

Climate Change Law in Latin America

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Abstract

In this paper, we argue that climate change law in Latin America is in its infancy, although advancing at a steady pace. Most countries in the region have adopted soft law instruments, including climate change strategies, and, in some cases, climate change plans of action or sectoral action plans for adaptation or forestry. Brazil, Mexico, Colombia and Ecuador have more coherent legal frameworks for climate change, although at the time of writing, only Brazil had adopted a substantive climate change law. This chapter finds that frameworks related to climate change mitigation are more advanced than those dealing with adaptation, even though several countries in the region identify adaptation as a key priority for their future development. It argues that policy implementation remains challenging, with mainstreaming across sectors, allocation of budget and presidential support being identified as crucial elements and recurring challenges. The chapter also finds that subnational entities are increasingly involved in the development and implementation of climate change policy tools at the local level.

Climate Change Law in Latin America

Soledad Aguilar and Eugenia Recio*¹

1. INTRODUCTION: CLIMATE CHANGE LEGISLATION IN LATIN AMERICA

Climate Change law in Latin America is in its infancy, although advancing at a steady pace. Most countries in the region have adopted soft-law instruments on climate change, including strategies, plans of action for implementing strategies or sectoral action plans for adaptation or forestry. At the time of writing, only one country in the region, Brazil, has passed a substantive law on climate change. Several countries, including Colombia, Dominican Republic, Mexico and Ecuador, have incorporated mitigation and adaptation objectives into their national development plans and are implementing related targets, providing budget support to climate change activities and mainstreaming the issue across sectors.

This chapter reviews the salient characteristics of climate change legislation in Latin America, focusing first on laws and decrees regulating climate change and then looking at the broader normative context, also including soft-law instruments, such as strategies, policies and action plans that guide policy-makers with respect to climate change in Latin America. This chapter does not attempt to provide an exhaustive analysis of climate change law in the region, but represents key examples and identifies best practices and normative trends that guide the development of climate law in Latin America.

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Interviews by the authors with climate change decision-makers in seventeen countries in Latin America² on climate change regulation and, in particular, on adaptation revealed that when dealing with the environment and climate change, it is important to take into consideration political will at the highest level of government, budgetary allocations and mainstreaming of climate change objectives within a broad range of sectors. It is certainly not adequate to infer, without looking at these additional variables, that the mere approval of a climate change policy entails its implementation and/or enforcement.

Our analysis of climate legislation in Latin America will thus complement the description of main trends in climate change law in the region with examples of national climate change strategies and policies at subregional, national and subnational levels, including considerations about the allocation of competences and examples on enforcement and budgetary allocations.

2. CONSTITUTIONAL LAW AND CLIMATE CHANGE IN LATIN AMERICA

Countries in Latin America have relatively similar Constitutions and codified civil law systems. Originally inspired by the 1787 United States Constitution, the 1812 Spanish Constitution from Cadiz and the French civil codes, legal systems in Latin America were designed as presidential democracies with a balanced distribution of powers. In practice, they often have, however, strong presidencies with a wide degree of discretion and control by the Executive Power over Congress.³ In line with this, we found that engagement by presidents and presidential support were identified by policy makers interviewed as key to the advancement, or slow-down, of climate-related policies in Latin America, and are thus a relevant aspect to consider when evaluating climate-related legislation. Brazil presents the most visible example, with a flurry of climate-related activity during the presidency of Luiz Inácio Lula da Silva (2003-2011) and a considerable slow-down during the current presidency of Dilma Rousseff, a former mines and energy minister.

² The authors conducted some of the interviews as part of a consultancy for the Regatta project carried out by UNEP/Regional Office for Latin America and the Caribbean on adaptation law in Latin America. Interviewees included experts from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay.

³ Jorge Carpizo, "Características esenciales del sistema presidencial e influencias para su instauración en América Latina", 8 *Anuario de Derechos Humanos* (2007), at 49, 62 and 74.

In terms of environmental rights, most countries in Latin America have undertaken constitutional reforms since the mid-1990s, incorporating environmental rights into their constitutions.⁴ Notably, constitutions both in Ecuador and Dominican Republic make an explicit reference to addressing climate change as a responsibility of the State. The Constitution of Ecuador tasks the national government with addressing climate change mitigation by adopting measures to limit greenhouse gas emissions and deforestation, and protecting the population at risk.⁵ The Constitution of Dominican Republic establishes land planning taking into account the climate change adaptation needs as a national priority.⁶ Both of these examples highlight some of the key priorities for the region in addressing climate change, which involve building the resilience of vulnerable populations through adaptation to extreme weather events and the protection of forests for climate change mitigation and adaptation purposes.

3. NATIONAL CLIMATE CHANGE LAWS IN LATIN AMERICA

Addressing climate change through hard law instruments, congressional laws or presidential decrees that regulate climate change from a substantive perspective is not abounding in Latin America. However, all of the seventeen countries evaluated have developed regulations and institutions for the implementation of projects under the Kyoto Protocol's Clean Development Mechanism (CDM), with each of them having registered at least one CDM project.⁷ Apart from this, at the time of writing, Brazil is the only country in Latin America with a substantive climate change law approved by its Congress. Several countries in the region, like Guatemala, are in the

⁴ To consult the Constitutions of countries in Latin America and their reforms, see: Georgetown University Center for Latin American Studies, "Political Database of the Americas", 2012, available at: <http://pdba.georgetown.edu/> (last accessed on 15 February 2012).

⁵ Constitution of Ecuador (*Constitución de la República del Ecuador*), 2008, Art. 414. Art. 413 of the Constitution of Ecuador also indicates that the State will promote energy efficiency, the development and use of environmentally clean and healthy technologies and practices, as well as diversified, low impact renewable energy, that do not place food sovereignty, the environmental balance of ecosystems, or the right to water, at risk.

⁶ Constitution of the Dominican Republic (*Constitución de la República Dominicana, 26 January 2010*), 2010, Art. 194.

⁷ CDM projects in Latin America and the Caribbean represent 15% of the overall number of CDM projects, with Brazil issuing more than 7% of Certified Emission Reductions globally, and Mexico around 1.5%. Source: UNFCCC, "CDM Database", 2012, available at: <http://cdm.unfccc.int> (last accessed on 23 February 2012).

process of developing, or have a draft climate change law under consideration by the Congress.⁸ Other countries have adopted national strategies or policies on climate change through presidential decrees or ministerial resolutions. Given the programmatic approach of these instruments, we have chosen to analyse them below in the section four.

3.1. The Brazilian Climate Change Law

Brazil adopted Law N. 12.187 in December 2009, immediately following the 2009 UN Climate Change Conference in Copenhagen. The Law includes a voluntary national target to reduce greenhouse gas emissions compared to business as usual by 2020. The National Policy on Climate Change Law,⁹ and its regulatory Decree,¹⁰ provide a leading example of climate change law in Latin America given that they design a complete architecture for climate change regulation for Brazil. They establish institutional arrangements and legal mechanisms to fulfil mitigation and adaptation objectives, as well as to adopt an economy-wide mitigation target and sectoral targets and objectives.

Law N. 12.187 first focuses on the principles applicable to all climate change- related activities, such as the consideration of future generations and sustainable development in Article 3. It then outlines objectives and directives for climate change policy in Articles 4 and 5, including the development of a low-carbon economy and the promotion of scientific and technical research to identify vulnerabilities and adopt adequate adaptation measures.

