto
PNRCC	Plan Nacional de Respuesta al Cambio Climático (National Climate Change Response Plan)
RIOCC	Red Iberoamericana de Oficinas de Cambio Climático (Ibero-American Network of Climate Change Offices)
SNRCC	Sistema Nacional de Respuesta al Cambio Climático y la Variabilidad (National System to Respond to Climate Change and Variability)
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

A. Adaptation Needs and Priorities

Uruguay experiences climate hazards such as droughts and floods, along with frost, heat waves, hail and storms (Uruguay, 2010). It is estimated that Uruguay's temperatures will increase by 2° to 3°C by 2100; and rainfall is projected to increase in the entire country—around 10 per cent to 20 per cent on average, but more so in the summer (Uruguay, 2010).

Uruguay's First and Second National Communications to the United Nations Framework Convention on Climate Change (UNFCCC) (Uruguay, 1997; Uruguay, 2004) both look at agriculture, livestock and coastal zones in the context of adaptation. The Second National Communication also looks at the impacts of climate change on biodiversity, energy, freshwater and human health.

In addition to its National Communications, Uruguay has developed its National Plan on Climate Change (PNRCC) that identifies the vulnerability of its agricultural and terrestrial ecosystems, energy system, coastal zones, urban habitats, health sector and industry and services. Within this document, strategic adaptation measures are divided into the following groups: integrated risk management; water; energy; ecosystems and biodiversity; production and consumption (including agriculture, industry, tourism and consumption); and quality of life (including habitat and health) (SNRCC, 2010).

Through its key climate change documents, including a Third National Communication released in 2010, Uruguay has identified the following priority adaptation measures (SNRCC, 2010; Uruguay, 2004, 2010):

- *Agriculture*: Improve seed banks for genetically more adapted crops; and sustainable soil management, including direct seeding and other soil conservation methods.
- *Biodiversity*: Monitoring of changes in main ecosystems; delimitation, implementation and management of protected areas; and productive diversification.
- *Energy*: Extend studies on water availability; support hydropower plants; update time series on water data used in models for planning and operations; planning and maintenance of infrastructure involving consideration of climate risks; diversification of the energy matrix; and promotion of energy efficiency in the framework of the strategic guidelines of the national energy policy.
- *Coasts*: Promote integrated coastal zone management; establish monitoring systems on waves and beach profiles; and study degraded coastal areas.
- *Water*: Incorporate climate change in specific hydraulic projects; formulate and propose an effective national water policy that takes into account climate change; integrated water management; and assurance of the availability of water (including monitoring and efficiency measures).
- *Fishery*: Monitoring of the oceanographic variables of marine species; artificial shrimp cultures; and increased checks on water contamination.
- *Health*: Education, information and communication to prevent climate-related diseases; entomological monitoring for disease prevention; and creation of an inter-institutional work group on health and climate change.
- *Disaster Risk Management*: Improvement of the country's preparedness to respond to extreme climate events and variability, and implementation of insurance and dedicated funds to cover the country's production (mainly of agricultural goods) against climate-related hazards.
- *Ecosystems and Biodiversity*: Protection of terrestrial and coastal biodiversity ecosystems.

- *Production and Consumption*: For agriculture, actions proposed are: horizontal integration of farmers for more efficient water management; sustainable land management; animal and plant breeding; and the use of adapted species. Further measures are suggested for industrial production, tourism and consumption patterns.
- *Quality of life*: Sustainable development of cities; and preservation human health.

B. National Level Policies and Strategic Documents

Currently, Uruguay does not have one united national development plan, but the government agency responsible for planning aims at elaborating a long-term strategy. Working documents available on the government's website (OPP, 2011) do not indicate, however, any considerations of climate change impacts in the forthcoming strategy. However, a National System to Respond to Climate Change and Variability (SNRCC) was set up in 2009, and its function is to coordinate climate change action among public and private institutions at the national and local levels. In addition, in 2010, the SNRCC published the National Plan on Climate Change (PNRCC). For adaptation, the plan identifies priority strategic actions, and specifies institutional and capacity building measures to create an enabling environment for adaptation. Furthermore, Uruguay has submitted three National Communications, the only country in South America to have submitted more than two.

