

CHALLENGES FOR A CLIMATE COMPATIBLE DEVELOPMENT

HOW TO STRENGTHEN AGRICULTURAL, LIVESTOCK AND FORESTRY PUBLIC POLICIES

KEY MESSAGES

1. Agricultural, livestock and forestry activities occupy a privileged place in the productive matrix of Latin American countries; however, their development and sustainability need a greater adaptability to climate change impacts.
2. The threat that climate change produces in these key areas of the economy of Latin America forces the States to develop preventive and effective public policies in order to ensure human security and food safety, to contribute to poverty reduction, and to enhance the competitiveness of the region at an international level.
3. One of the main challenges is promoting an effective integration of climate policies with the different macroeconomic policies on agricultural, livestock, and forestry development, as well as environmental land-use planning policies¹.
4. The complexity of climate change requires a multilevel, multi-jurisdictional and multisectoral participatory approach on both the design phase, and the implementation and evaluation of the policies. Moreover, this multi-participation will contribute to obtain sustained political and social support.
5. Climate policies for the agricultural, livestock and forestry sector should be tackled globally as well as regionally in order to articulate the synergies of the national climate agendas, considering the key role that these sectors have in food supply in Latin America.

EXECUTIVE SUMMARY

The impacts of climate change in Latin America are of an increasing concern; particularly, those impacts that involve the agricultural, livestock and forestry areas, due to their high dependence on climatic conditions. This leads to a situation of economic, social, environmental and political vulnerability, putting at risk food safety, human security and the basic conditions necessary to reduce poverty.

The agricultural, livestock and forestry areas have a great relevance for the countries of our region, because of their contribution to Gross Domestic Product, to the employment generation and to exports (Ryan, 2012), as well as their key role in food production for the whole world, among other things. Thus, the climate impacts affect the contribution of these areas to the national and regional economic growth, reducing in turn the capacity of the State to support sustainable development policies. Moreover, climate impacts may bring inflationary consequences in the food markets, influencing negatively the human security standards in the region and in the world.

The regional, national and sub-national policies aimed to the climate issue have been rarely effective in reverting the present situation and the discouraging projected scenarios. Although improvements have been carried out in policy-making, particularly in those policies regarding the creation and development of a specific institutional framework in the area, there is still a strong deficit in achieving the effective implementation of those policies.

This situation poses different challenges and questions for decision-makers. For example: Which are the necessary conditions for the development of effective climate change policies? How can a State encourage the technical quality and the legitimacy of these policies to maximize the opportunities and avoid potential conflicts? How can progressive damages associated with the lack of coordination between development policies and climate change policies be decreased, enhancing, in turn, the population quality of life and reducing poverty? How can efforts to include climate change policies be capitalized in a development perspective? How can resources be used more efficiently to face the budgetary demands to which the States are subjected to? Finally, how should circumstantial urgencies be faced without leaving behind the important issues for the medium and long term?

In that scenario, the reinforcement of the State's capacity to face these challenges becomes crucial. The present document seeks to provide key arguments and guidelines for decision-makers to develop urgent and effective policies for climate compatible development². Accordingly, it is necessary to adopt consensual climate policies resulting from broad and multisectoral processes of dialogue covering the whole life-cycle of policies in order to achieve a sustained political and social support. In this context, it is relevant to harmonize the objectives with those of other development policies; to prefer the preventive to the reactive approach; to allocate enough budget resources; and to enhance the relevance of the multilevel multi-actor work; in short, to promote the legitimacy, sustainability and real impact of the policies.

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Team of Fundación Cambio Democrático (Democratic Change Foundation) framed within the Regional Study: "The State and the Quality of Public Policies on Climate Change and Development in Latin America. Agricultural, Livestock and Forestry Sectors", prepared by the Latin American Climate Platform³.

Box 1. Methodological note

This document of policy recommendations is based on the report "The State and the Quality of Public Policies in Latin America. Agricultural, Livestock and Forestry Areas" by Daniel Ryan (2012) within the framework of a study promoted by the Latin American Climate Platform in the region. This report is, in turn, based on national documents from ten Latin American countries, such as: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, El Salvador, Paraguay, Peru and Uruguay. Furthermore, it takes into consideration contributions and recommendations based on the experiences learned in each of the countries, recorded and discussed in the Regional Forum: "Public Policies on Climate Change and Development: From the discourse to the change"; organized by the Latin American Climate Platform and Climate and Development Knowledge Network (CDKN) with the support of Fundación Futuro Latinoamericano and Fundación Cambio Democrático (Democratic Change Foundation): which was held on October 1 and 2, 2012 in Lima, Peru.

CLIMATE CHANGE AND PUBLIC POLICIES

ANALYSIS AT LOCAL LEVEL AND REGIONAL PATTERNS

The vulnerability analyses regarding climate change in the region indicates, among other things, that i) the periods of droughts and floods are exacerbating; ii) disaster phenomena are and will be not only be more extreme but also more recurring; iii) the loss of glacier surface is reducing the availability of water for human, agricultural and livestock consumption and for the generation of energy; iv) soils are in a sustained process of erosion and degradation in parallel with an alteration of the process of primary production; and v) it will impact on different environmental services, among other impacts⁴.