Article 7 of the Law defines the institutional structure for dealing with climate change at the national level, including: a Climate Change Forum led by the president of Brazil and involving all major stakeholders and governments agencies; three inter-ministerial commissions; and a research network. Article 6 defines instruments for climate change policy in Brazil, including

⁸ The draft climate change law currently under debate in Guatemala is law N. 4139, named "Framework law for the regulation of vulnerability reduction, mandatory adaptation to the effects of climate change and mitigation of greenhouse gases" (*Ley Marco para Regular la Reducción de la Vulnerabilidad, la Adaptación Obligatoria ante los efectos del Cambio Climático y la Mitigación de Gases Efecto Invernadero*) and it includes main components of Guatemala's National Policy on Climate Change. The project can be accessed at: [http://www.infoiarna.org.gt/red%20iarna/2010/Red%20IARNA%2010\(30\)/adjuntos/dictamen-iniciativa-ley-cambio-climatico.pdf](http://www.infoiarna.org.gt/red%20iarna/2010/Red%20IARNA%2010(30)/adjuntos/dictamen-iniciativa-ley-cambio-climatico.pdf), last accessed on 19 March 2012.

⁹ Law No. 12,187 (2009) on the National Policy on Climate Change, *Diario Oficial da União (D.O.U.)* of 29 December 2009, at 109 (extra edition).

¹⁰ Decree N. 7390 (2010) on the Regulation of articles 6, 11 and 12 of Law 12.187, *Diario Oficial da União (D.O.U.)* of 10 December 2010, at 4.

strategies, plans, monitoring mechanisms and financial schemes to support climate change action, including the creation of the Brazilian emission reductions market.

It is also interesting to note that the draft law approved by Congress included several sections related to the gradual phase-off from fossil fuel dependence, subsequently vetoed by the president.

The Regulatory Decree N. 7390 establishes specific mitigation targets for different economic sectors in Brazil concerning land-use change, energy, industrial processes and wastes, as well as agriculture. It calls for the adoption of sectoral mitigation and adaptation plans that include targets, actions to be implemented, policy instruments and incentives, as well as sectoral competitiveness studies to estimate the costs and impacts of such policies.¹¹

In addition, Brazil is the only country in Latin America to have created a specific structure to compile advances in research related to climate change in Brazil, including on vulnerability and adaptation. The Brazilian Panel on Climate Change, designed as a mirror to the Intergovernmental Panel on Climate Change, is expected to become a model in the region on how regulations can be used to enhance the compilation and analysis of scientific evidence on climate change, and to provide regular scientific updates for policy makers.¹²

The result of Brazil's climate legal architecture, compared to most countries in the region, is a high degree of institutional engagement and the spread of climate change-related activities at different levels of government. The legal architecture has also lead to the allocation of significant resources, including through the channelling of oil revenues, to enforce the country's climate change policy (this topic will be addressed in section 8).

4. NATIONAL CLIMATE STRATEGIES AND POLICIES

Most countries in Latin America rely on policy instruments, such as strategies and action plans, to guide policy makers on climate change issues. These soft-law instruments thus currently constitute the primary source for climate change law in most Latin American countries. The process leading to the adoption of climate strategies as well as their legal status differs between

¹¹ Ibid.

¹² Information on PBMC - Brazilian Panel on Climate Change (*Painel Brasileiro de Mudancas Climaticas*) is available at: <http://www.pbmc.coppe.ufrj.br/en/> (last accessed on 24 February 2012).

countries. Some countries, like Colombia, Dominican Republic, Mexico and Ecuador, have included climate change into their national planning laws or strategies; others have simply adopted climate change strategies within ministries or as action plans for state programs and activities.¹³ A few countries, like Peru¹⁴ and Guatemala,¹⁵ sought to give legal force and permanence to their climate change strategies by adopting them as Decrees or equivalent legal norms, even if their elaboration was led by one particular ministry or body.

In terms of civil society's involvement, only a few countries, like Colombia, have regulated the involvement of civil society in the design of their climate change strategies.¹⁶ Several other countries have integrated civil society's contributions through *ad hoc* participatory processes. In some cases this has been done for the purposes of adopting a climate change specific strategy, including in Argentina, Brazil, Mexico, Uruguay, Costa Rica and Chile. In other cases this has been done for the adoption of national development plans or strategies, like in the Dominican Republic.¹⁷

The instruments to define national priorities for climate change mitigation and adaptation vary in Latin America. From broader to more specific instruments, countries have incorporated climate change priorities in:

- national development plans and strategies (Ecuador, Colombia, El Salvador, the Dominican Republic, Mexico);
- environmental policies and strategies (Cuba, Peru); and/or

¹³ Uruguay, for example, created a national system for climate change response and variability, under which an action plan was published and endorsed by its former President. Uruguay, 2010. *Plan Nacional de Respuesta al Cambio Climático*, January 2010, available at: <http://www.cambioclimatico.gub.uy/index.php/plan-nacional> (last accessed on 13 March 2012).

¹⁴ Supreme Decree N° 086-2003-PCM on Peru's Climate Change Strategy, *Diario Oficial "El Peruano"* of 27 October 2003.

¹⁵ *Acuerdo Gubernativo* N. 329-2009 on Guatemala's Climate Change Policy, of 9 December 2009.

¹⁶ The principle of public participation in the environmental sector was incorporated in Colombia's Law N.99 of 1993 as part of the duties of the Ministry of Environment to elaborate environmental policies with the participation of communities and within the functions of the regional autonomous corporations (Arts. 2 and 31). Concerning the diffusion of relevant information on climate change, Colombia also adopted a National Strategy for Environmental education and awareness on climate change in 2010 (*Estrategia Nacional de educación, formación y sensibilización de públicos sobre cambio climático*) which was prepared by an intersectoral and interinstitutional body named "Table Article 6 of UNFCCC". The Strategy is available at: http://www.pnud.org.co/img_upload/36353463616361636163616361636163/Estrategia_de_Educacion_CC.pdf (accessed on 27 February 2012).

¹⁷ Soledad Aguilar and Eugenia Recio, *Fichas de País: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, Report prepared for the REGATTA project, UNEP/ROLAC, November 2011, (official publication forthcoming).

- specific climate change policies or strategies (Brazil, Chile, Mexico, Guatemala, Costa Rica, Honduras,¹⁸ Panama¹⁹ and Peru).²⁰

The countries that are still in the process of adopting climate change specific policies or strategies include Argentina and Ecuador.

A good combination, in this regard, seems to be that presented by some countries like Mexico,²¹ which have a specific climate change policy stemming from their national development plan. In the case of Mexico, this allows climate-related actions to access budget funding provided by the government for national development priorities despite the fact that the strategy has not been approved by law.²²

In terms of substance, we find that strategies for climate change present a broad variety in terms of scope and focus. In most cases, these strategies have been developed by the ministry of the environment, often in collaboration with other relevant ministries.²³ These policy instruments establish national objectives and priorities both for mitigation and adaptation. As planning tools, they are aimed at public authorities, providing orientation and mandates to be integrated within their activities. However, as their objective is to provide guidelines for action, they are, in most cases, not subject to specific controls concerning their implementation and enforcement. In some countries, however, the legal framework requires that institutions provide information on the

¹⁸ Honduras adopted a National Strategy on Climate Change in 2010 (*Estrategia Nacional de Cambio Climático Honduras - ENCC*) in line with its national development plan. The Strategy is available at: <http://cambioclimaticohn.org/uploaded/content/category/2129570286.pdf> (last accessed on 28 February 2012).

¹⁹ Panama adopted in 2007 the National Policy on Climate Change including principles, objectives and lines for action on the issue and is currently working on a more specific strategy for climate change. See Executive Decree N. 35 of 4 April 2007 on the national policy on climate change.

²⁰ Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 17..

²¹ Mexico adopted a Special Programme for Climate Change 2009-2012, elaborated on the basis of the National Strategy for Climate Change (2007). Government of Mexico. See "Programa Especial de Cambio Climático 2008-2012 (PECC)", 2009, available at: <http://www.cambioclimatico.gob.mx/images/stories/PDF/pecc.pdf> (last accessed on 17 February 2012).

²² For further information on the role of national development plans in integrating climate change priorities see section 4.1.

²³ Soledad Aguilar and Eugenia Recio, "Estudio Regional de la integración de la Adaptación en los marcos legales y la planificación en América Latina", Report prepared for the REGATTA project, UNEP/ROLAC, November 2011.

implementation of their plans and policies, as for example in Peru²⁴ and Paraguay²⁵, where the National Office of the Comptroller General performs audits on the implementation of the United Nations Framework Convention on Climate Change (UNFCCC)²⁶ at the national level.