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.	First National Communication to the UNFCCC	Ministry for Housing, Land Planning and Environment	Published in 1997	Agriculture; Coastal zone management	This report mentions the results of vulnerability assessments in vulnerable sectors and sketches out some directions for adaptation.
2.	Second National Communication to the UNFCCC	Ministry for Housing, Land Planning and Environment	Published in 2004	Multi-sectoral	The Second National Communication looks at a range of sectors and presents a vulnerability analysis, key adaptation measures and details on implementation for each measure.
3.	Third National Communication to the UNFCCC	Ministry for Housing, Land Planning and Environment	Published in 2010	Multi-sectoral	The document draws heavily on the PNRCC (see below). The same vulnerability assessments and strategic adaptation options are recommended as in the PNRCC.
4.	National Plan on Climate Change	National System to Respond to Climate Change and Variability	Published in 2010	Multi-sectoral	This plan is the main instrument of the National System to Respond to Climate Change. It aims at coordinating, integrating and improving climate change adaptation and mitigation in key sectors. It proposes strategic adaptation

Name of Policy Action	Government Division Responsible	Status	Sector(s) of Focus	Summary description
				actions for several areas.

C. Current Adaptation Action

A low number of adaptation projects compared to other South American countries are presently being implemented in Uruguay. The majority of these actions are through Uruguay's participation in multi-country initiatives; fewer projects developed solely for implementation in Uruguay are currently being implemented. Most programming focuses on research, capacity building and development of the policy structure needed to support adaptation. The specific sectoral focus of current initiatives includes agriculture, freshwater supply and coastal zone management, all of which have been identified as priority areas for action by the national government.

Table 2: Current Adaptation Action in Uruguay

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
National Action							
1. Strengthening of Risk Management Capacity of Departments	Strengthen risk management capacities on the departmental level through the creation and consolidation of emergency committees, capacity building, building links between national and local level, integration of risk management, adaptation and development, maps and plans, early warning systems.	UNDP	UNDP, Presidency, OPP	Capacity building	2008–2010	Disaster risk management	Various departments
2. Implementing Pilot Climate Change Adaptation Measures in Coastal Areas of Uruguay ²⁴⁴	Eliminate barriers to adaptation through policies and practices relating to land use planning and coastal zone management that increase the resilience of coastal ecosystems.	GEF, Government of Uruguay Budget: US\$3.7 million	UNDP	Field implementation	2008–2011	Coastal zone management	Coastal areas

²⁴⁴ GEF, <http://gefonline.org/projectDetailsSQL.cfm?projID=3134>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
Participation in Regional and Global Actions							
3.	Territorial Approach to Climate Change (TACC) ²⁴⁵	UNDP	UNEP; UNDP; UNITAR; UN-Habitat; UNCDF	Capacity building; Knowledge communication	2009 - ?	Government	Global: Albania, Algeria, Colombia, Nigeria, Peru, Senegal, Uganda, Uruguay and others
		In Uruguay: The project is being implemented in Metropolitan Region (Canelones, Montevideo and San José departments)					
4.	Capacity Development for Policy Makers: Addressing climate change in key sectors ²⁴⁶	United Nations Foundation and the Governments of Switzerland, Finland, Spain and Norway. \$6,953,413 USD	UNDP is implementing the project in partnership with the UNFCCC Secretariat, International Strategy for Disaster Reduction and the United Nations	Capacity building; Knowledge communication	2008–2010	Multi-sectoral	Global: 20 countries ²⁴⁷ including Colombia, Ecuador, Paraguay, Peru and Uruguay

²⁴⁵ UNDP, <http://www.unep.org/roap/Activities/ClimateChange/TerritorialApproachtoClimateChangeTACC/tabid/6844/Default.aspx>

²⁴⁶ UNDP, <http://www.undpcc.org/>

²⁴⁷ These countries are Algeria, Bangladesh, Colombia, Costa Rica, Dominican Republic, Ecuador, Gambia, Honduras, Liberia, Namibia, Nepal, Nicaragua, Niger, Paraguay, Peru, Saint Lucia, Togo, Turkmenistan and Uruguay.