Based on such strategies, some countries are working to further specify actions through the adoption of climate change action plans: for example, Chile developed a climate change action plan²⁷ and Costa Rica is working on one.²⁸

Other countries are focusing their actions on adopting sectoral plans on climate change. For example, Colombia is focused on developing a plan for adaptation, a low-carbon strategy focused on mitigation issues, a strategy for REDD+ and a strategy for financial protection for disasters.²⁹ Along the same lines, numerous countries are working or already adopted agriculture or agroforestry sectoral plans, including Chile, Costa Rica and Brazil.³⁰

²⁴ For further information on the process applied by the Office of the Comptroller General, please refer to La Contraloría General de la República”, available at: <http://www.contraloria.gob.pe> (last accessed on 17 February 2012).

²⁵ A report presented in 2009 by the Office of the Comptroller General in Paraguay on the implementation of the UNFCCC for the period 2005-2008 highlighted the need to enhance implementation of institutions and provisions adopted for that purpose, and required the Secretary of Environment to present a Management plan for enhancing implementation. For further information see: Contraloría General de la República de Paraguay, Dirección General de Control de la Gestión Ambiental, “Informe Final”, 2009, available at: http://www.contraloria.gov.py/index.php?option=com_docman&task=doc_view&gid=3586 (last accessed on 23 February 2012).

²⁶ United Nations Framework Convention on Climate Change, 9 May 1992, New York, in force 21 March 1994, 31 *International Legal Materials* (1992), 849.

²⁷ Chile’s Plan of Action for Climate Change aims at refining future vulnerability scenarios in prioritized sectors to assess the environmental, socio-economic and health impacts of climate change and enable the adoption of national and sectoral measures. Government of Chile, “Plan of Action for Climate Change 2008-2012” (*Plan de Acción Nacional de Cambio Climático*), at: http://www.mma.gob.cl/1257/articles-49744_plan_01.pdf (last accessed on 18 September 2011).

²⁸ Despite having adopted a National Strategy on Climate Change in 2009, Costa Rica is currently working on a Climate Change Plan of Action to incorporate specific information on activities required to implement the Strategy. Ministry of Environment, Energy and Telecommunications of Costa Rica, *National Strategy for Climate Change* (San José: Calderón y Alvarado, 2009). The Strategy identifies five main areas for action: mitigation, vulnerability and adaptation, metrics, capacity development and technology transfer and education and public awareness.

²⁹ The mandate to develop these sectoral strategies emerges from the National Council for Economic and Social Policies (CONPES) “Institutional Strategy for the articulation of policies and actions on climate change in Colombia, Document N.3700” (*Estrategia institucional para la articulación de políticas y acciones en materia de cambio climático*), available at: <http://www.dnp.gov.co/LinkClick.aspx?fileticket=2yrDLdRTUKY%3D&tabid=1260> (last accessed on 20 February 2012.); and Law N. 1450 of 16 June 2011 on the National Development Plan 2010-2014 “Prosperity for all.”

³⁰ Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 17.

Some countries have even adopted several climate change-related planning instruments, which could represent a challenge both in terms of avoiding overlaps and ensuring their implementation. This is, for example, the case of Peru, which has adopted climate change related objectives in its National Environmental Policy (2009),³¹ National Strategy on Climate Change (ENCC, 2003),³² Plan of Action for climate change mitigation and adaptation introduced in December 2010 by the Ministry of Environment (MINAM) and the National Environmental Action Plan 2010-2012³³ adopted in 2011. As long as these plans target different areas of public policy, or translate into concrete actions, overarching principles and goals, they are useful components of a legal framework. However, the proliferation of strategic instruments can lead to a more chaotic and possibly less effective implementation, in particular since climate change plans already need to be harmonized with existing sectoral instruments, such as disaster reduction and agriculture strategies to ensure coherent policy frameworks.

4.1. Mainstreaming Climate Change priorities within Development Plans and sectors

After a period of abandoning the exercise of planning for development,³⁴ many Latin American countries have returned to a stronger involvement of governments in state planning. Despite difficulties and challenges, particularly in terms of further articulating general objectives with their implementation at the sectoral and institutional level and the allocation of budget, the return of planning for development in many countries in Latin America is seen as an indication of a "renewed political interest in defining each country's future."³⁵ The consideration of climate change in national development plans and strategies provides a stronger basis for mainstreaming climate change mitigation and adaptation priorities into relevant sectors. The examples of

³¹ Supreme Decree N. 012-2009-MINAM on the National Environmental Policy, *Diario Oficial "El Peruano"*, of 23 May 2009.

³² Supreme Decree N. 086-2003-PCM on Peru's Climate Change Strategy, *supra*, note 17. By Executive Decree PCM-046-2010 the Strategy is considered a government's policy.

³³ Supreme Decree N. 014-2011-MINAM on the National Environmental Action Plan 2010-2012, *Diario Oficial "El Peruano"*, of 9 July 2011.

³⁴ Jorge Leiva, *Instituciones e Instrumentos para el Planeamiento Gubernamental en América Latina* (Santiago: UN Economic Commission for Latin America and the Caribbean - ECLAC, 2009).

³⁵ Instituto Latinoamericano y del Caribe de Planificación Económica y Social (ILPES), UN Economic Commission for Latin America and the Caribbean - ECLAC, "Panorama de la gestión pública en América Latina. En la Hora de la Igualdad", 2011, available at: http://www.eclac.org/publicaciones/xml/9/42339/PANORAMA_GP_H_FINAL.pdf (last accessed on 15 February 2012), at 17-20.

Colombia, Ecuador, Costa Rica, El Salvador,³⁶ Mexico and Dominican Republic, which have already included climate change in their highest policy instrument for development planning, also give an indication of those countries that already see this topic as pivotal for development.

Colombia is a good example of including climate change priorities into its national development plan and mainstreaming climate change from national planning into sectoral planning. Colombia's 2010-2014 National Development Plan, entitled "Prosperity for All," includes climate change as one of its strategic lines and provides a mandate for the implementation of the National Policy on Climate Change and the configuration of the National System for Climate Change to strengthen information management and the provision of financial resources for adaptation and mitigation projects. It also mandates the development of a national plan for climate change adaptation based on a vulnerability assessment and a low-carbon strategy, in collaboration with regions and sectors, which also considers reducing emissions from deforestation. The Plan incorporates specific targets to be developed up to 2014, including the adoption of four sectoral low-carbon strategies, three additional adaptation sectoral plans and 83 updated plans for river basin management considering climate risks.³⁷ It also seeks to increase the amount of CDM projects from 158 to 300, and ensure 200.000 hectares of avoided deforestation.

The Dominican Republic has recently adopted its National Development Strategy 2030 by law.³⁸ The Strategy includes among its four objectives in Article 10 the search for a society of environmentally sustainable production and consumption that manages with equity and efficacy risks, environmental and natural resources protection and promotes an adequate adaptation to climate change. The Strategy also includes indicators that must be subject to systematic assessment, including on: environmental protection and enhancing adaptation to climate change³⁹; poverty and inequality reduction; and innovative and environmentally sustainable economy.

³⁶ El Salvador incorporated climate change mitigation and adaptation as a priority in the National Development Plan 2010-2014 (*Plan Quinquenal de Desarrollo 2010-2014*), San Salvador, 2010.

³⁷ Law N.1450 of 16 June 2011 on Colombia's National Plan for Development 2010-2014, (*Prosperidad para Todos*), at 559-593.

³⁸ Law N.1-12 on the Dominican Republic's National Development Strategy 2030 (*Estrategia Nacional de Desarrollo 2030*), *Gaceta Oficial* (G.O.) 26 January 2011.

³⁹ Objective 4.3.1, Dominican Republic's National Development Strategy 2030, *supra*, note 40, at 50-51.

Mainstreaming climate change also takes place through the amendment or reform of existing planning and policy instruments. For example, Cuba's updated national environmental strategy, currently in the process of adoption, incorporates emerging concerns and priorities, including climate change.⁴⁰

Costa Rica presents another example of efforts to mainstream climate change issues. It first incorporated the objective of achieving the carbon neutrality in its National Development Plan 2011-2014,⁴¹ then established objectives and priorities in its Climate Change Strategy, and finally adopted a Government Agreement that requires all public institutions, local governments and autonomous institutions to elaborate and implement a plan of action for the short-, medium- and long-term, considering clear objectives on climate change mitigation, adaptation, capacity building and technology transfer, and education.⁴²

Notably, some of the countries that included climate change priorities in their national development plans and are working to develop substantive and robust strategies, like Colombia, Ecuador and Mexico, reportedly show significant progress in mainstreaming climate change throughout sectors.⁴³

4.2. Balance between mitigation and adaptation

Circumstances in Latin American countries differ in terms of climate change impacts and mitigation needs, but there are several key traits shared by the region. For example, countries are shifting from a focus on mitigation, originally geared towards regulating the implementation of CDM projects, towards an increasing consideration of adaptation issues. There is a growing acknowledgement of the shared vulnerability to extreme weather events among those countries with coastlines in the Caribbean or subject to El Niño/La Niña-Southern Oscillation

⁴⁰ The Cuban Environmental Strategy 2011-2015 (*Estrategia Ambiental Nacional*) is reportedly in process of adoption. Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 17..

⁴¹ Government of Costa Rica, "National Development Plan 2011-2014 (*Plan Nacional de Desarrollo 2011-2014*. "María Teresa Obregón Zamora"), 2010, available at: <http://documentos.mideplan.go.cr/alfresco/d/d/workspace/SpacesStore/122fcd1c-53a7-47a7-a0ad-84cac6f1d7b9/PND-2011-2014-Maria-Teresa-Obregon-Zamora.pdf> (last accessed on 20 February 2012).

⁴² Acta N. 056 of Costa Rica's Government Council (*Consejo de Gobierno*) on the National Climate Change Strategy of 1 August 2007.

⁴³ Aguilar and Recio, *Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 20.

Phenomenon,⁴⁴ which, coupled with several incidences of weather-related disasters, are reported by policy-makers as reasons behind such shift.⁴⁵ Central American countries, in particular, have identified adaptation as their main concern related to climate change, having encountered considerable economic and human losses in the past years due to the occurrence of natural disasters. In most cases, their efforts focused on developing planning tools and systems to respond to disasters.⁴⁶

This shift towards adaptation is reflected within National Development Plans, climate change strategies and in the development of sectoral plans for adaptation. For example, Colombia mandates in its 2010-2014 National Development Plan "Prosperity for All" the development of a national plan for adaptation based on a vulnerability assessment.⁴⁷ Ecuador's development strategy, the "National Plan for Good Living", emphasizes adaptation and considers, among other issues, a target to reduce the vulnerability of ecosystems by 2013 by 23%.⁴⁸ Being one of the first countries in the region to focus its national strategy on adaptation, Uruguay designed its National Plan of Response to Climate Change as a strategic framework identifying lines for action and measures for addressing climate change.⁴⁹ The Plan identifies areas for adaptation,

⁴⁴ UN Economic Commission for Latin America and the Caribbean - ECLAC, "Efectos del cambio climático en la costa de América Latina y el Caribe: Dinámicas, tendencias y variabilidad climática", 2011, available at: <http://www.cepal.org/cgi-bin/getprod.asp?xml=/publicaciones/xml/2/45542/P45542.xml&xsl=/dmaah/tpl/p9f.xsl&base=/dmaah/tpl/top-bottom.xsl> (last accessed on 17 February 2012).

⁴⁵ Aguilar and Recio, *Estudio Regional sobre la Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 23.

⁴⁶ Costa Rica is the only country that kept its focus on becoming a carbon neutral country, while also increasing the relevance of adaptation. Central American countries are of a relative small size, very vulnerable to natural disasters and highly dependent on the provision of external funds for climate change issues. For example, UN Economic Commission for Latin America and the Caribbean - ECLAC assessed that the tropical depression 12-E that occurred in Central America in 2011, caused in El Salvador losses for more than US\$840 million (equivalent to almost 4% of its GDP). For the reconstruction of the affected areas, ECLAC estimated that more than US\$575 million will be needed up to 2015. Source: ECLAC, "CEPAL evalúa costos de daños ocasionados por lluvias en América Central", 3 November 2011, available at: <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/prensa/noticias/comunicados/4/44944/P44944.xml&> (last accessed on 16 February 2012).

⁴⁷ Colombia's National Development Plan, supra, note 40, at 559-593.

⁴⁸ Ecuador, "National Plan for Development: National Plan for the Good Living 2009-2013: Building a plurinational and intercultural state" (*Plan Nacional para El Buen Vivir: Construyendo un Estado Plurinacional y Intercultural*), available at: http://www.ambiente.gob.ec/sites/default/files/users/mponce/Versión%20Completa_4.pdf (accessed on 15 February 2012).

⁴⁹ Government of Uruguay, "National Plan for Climate Change" (*Plan Nacional de Respuesta al Cambio Climático*), 2010, available at: <http://www.cambioclimatico.gub.uy/index.php/plan-nacional> (last accessed on 15 September 2011).

including risk management, water resources, energy, ecosystems and biodiversity, production and consumption, quality of life and health.⁵⁰

Notwithstanding the shift of emphasis noted at the policy level, mitigation efforts in the region are reported to continue to dominate the policy-making agenda. As we will see in Section 5, most targets adopted by Latin American countries indeed focus on mitigation. This trend is, in our view, related to various factors, including that financial flows from international cooperation have a stronger focus on mitigation activities and that countries in the region are increasingly interested in generating resources from mitigation, creating an enabling environment for sustainable investments and the development and transfer of technologies. In addition, issues relevant for adaptation are usually handled by several ministries dealing with agriculture, disasters, health, housing, and so on, and may be more scattered rather than unified in a single identifiable regulation.

4.3. Sectoral Approaches

Streamlining climate change objectives within different sectors in the public administration, such as infrastructure, transport, health, industry and agriculture, is also a necessary condition for implementing climate change measures. Promoting and requiring the adoption of sectoral climate change plans is a recent trend in a good number of Latin American countries, particularly with respect to the agriculture sector. Countries that are undertaking efforts to develop sectoral climate change strategies for agriculture or agroforestry include Costa Rica, Colombia, Chile, Mexico, Brazil and Uruguay. For example, Chile is working on the development of an adaptation plan for the forestry and agricultural sector,⁵¹ while Brazil has adopted a plan for low-carbon agriculture.⁵²

Forestry, watersheds and coastal management are also relevant sectors for climate change regulation in the region. Some countries, like Colombia, have used the opportunity to update old water laws to incorporate climate change concerns. In its National Policy for the Integral Management of Water Resources, adopted in 2010, Colombia incorporated as a priority the

⁵⁰ Government of Uruguay, "Third National Communication to the UNFCCC", 2010, available at: <http://unfccc.int/resource/docs/natc/urync3.pdf> (last accessed on 15 September 2011).

⁵¹ Chile is developing a Plan for Adaptation to Climate Change for agro forestry led by the Ministry of Environment and the Ministry of Agriculture that promotes a participatory programme to develop an Adaptation Plan for the agro forestry sector in the region of Magallanes and the Antarctic. See: Aguilar and Recio, *Estudio Regional sobre la integración de la Adaptación en los marcos legales y la planificación en América Latina*, supra, note 23.