Name		Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
				Environment Programme				
			In Uruguay: The focus area is not chosen yet. ²⁴⁸					
5.	Climate Policy 2012: Extension of the global project “Capacity Development for Policy Makers to Address Climate Change” ²⁴⁹	The UNDP Regional Bureau for Latin America and the Caribbean has expanded on the global project, “Capacity Development for Policy Makers to Address Climate Change” in the LAC region to provide technical support to national policy makers and its Country Offices and strengthen capacity on budgetary issues related to the post-2012 climate regime. Activities include technical backstopping for countries that begin to consider adaptation to climate change in their National Development Plans.	Spain, UNDP Budget: US\$3.6 million	UNDP	Capacity building; Policy formation and integration	2009–2011	Government	LAC Region: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela
			In Uruguay: see description for the project “Capacity Development for Policy Makers to Address Climate Change.”					
6.	Climate Change Vulnerability Evaluation of Coastal and Marine Areas ²⁵⁰	This project is part of the Ibero-American Programme on the Evaluation of Impacts, Vulnerability and Adaptation to Climate Change (PIACC) and aims to determine the	Spain	ECLAC, University of Cantabria, national	Capacity building; Assessment; Knowledge	2009–2011	Coastal zone management	Most RIOCC countries ²⁵² including: Argentina,

²⁴⁸ UNDP, <http://www.undpcc.org/content/uruguay-en.aspx>

²⁴⁹ UNDP, http://www.undpcc.org/content/act_latin-en.aspx and http://www.undp.org/climatechange/docs/EEG_Flyer_EN.pdf

²⁵⁰ RIOCC, http://www.lariocc.net/riocc_principal/es/proyectos_iniciativas/proy_marc_piacc.htm

Name		Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
		impacts of climate change on the coasts of any country in Spanish and Portuguese speaking countries of Latin America and the Caribbean. It has a particular focus on the dynamics of beaches, estuaries, lagoons, deltas, cliffs and dunes, coastal erosion, flood risks and coastal infrastructure. This initiative is linked to the project “Economics of Climate Change in Central America - Phase II” ²⁵¹ funded by IADB, UK, Denmark, Spain, EU and Germany.		counterparts	communication			Brazil, Chile, Colombia, Ecuador, Peru, Uruguay and Venezuela
			In Uruguay: Further information required.					
7.	Mitigation and Adaptation to Climate Change in Sustainable Forest Management in Ibero-America ²⁵³	Part of PIACC, this project aims to generate new information and knowledge and strengthen the capacity of research institutions in the forestry sector on linking sustainable forest management with adaptation and mitigation to climate change. This includes strengthening specific research activities, developing and disseminating methodologies and case studies, strengthening human resources and fostering the representation of the forest sector in the regional and international dialogue.	Spain	INIA, CIFOR, CATIE, Polytechnical University of Madrid	Capacity building; Research; Knowledge communication	2009–2011	Forestry	RIOCC countries, including: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela
			In Uruguay Further information required.					
8.	Adaptation to Climate Change of Wheat and Potatoes Productive Systems ²⁵⁴	The objective of this program is to contribute to the improvement of the adaptive capacity of the region, through an increase in the competitiveness of the productive systems of potato and wheat to climate change in South	IADB, co-financing Budget: US\$920,000	Instituto de Investigaciones Agropecuarias	Research; Capacity building	2010 - ?	Agriculture	Regional: Chile, Peru, Uruguay

²⁵² The 21 member countries of RIOCC are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Portugal, Spain, Uruguay and Venezuela.