⁵² Brazil Ministry of Agriculture, "Programa ABC", 2010, available at: <http://www.agricultura.gov.br/desenvolvimento-sustentavel/programa-abc> (last accessed on 17 February 2012).

adoption of measures for reducing and adapting to risks associated with water supply. In particular, this priority foresees the implementation of climate change adaptation and mitigation measures by water users exposed to natural disasters.⁵³ Peru also included provisions to adapt to climate change in its National Strategy for Water Resources.⁵⁴ Moreover, regarding risk management and response to disasters, many countries in the region have developed strategies that indirectly consider climate change consequences and contribute to responses to natural disasters, to minimize economic and human losses.⁵⁵ For example, Peru passed a law in 2011⁵⁶ creating a National System for Disaster Risk Management (SINAGERD), mainstreaming risk management for natural disasters in all public institutions and planning processes. Cuba combined the approach to risk prevention and reduction with coastal zone management through the implementation of a project on scenarios of danger and vulnerability in the Cuban coastline, associated with sea-level rise expected for 2050 and 2100.⁵⁷ This project is increasingly influencing the adoption of regulations to counter consequences of the sea-level rise.

5. MITIGATION AND ADAPTATION TARGETS

The countries in Latin America that have submitted nationally appropriate mitigation actions (known as NAMAs in UNFCCC jargon) or mitigation targets to the UNFCCC include Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.⁵⁸ Most NAMAs submitted to the UNFCCC are linked to climate change regulations and strategies adopted in each of these

⁵³ Government of Colombia, "National Policy for the Integral Management of Water Resources" (*Política Nacional para la Gestión Integral del Recurso Hídrico*), 2010, available at: http://www.minambiente.gov.co/documentos/5774_240610_libro_pol_nal_rec_hidrico.pdf.pdf (last accessed on 16 February 2012), Strategy 4.3, at 102.

⁵⁴ Art. 119 of Peru's National Strategy for Water Resources (*Política y Estrategia Nacional de Recursos Hídricos del Perú*) 2009, available at: http://www.ana.gob.pe/media/290336/politicas_estrategias_rh.pdf (last accessed on 27 February 2012).

⁵⁵ For example, Mexico, Colombia, Cuba, El Salvador, Nicaragua, Honduras and Costa Rica have developed systems of response to natural disasters, including organizing the population as well as institutions for states of emergency. See: Aguilar and Recio, *Estudio Regional sobre la Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 23.

⁵⁶ Law N. 29664 on the National System for Disaster Risk Management, *Diario Oficial "El Peruano"*, 19 February 2011.

⁵⁷ Macroproyecto 11, *Escenarios de peligro y vulnerabilidad de la zona costera cubana, asociados al ascenso del nivel medio del mar para los años 2050 y 2100* (Havana: Instituto de Planificación Física, 2007).

⁵⁸ UNFCCC, Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, Note by the Secretariat, FCCC/AWGLCA/2011/INF.1, 18 March 2011.

countries, although most have presented their NAMAs as succinct, less detailed versions of their domestic policy instruments.

5.1. Economy-wide targets

As mentioned previously, Brazil is the first country in the region to have adopted a national voluntary mitigation target by law, to reduce "projected emissions" in 36.1 to 38.9% by 2020⁵⁹ based on projections established by Decree on the basis of the Second National Communication data.⁶⁰ Mexico submitted to the UNFCCC an aggregate target of a 30% emission reductions from business-as-usual by 2020, a target that is based on the more ambitious aspirational long-term goal set out in its Special Programme on Climate Change (PECC),⁶¹ to reduce emissions by 50% by 2050 compared to 2000 levels.⁶² Chile aims at 20% reduction below business-as-usual emissions by 2020,⁶³ while Costa Rica has stated in its Climate Change Strategy and National Development Plan that it aims to become a carbon neutral country by 2021.⁶⁴

5.2. Sectoral targets

In their NAMA submissions to the UNFCCC, Brazil and Colombia incorporated specific emission reduction targets that derive from their national climate change strategies. Other countries did not state specific sectoral targets, but identified the sectors they would be working on to achieve their overall mitigation objectives. The submissions are useful to identify the most relevant sectors for mitigation in the region.⁶⁵ Interestingly, in some cases, like Mexico, the

⁵⁹ Law N. 12.187 (2009), *supra*, note 12.

⁶⁰ Decree N. 7390 (2010), *supra*, note 13.

⁶¹ Government of Mexico. Programa Especial de Cambio Climático 2008-2012 (PECC), *supra*, note 24.

⁶² *Ibid.*

⁶³ UNFCCC, Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, *supra*, note 62. See also Government of Chile, "National Strategy for Climate Change", (*Estrategia Nacional de Cambio Climático*), 2006, available at: http://www.bcn.cl/carpeta_temas_profundidad/temas_profundidad.2007-04-11.5841476988/Estrategia%20nacional%20_2006.pdf (last accessed on 12 March 2012).

⁶⁴ Ministry of Environment, Energy and Telecommunications (MEET) of Costa Rica, *National Strategy for Climate Change* (San José: MEET, 2009). The Strategy identifies five main areas for action: mitigation; vulnerability and adaptation; metrics; capacity development and technology transfer; and education and public awareness. See also Costa Rica, National Development Plan, *supra*, note 45.

⁶⁵ UNFCCC, "Appendix II - Nationally appropriate mitigation actions of developing country Parties", available at: http://unfccc.int/meetings/cop_15/copenhagen_accord/items/5265.php (last accessed on 24 February 2012).

national strategy contains a large number of specific targets that have not been reflected in NAMAs submitted to the UNFCCC.⁶⁶

For example, in their NAMA submissions to the UNFCCC for the energy sector: Argentina, Peru, Chile, Colombia, Brazil and Costa Rica, include policies to increase the share of renewables in the energy matrix, while Colombia, Brazil, Argentina include a specific focus on biofuels. Brazil, Chile and Argentina also consider energy efficiency.⁶⁷

Regarding forests, Chile, Brazil, Costa Rica and Argentina include a focus on reducing emissions from deforestation or dealing with land use, land-use change and forestry issues, while Brazil has a specific deforestation reduction target and Peru and Colombia have a target to achieve zero net deforestation rates for native forests or specific areas.⁶⁸ Peru, Costa Rica, Argentina also add efforts to reduce emissions from solid wastes, while Costa Rica mentions transport, as well.⁶⁹

Clearly, energy and forests constitute the key share of mitigation efforts in Latin America. Our studies also found that both Ecuador and Mexico have adopted specific targets on adaptation. Ecuador included in its national development plan a target to reduce by 23% the "high level of threat" in the ecosystem vulnerability to climate change index, and by 69% the "medium level of threat" by 2013.⁷⁰

6. ALLOCATION OF COMPETENCES FOR CLIMATE CHANGE IN LATIN AMERICA

While often lacking specific climate change regulations, Latin American countries tend to have relatively complex systems to distribute competencies and jurisdiction on climate-related matters. Most countries in the region, for example, have developed regulations for the implementation of CDM projects, including the creation of specific authorities to deal with the

⁶⁶ Government of Mexico. PECC, *supra*, note 24.

⁶⁷ UNFCCC, Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, *supra*, note 62.

⁶⁸ *Ibid.* See also Supreme Decree N. 014-2011-MINAM on the National Environmental Action Plan 2010-2012, *supra*, note 36.

⁶⁹ UNFCCC, Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, *supra*, note 62.

⁷⁰ Ecuador, "National Plan for Development", *supra*, note 52.

assessment and national approval of CDM projects. These authorities do not necessarily have jurisdiction over other climate change issues. In order to provide a more complete picture of climate law in Latin America, we have also briefly reviewed the regulations determining the distribution of tasks and responsibilities related to climate regulation in the region.

6.1. Federal vs. Centralized Governments

Constitutions in Latin America usually define the allocation of powers over environmental regulation among central and provincial or local governments.⁷¹ The region varies concerning a centralized or decentralized approach to environmental regulation, although the former is more common. Some countries with a centralized approach, like Chile, Cuba, Panama, Paraguay, Uruguay and Bolivia, stipulate that environmental issues are eminently under central government jurisdiction, with variations on how they address the attribution of power to indigenous communities to regulate resources located in their territories. However, structures and degrees of decentralization among centralized countries differ. For example, in some Central American countries like Panama, the environmental national authority has created offices in the provinces or departments in charge of implementing environmental policies. These offices are granted some local or regional competences, such as powers to grant permits over certain resources and the enforcement of environmental law. In some other centralized countries, those functions are allocated to regional or provincial governments, as in the case of Peru, where the regions have competences to develop regulations and policy instruments, in addition to other competences. In an effort to promote decentralization of environmental protection, Colombia, Peru and Ecuador distribute power over environmental regulation and enforcement between the central government and subnational regional entities.⁷²

In the case of federal states, the allocation of competences tends to be decentralized, but the situation is very different among countries. Argentina allocates most regulatory powers to the provinces, and gives the national government solely the power of adopting minimum national principles for environmental protection, a fact that may have influenced the relatively low level

⁷¹ Aguilar and Recio, *Estudio Regional sobre la Integración de la Adaptación en los marcos legales y la planificación en América Latina*, supra, note 23.

⁷² Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 17.

of development of climate law in this country. Brazil, on the other hand, establishes a common jurisdiction by the central government, provinces (states) and municipalities, for environmental issues, a situation that leads to a more complex architecture, with several layers of regulations dealing with the same issues.⁷³

During interviews by the authors throughout the region, the distribution of competencies among federal and state governments was not identified as a key trend affecting the effectiveness of climate change policy, but rather an element of added complexity that must be contemplated when studying each country's legislation.

6.2. Competence and Jurisdiction over Climate-related Issues

The distribution of competences regarding climate change among different ministries often offers a glimpse of the political importance awarded to climate change issues in a given country, and whether there is an engagement of the presidency in climate change policy-making. In particular, the design and implementation of climate change strategies at the country level requires a good level of engagement by sectors other than the environment, including relevant authorities for finance, agriculture, industry, transport, watersheds and coastal management.

The trend in most countries in the region is the allocation of competences related to climate change issues to the ministry of environment and, in most cases, the mentioned ministry led the process of adoption of strategies and other policy instruments on climate change priorities, for instance, in Costa Rica, Cuba and Guatemala,. Many countries additionally created a climate change directorate or unit to coordinate all the related policies within the ministry of environment, which were in many cases adopted by secondary regulations. Usually, competences on other related issues such as agriculture are allocated to other ministries. In the case of water protection, the allocation of competences is much more varied among countries and presents increasing challenges in terms of coordination.

Additionally, given the transectoral nature of climate change, most countries in the region have created different types of transectoral and interinstitutional coordinating entities or bodies for policy making on climate change issues. Creating a new coordinating body has the advantage

⁷³ Brazil's Constitution of 1998 (*Constituição da República Federativa do Brasil*, of 1988 with amendments until 13 July 2010), Art. 123.

that, as a general trend, all the relevant ministries participate in it and that, according to the political level of relevance provided to this entity, their influence can be substantive, particularly if the President is appointed as the head of the body. For example, Brazil's Forum on Climate Change includes more than a hundred representatives of state agencies, the private sector and non-governmental organizations, and is headed by the Brazilian president.⁷⁴ The Dominican Republic created the National Council for Climate Change and CDM, headed by the president and composed by all the ministries, which acquired a relevant role in the definition of climate change policies in the country.⁷⁵

Inter-institutional bodies are also found to be relevant when leading the development of national strategies on climate change. A good example, from our perspective, is presented by Peru, which elaborated its strategy through an *ad hoc* inter-institutional body, the National Commission on Climate Change, which was composed by different technical groups.

However, interviews with decision makers also showed that the creation of new bodies usually entails difficulties in obtaining the necessary budget. While countries tend to give the ministry of environment a coordinating role in these inter-institutional bodies, many of the experts interviewed highlighted the need to provide an active engagement of the entity in charge of national planning in order to incorporate climate change as an integral aspect of a country's development strategy. In the case of Colombia, for example, the institutional strategy on climate change was adopted by the National Council for Economic and Social Policies (CONPES),⁷⁶ headed by the president of Colombia, led by the Secretary of National Development, and with the participation of all ministries.

6.3 Regional Legislation

⁷⁴ Information on Brazil's Forum on Climate Change (*Forum Brasileiro de Mudancas Climaticas*), including on its composition, is available at: <http://www.forumclima.org.br/> (last accessed on 24 February 2012).

⁷⁵ Adopted by Presidential Decree N. 601, of 20 September 2008. The Decree creates and integrates the National Council for Climatic development and CDM (*Consejo Nacional para el Desarrollo Climático y Mecanismo de Desarrollo Limpio*).

⁷⁶ The National Council for Economic and Social Policies (CONPES) was created by Law N.19, D.O, 9 December 1958.

Countries in Latin America also participate in regional and subregional entities such as the Caribbean Community (CARICOM),⁷⁷ the Andean Community (CAN),⁷⁸ MERCOSUR⁷⁹ and the System of Central American Integration (SICA),⁸⁰ which also contribute to the development of policies on climate change related issues. For example, countries that are part to SICA adopted regional strategies on climate change issues, including the Regional Strategy on Agriculture, Environment and Health (*Estrategia Regional Agroambiental y de Salud- ERAS*), based on five strategic axis: soils sustainable management; climate change and climatic variability; biodiversity; agricultural and environmental business; and healthy spaces and living styles. The strategic frameworks for vulnerability and disaster reduction in Central America to face the situation of food and nutritional insecurity associated with drought and climate change, includes a plan of action for agriculture and livestock for climate change. This region was very active in terms of adopting climate change related regional strategies,⁸¹ including: a 1993 Regional Convention on Climate Change, *Convenio Regional sobre Cambios Climáticos*, a 1999 Strategic Framework for Reduction of Vulnerabilities and Disasters Impacts -*Marco Estratégico para la Reducción de las Vulnerabilidades y el Impacto de los Desastres*- and a subregional Strategy on Climate Change.⁸² As a general trend in the region, subregional strategies proliferated in the past years, which can be understand as a sign of willingness of countries to collaborate and enhance coordination in facing climate change related challenges. However, we found that their implementation remains particularly challenging given the shortage in funds, overlaps among several strategies and institutional difficulties.⁸³

6.4 Subnational Climate Change Laws

⁷⁷ CARICOM member States are: Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

⁷⁸ CAN members are: Ecuador, Bolivia, Colombia and Peru.

⁷⁹ MERCOSUR members are: Argentina, Brazil, Uruguay and Paraguay.

⁸⁰ SICA members are: Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Belize.

⁸¹ Among other strategies, they adopted: the Regional Convention on Climate Change (*Convenio Regional sobre Cambios Climáticos*, 1993), and the Strategic Framework for Reduction of Vulnerabilities and Disasters Impacts (*Marco Estratégico para la Reducción de las Vulnerabilidades y el Impacto de los Desastres*, 1999).

⁸² Comisión Centroamericana de Ambiente y Desarrollo (CCAD), SICA, "Estrategia Regional de Cambio Climático, Executive Document", 2010, available at: http://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=info_55238_1_29112010.pdf (last accessed on 27 February 2012).

⁸³ Aguilar and Recio, *Estudio regional sobre la integración de la Adaptación en los marcos legales y la planificación en América Latina*, supra, note 23, at 11-13.

Depending on each country's distribution of the relevant competences, some Latin American countries developed subnational legislation, plans and strategies relating to climate change. The development of subnational legislation is a recent trend that was identified particularly in federal countries such as Brazil, while the development of subnational strategies is also being promoted in some centralized countries that are going through decentralization processes, such as Peru. The advantage of adopting regional or local strategies on climate change is that measures and planning can be adjusted to local conditions and local institutions involved in the process of implementation. In the next subsections we will explore some particular examples of subnational legislation, without pretending to be exhaustive.