²⁵¹ ECLAC, <http://www.eclac.org/mexico/cambioclimatico/index.html>

²⁵³ Proyecto MIA, <http://www.proyectomia.com/>

²⁵⁴ IADB, <http://www.iadb.org/en/projects/project,1303.html?id=rg-t1657>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	America. Specifically, the project will support the selection and development of genotypes with increased tolerance to drought and high temperatures. The project is being led and implemented by local institutions.	<i>In Uruguay:</i> Further information required.					
9.	Sustainable Management of the Water Resources of the la Plata Basin with Respect to the Effects of Climate Variability and Change ²⁵⁵	GEF, national governments <i>Budget:</i> US\$62.5 million	UNEP, OAS, National environmental ministries	Capacity building; Policy formation and integration	2011–2015	Watershed management	<i>Regional:</i> Argentina, Bolivia, Brazil, Paraguay and Uruguay
		<i>In Uruguay:</i> The projects looks at upper and lower parts of the Uruguay river and its linkages to agriculture, energy, etc.					
10.	Review of the Economics of Climate Change in South America ²⁵⁶	IADB, UK, Denmark, Spain, EU, Germany	ECLAC	Assessment; Policy formation and integration	2008–2009	Coastal zone management; Government	<i>Regional:</i> Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela
		<i>In Uruguay:</i> Further information required.					
11.	Integrating Climate Change Adaptation into National Development Processes in Latin America	Spain <i>Budget:</i> US\$4,375,233	UNEP	Assessment; Capacity building; policy	2010–2013	Government; Agriculture; Freshwater supply	<i>LAC Region:</i> Phase 1: 19 RIOCC countries ²⁵⁷

²⁵⁵ IW-LEARN, http://iwlearn.net/iw-projects/Fsp_112799469815

²⁵⁶ ECLAC, http://www.eclac.org/dmaah/noticias/noticias/2/35232/samaniego_recc.pdf

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
and the Caribbean	associated capacity of key regional and national institutions. The project will: undertake impact and vulnerability assessments; identify good practices and gaps in integrating adaptation into policy and plans; and support adaptation planning and its integration into national development processes. It will focus on the most vulnerable sectors and ecosystems, especially water and agriculture.			formation and integration			Phase 2: 3-5 countries (Dominican Republic 1st country selected)
In Uruguay: Further information required.							

D. Proposed Adaptation Action

Only one proposed adaptation action for implementation in Uruguay has been identified, a recently submitted proposal to the Adaptation Fund for an agriculture project.

Table 3: Proposed Adaptation Actions in Uruguay

Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
1. Building Resilience To Climate Change In Vulnerable Smallholders ²⁵⁸	To contribute to building national capacity to adapt to climate change and variability focusing on critical sectors for the national economy, employment and exports. The project would focus on supporting livestock smallholders in selected Landscape Units of the Basalto and the East Hills regions to build resilience to climate change.	Capacity building; Research	Agriculture; Trade	Basalto, East Hills
Notes: Project submitted to Adaptation Fund in January 2011. Approval of project formulation grant provided March 2011. To be implemented by the National Innovation and Research Agency and executed through the Ministry for Agriculture and Livestock. Total requested funding is US\$7.35 million.				

²⁵⁷ The 19 RIOCC countries are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

²⁵⁸ Adaptation Fund, http://www.adaptation-fund.org/endorsed_concepts

E. Assessment

Uruguay has a relatively good basis for adaptation decision-making and project implementation in terms of both existing vulnerability assessments and reports (three National Communications, several policy research projects) and existing institutions and policies (such as the National System to Respond to Climate Change and Variability and National Plan on Climate Change), coupled with a range of strategic adaptation actions have been identified for key sectors. However, most adaptation needs remain unaddressed. Only one project per sector has been identified for agriculture, water and coastal zone management, whereas other priorities such as energy, human health, disaster risk management and gender have not yet been tackled.

References:

Oficina de Planeamiento y Presupuesto [OPP] (2011). Oficina de Planeamiento y Presupuesto. Retrieved from www.opp.gub.uy.

Sistema Nacional de Respuesta al Cambio Climático y la Variabilidad [SNRCC] (2010). Plan Nacional de Respuesta al Cambio Climático. Diagnóstico y Lineamientos Estratégicos.

Uruguay (1997). Primera Comunicación Nacional del Uruguay. Retrieved from http://unfccc.int/essential_background/library/items/3599.php?such=j&symbol=URY/COM/1%20B#beg

Uruguay (2004). Segunda Comunicación Nacional a la Conferencia de la Partes en la Convención Marco de las Naciones Unidas sobre el Cambio Climático. Retrieved from http://unfccc.int/essential_background/library/items/3599.php?such=j&symbol=URY/COM/2%20B#beg

Uruguay (2010). Tercera Comunicación Nacional a la Conferencia de la Partes en la Convención Marco de las Naciones Unidas sobre el Cambio Climático. Retrieved from http://unfccc.int/essential_background/library/items/3599.php?such=j&symbol=URY/COM/4%20E#beg