6.4.1 State-Level Legislation in Brazil and Peru

As previously mentioned, the Brazilian Constitution allocates shared responsibilities on environmental issues among the central government, provinces/states and municipalities.⁸⁴ States and local governments in Brazil provide a good example of the types of laws and policies that are likely to be increasingly adopted by subnational entities in Latin America to promote emission reductions, protect forests and support alternative energies.⁸⁵ Among the states that adopted extensive regulations, the state of Sao Paulo adopted the first mandatory mitigation target to reduce emissions in 20% by 2020 based on 2005 emissions. The Sao Paulo State regulation addresses both mitigation and adaptation, and stipulates in Article 31 that the state will define real, measurable and verifiable measures to reduce emissions, using among other instruments: emission reduction or stabilization targets, sectoral efficiency targets, and additional mechanisms to trade carbon rights.⁸⁶ In addition, ten out of the 27 states in Brazil have already adopted policies on climate change, with five having draft regulations under consideration.⁸⁷ These regulations have a stronger focus on mitigation, but in some cases also incorporated adaptation measures adjusted to the vulnerabilities of each region.⁸⁸

⁸⁴ Brazil's Constitution of 1998, *supra*, note 77, Art. 123.

⁸⁵ Instituto de Pesquisa Economica Aplicada (IPEA), "Perspectivas sobre as negociações climáticas e seus impactos na política brasileira", in *Comunicado* N.45 (Brasília: IPEA, 2010).

⁸⁶ Sao Paulo State's Law N.13, 798 of 2009 on the state's policy on climate change (PEMC), *Diario Oficial del Estado* (D.O.E.), 10 November 2009, Section I, at 1.

⁸⁷ Viviane Romeiro and Virginia Parente, "Regulação Das Mudancas Climáticas No Brasil e o Papel dos Governos Subnacionais", in Ronaldo Seroa da Motta et al. (eds), *Mudança do clima no Brasil: aspectos econômicos, sociais e regulatórios* (Brasília: IPEA, 2011), 43-56, at 45-46.

⁸⁸ *Ibid.*

Peru is a centralized country but it is increasingly promoting decentralization of certain environmental competences, including the development of strategies on climate change at the subnational level. In addition to the national environmental strategy and a climate change strategy, the Law on Regional Governments⁸⁹ requests regional governments to generate regional strategies on climate change and on biodiversity protection. In order to guide regions, the Ministry of Environment adopted guidelines for the regional strategies on climate change.⁹⁰ At the time of writing, the regions that adopted regional strategies on climate change include: Junín (2007), Amazonas (2008), Ayacucho (2010), Lambayeque (2010), Loreto and Apurímac (2011). Other eleven regions were at different stages in the design and adoption of such strategies.⁹¹ In cases such as in the Junín region, a technical group that included representatives from different sectors at the regional level carried out the elaboration of the strategy.⁹²

6.4.2 City-Level Legislation

Local governments throughout Latin America are in the process of adopting regulations to reduce greenhouse gas emissions, enhance adaptation and resilience and monitor and report on achievements in these subjects. In many cases, such initiatives are reported to result from the participation by Latin American cities in broader initiatives that allow them to adopt climate-friendly policies and obtain financing for such efforts. For example, several local governments, including 38 cities in Mexico and 22 cities in Brazil, are participating in the ICLEI- Local Governments for Sustainability - initiative, and through this network have developed specific regulations and targets related to climate change mitigation and adaptation at the local level.

In a related initiative, the Global Cities Covenant on Climate or Mexico City Pact was signed by many local governments in Latin America, and both the city of Buenos Aires, and Mexico City,

⁸⁹ Organic Law of Regional Governments, Law N. 27867, Diario Oficial (D.O.), 18 November 2002, available at: http://biblioteca.unmsm.edu.pe/redlieds/Recursos/archivos/goblocales/ley_27867_ley_org_gob_reg.pdf (last accessed on 27 February 2012).

⁹⁰ Ministry of Environment of Peru, "Advances in Regional Planning" (*Avances en la Planificación Regional*), available at: <http://cambioclimatico.minam.gob.pe/la-gestion-del-cc/avances-en-la-planificacion-regional/> (last accessed on 16 February 2012).

⁹¹ Ibid.

⁹² Enfrentando el Cambio. Regional Decree N. 002-2007-GRJunín/PR, of 4 December 2007, Regional Strategy on Climate Change. Also available at: <http://www.regionjunin.gob.pe/documents/pdf/DR/DR2.pdf> (last accessed on 27 February 2012).

have already submitted their first reports on mitigation commitments, actions and greenhouse gas performance to a public registry.⁹³

In the case of Brazil, the cities of Rio de Janeiro and Sao Paulo have developed climate change regulations and adopted mitigation targets. The city of Sao Paulo has adopted a 30% emission reduction target by 2010 based on 2005 emissions,⁹⁴ and the city of Rio de Janeiro has a 8 target to reduce emissions by 2012, a 16 % target by 2016 and a 20% target by 2020 based on 2005 emissions.⁹⁵

7. Implementation, Enforcement and Budgetary Allocations

Considering that the scope of this paper does not allow an evaluation of the effectiveness of climate change policy in Latin America, we nevertheless deem it key to incorporate implementation and enforcement in any analysis of legislation in the region. In this respect, we regard the allocation of funds for the implementation of specific climate change or laws as a relevant indicator concerning the enforcement of climate regulation. Thus, we will provide some examples of countries that have allocated such funds and other aspects that lead to a more effective enforcement of climate regulations.

Despite some initial arguments by climate experts in the region that the main benefit of having a climate change law - rather than relying on flexible strategies - is the possibility to ensure a budgetary allocation for climate change purposes, we found that this is not necessarily always the case. For example, in Mexico, the adoption of a national strategy by the Executive is sufficient to allocate funding, and all special programs derived from the national development strategy, including the climate change program, require a budgetary allocation by law.⁹⁶ Some countries, nevertheless, report having trouble finding funding sources for climate change strategies, while others receive multiple sources having to face challenges in harmonizing these sources. As stated in Costa Rica's national report to the UNFCCC in 2009, there is a disconnect

⁹³ Carbons Cities Climate Registry, "Reporting Cities", available at: <http://citiesclimateregistry.org/cities/reporting-cities/> (last accessed on 18 February 2012). See also: Arian et al., *Carbons Cities Climate Registry 2011 Annual Report* (Bonn: Bonn Center for Local Climate Action and Reporting – carbons, 2011).

⁹⁴ Sao Paulo Municipal Law N. 14933 (2009) on the policy of climatic change (PMMC) in the municipality of Sao Paulo, *Secretaria do Governo Municipal*, 5 June 2009.

⁹⁵ Rio de Janeiro Municipal Law N. 5,248 on the municipal policy on climate change and sustainable development, *Diario Oficial (D.O.)* N. 210 28 January 2011, at 3.

⁹⁶ Aguilar and Recio, Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, supra, note 17.

between public spending planning at the national level and the development of strategies and action plans derived from international conventions, leading to a low level of integration of climate change objectives into the national public planning process.⁹⁷ Current initiatives supporting the development of climate change strategies in the region also point towards the need to include the climate change dimension into the public and private budget at the national, subnational and sectoral level.⁹⁸

Expert voices from the region on the matter of enforcement and implementation effectiveness also point towards a combination of factors including budgetary allocations, political will and engagement by presidents with climate change, as well as generating sufficient scientific knowledge to back decision making. The following examples show some combinations that seem to have worked - or failed to succeed – for implementing climate-related legislation.

Argentina presents an example of a weak institutional and legal framework for climate change regulation. We find this country lacks budgetary allocations to climate change and has a low level of political engagement in this matter by the country's leadership. Some indicators of the lack of political leadership engagement are, for example, the absence of Argentina's current president from the 2009 UN Climate Change Conference in Copenhagen - the largest historical gathering of heads of state to discuss climate issues- , the fact that Argentina's interagency coordination mechanism for climate change is led by a secretary of state - not a minister or president-, and that, in terms of normative development, the country is still in the process of adopting a climate change strategy and has no climate change law. This combination of legal and institutional factors, is possibly the reason why the country has no specific allocation for climate change in the national budget. We must mention, however, that Argentina does have an advanced regulation and assigned funding for the promotion of renewable energy sources, although motivated mainly by energy security issues, not by policies related to climate change.⁹⁹

Stronger examples of implementation of climate change law are presented by Brazil and Mexico. In the case of Brazil, having a climate change law leads to the assignation of specific resources for the implementation of climate change regulations in the national budget. There are also

⁹⁷ Ministry of Environment, Energy and Telecommunications (MEET) of Costa Rica, *Costa Rica 2009: Segunda comunicación nacional a la Convención Marco de las Naciones Unidas sobre Cambio Climático* (San Jose: MEET, 2009), at 65-66.

⁹⁸ Martha Perdomo, *Proyecto Políticas Climáticas 2012: Preparando Estrategias Climáticas* (Panama: Programa para el Desarrollo de Naciones Unidas-PNUD, Centro Regional LAC, 2011), at 11.

⁹⁹ Law 26.728, 2011 on Argentina's General Budget for the National Administration (*Presupuesto General De La Administracion Nacional*), *Boletín Oficial*, of 28 December 2011.

budget lines for research and development of technologies for adaptation in agribusiness, as well as to implement the sectoral plan for a low-carbon emissions agriculture.¹⁰⁰ The strength of the framework may also be related to having a climate change forum led by the President and the creation, under Brazil's former presidency of specific funds to deal with climate change, such as the National Climate Change Fund and the Amazonian Fund. Even though the current president of Brazil seems to have lowered the priority of climate change issues within the national policy agenda, and as a result institutions are not showing the level of activity they had during President Lula's era, Brazil still has the largest budgetary allocation for climate issues in South America. As an example, the Brazilian national development bank (BNDES) announced in February 2012 a credit line to support mitigation and adaptation projects, with an estimated budget of US\$ 570 million until 2014, which will be obtained from royalties from the oil industry.¹⁰¹

Another example of a strong climate change framework is presented by Mexico, a country that with a special climate change program 2009-2012 as part of the country's national development plan, even if it has not approved a climate change law,¹⁰² and a strong commitment by the president to climate change mitigation. Mexico's planning laws determine that all special programs deriving from the country's development plan, such as the special climate change program, must have a corresponding budget line, and thus receive specific budgetary allocations for the implementation of the different objectives of the plan.¹⁰³ In addition, the Mexican President Felipe Calderon has shown a personal commitment to climate change as an engaged host during the Cancun Climate Change Conference, and in the incorporation of climate change as a key topic to be addressed during Mexico's 2012 presidency of the Group of 20. The case of Mexico is interesting because, even in the absence of a specific climate law, it has developed one of the most advanced frameworks for dealing with mitigation and adaptation in Latin America, based on policy instruments (a national strategy and sectoral action plans), budgetary allocations and a strong presidential commitment.

¹⁰⁰ Planning Ministry of Brazil, "Orçamento anual de 2012", available at: <http://www.planejamento.gov.br/secretaria.asp?cat=50&sub=539&sec=8> (last accessed on 24 February 2012).

¹⁰¹ O Banco Nacional do Desenvolvimento (BNDES), "MMA e BNDES lançam linha de crédito para projetos que reduzam emissões", 30 February 2012, available at: http://www.bndes.gov.br/SiteBNDES/bndes/bndes_pt/Institucional/Sala_de_Imprensa/Destaques_Primeira_Pagina/20120213_fundo_clima.html (last accessed on 18 February 2012).

¹⁰² Government of Mexico, PECC, *supra*, note 24.

¹⁰³ Aguilar and Recio, *Fichas de país: Integración de la Adaptación en la planificación y los marcos regulatorios nacionales en América Latina*, *supra*, note 17.

Colombia presents another example of increasing efforts to mainstream climate change in national planning and across sectors. As previously mentioned, the National Development Plan included climate change priorities and targets. The Multiyear Plan for Investments defines budget allocations for the strategic areas identified in the National Development Plan. Then, the institutional strategy on climate change adopted by the CONPES set the basis for the development of required strategies on adaptation, low-carbon development and avoided deforestation in the country, as well as for the development of a financial strategy for risks. Furthermore, the Strategy establishes the creation of a Financial Committee to manage funds for climate change projects. The Committee is expected to have a relevant role in assessing possible sources of funding from international cooperation, multilateral agreements or the recently adopted National Adaptation Fund for adaptation and mitigation projects.¹⁰⁴

Finally, Ecuador, despite being a small country in terms of economic size and emissions, also has a well-developed climate change strategy that has been incorporated into the country's national development strategy or *National Plan for Good Living*. As part of the national development strategy, many climate change-related projects and initiatives have been able to access national budget funding through the general secretary of planning, the organ tasked with assigning funds for the implementation of the country's national development plan.¹⁰⁵

8. Conclusions

This Chapter has reviewed the main developments regarding climate change law in Latin America, drawing attention to the many layers of regulation currently in place, the balance between mitigation and adaptation objectives, and the diversity in the ways in which countries regulate climate challenge in this region.

Among the main trends, we found that most countries in Latin America have included climate change priorities in their national development plans and/or specific climate change strategies and are working to implement these through the development of sectoral programs and specific action plans. Such strategies vary in scope and in terms of their adoption process. However, they provide guidelines for policy makers and, depending on the national legal framework, can have a budget allocated to their implementation. They generally lack, however, mechanisms for

¹⁰⁴ Ibid.

¹⁰⁵ Ibid..

enforcement and monitoring. Regarding climate change laws, only Brazil has already adopted comprehensive climate change legislation, and some other countries, like Guatemala, have projects under debate by Congress.

Our research also showed that some countries in the region are undergoing processes to enhance mainstreaming of climate change priorities into relevant sectors of the public arena through, *inter alia*, the creation of inter-institutional bodies, the adoption of sectoral strategies and the incorporation of climate change among national development plan's priorities. We found countries vary in their institutional designs, with most interesting approaches presented by those that implement president-led forums or bodies to allow for interdisciplinary and interagency consideration of the climate change challenge. Work is also underway at the sectoral level, with numerous countries working on agriculture and adaptation plans. Finally, the incorporation of adaptation and mitigation priorities into national development plans is increasingly taking place in the region, inscribed in a process of rebirth of national planning at the mid- and long-term. Some of the countries that included climate change priorities in their national development plans seem to have stronger basis and be making further progress in mainstreaming climate change throughout sectors.

In general, a shift from a focus on mitigation in the past towards adaptation in most recent legal developments was also identified, with many countries signalling adaptation as their main priority owing to the frequent occurrence of disasters that caused human and economic losses. Nevertheless, mitigation, originally concentrated on regulations for the implementation of CDM projects, maintains the largest share of climate related regulations, with many countries adopting economy-wide mitigation targets or aspirational goals.

Finally, the layers formed by strategies and action plans at national level are intersected and overlapped – and often enriched – by subnational legislation, which shows increased levels of activity regarding climate change regulation. At the subnational level, a myriad of initiatives are taking place, with some cities in the region (with populations surpassing that of many other countries as a whole, like Buenos Aires, Sao Paulo and Mexico City) adopting specific targets for climate change mitigation. The colourful picture is complemented at the international level, with many countries participating in subregional organizations that have adopted strategies for subregional cooperation on climate issues.

In terms of implementation, the picture is less intense with most policy makers reporting serious shortages of funds from national budgets for climate-related strategies, although interesting

examples of frameworks that intend to provide adequate funds to climate change are provided by Brazil Mexico and Colombia.

In essence, we find climate change legislation in Latin America, having been developed during the past decade, is still in a programmatic stage, but advancing at a steady pace at both national and sub national levels. While originally mainly focused on mitigation, the emphasis on the prevention of disasters and adaptation is being strengthened. Operative clauses, or binding obligations that could trigger enforcement measures for mitigation or adaptation, however, do not abound.