Moreover, the available information indicates that Latin American and Caribbean countries are particularly vulnerable to climate change impacts, especially the agricultural, livestock and forestry sectors. For example, the case of Uruguay, where the 2009 drought caused a loss equivalent to 1.5% of the Gross Domestic Product; or the case of Colombia, where in 2012 La Niña phenomenon caused extraordinary levels of rainfall and floods that affected more than 2.27 millions of people in 775 different districts of the country (National Planning Department of Colombia, 2010 in Sarmiento, Ramos and Arenas Wightman, 2012), resulting in substantial material damage. The case of Paraguay is also paradigmatic: the climate performance in the last years, mainly the extended droughts, has put rural producers into a situation of severe food insecurity forcing the Executive Power to declare food emergency for the indigenous familiar agriculture in 2012⁵. Other case is Ecuador, where the droughts (2002-2007) caused the loss of 45% of transitory crops and 11% of permanent crops (Ministry of the Environment of Ecuador, 2011 in Albán and Prócel, 2012). The list can be extended to all Latin America showing that specific measures should be taken urgently in order to maintain the benefits that these areas provide to society as a whole.

Box 2. El Salvador, the most vulnerable country of Latin America

Several studies have characterized El Salvador as one of the most vulnerable countries in the world to climate change impacts⁶. Between 2002 and 2011, El Salvador was affected by seven cyclones and two low-pressure systems, three of them occurred between 2009 and 2011, causing losses of approximately 1300 millions of dollars (equivalent to 6% of its Gross Domestic Product). As a point of reference, during the 60s and 70s, only one tropical cyclone per decade was recorded. This series of events, and its increase in the last years, generated greater attention, and positioned this issue in the national political agenda, motivating the design of several policies aimed to incorporate and reinforce risk management, adaptation to the phenomenon, and reduction of the vulnerability. El Salvador is a clear example of how the climate agenda, eminently reactive to the effects of high-impact extreme events, is introduced in the country.

Two thirds of the greenhouse gas emissions in Latin American are produced by changes in land uses, and forestry and pastoral activities. Any strategy in this direction requires specific policies in the agricultural, livestock and forestry sectors. Gradually, the countries of the region are increasing their commitment to reduce gas emissions as it is evidenced in national communications and climate policies both at local and national level. Particularly in the last decade, it has been possible to observe the development of a specific institutional framework in relation to climate change. Only some countries still lack the necessary tools and policies to face this issue. In those countries which have progressed on the issue, it is possible to observe some common patterns and characteristics (Ryan, 2012).

From the moment of **design**, some limitations are observed. Mainly, **there is a strong weakness in the integration and articulation of climate policies with other sectoral or macroeconomic policies**. The lack of articulation is not only perceived in the absence of operational coordination but also in the contradiction between the purposes and the objectives of each of the policies. This situation threatens the fulfillment of both policies, often sending confusing signals to the society and to the market, and wasting, therefore, opportunities and synergies. Particularly, the lack of articulation between forestry protection policies and those of promotion of the agricultural and livestock activity generates deficiencies in the design and implementation of the policies. This situation is repeated in various countries of the region. The lack of coordination needs to be tackled by environmental land use planning schemes which is a key integrating tool in order to achieve the objectives of the proposed climate policy.

Box 3. Argentina and the challenge of integrating the climate agenda into the sectoral policies.

The *Plan Estratégico Agroalimentario y Agroindustrial Participativo y Federal de Argentina*, PEA (Participatory and Federal Strategic Plan on Agri-Food and Agro-Industry of Argentina) is a good example of a policy of sectoral development planning with an unsatisfactory approach and integration of climate objectives. Launched in 2010 to set the main guidelines of the Argentine Agri-food sector for the next decade, the PEA did not include any goal related to emissions of productive chains. Although the Plan considers some environmental objectives (such as the increase of the natural protected areas, and some goals in terms of recovering one ton of carbon per hectare), they are not articulated or integrated with the productive aims which are, distinctly, the guide and motor of this Plan. For example, it does not foresee an increase in greenhouse gas emissions as a result of the expansion of the agriculture and especially livestock sector (a critical area of the greenhouse gas emission matrix in Argentina); nor it incorporates any kind of analysis or assessment on the emissions resulting from the expansion of production, and on the mitigation actions aimed at capturing greenhouse gases.

Another aspect, related to the design but also closely associated with the social support these policies may obtain, refers to the instances of social participation as a mechanism for the process of policy-making and monitoring of programs or plans. Although taken into account in most policies, they are not suitable for a comprehensive approach, evidencing the need to open spaces of participation which take into account the key actors in these areas and in all the countries of the region. A multisectoral, multilevel and multidisciplinary approach which ensures the basic principles of full participation, shared responsibilities and inclusive solutions should be adopted.

With respect to **policy implementation**, the weakness or delays in the implementation of the policies is a common feature that, to a greater or lesser extent, affects all the countries under study, although there is not a univocal factor which explains the phenomenon in the whole region. In fact, each country has developed different configurations of factors and conditions. **The most recurrent factor is the lack of enough budget resources or assignments below the minimum required** (For example, the National Action Plan on Climate Change in 2008 in Chile⁷, or the Native Forest Protection Bill in Argentina⁸). Other elements found repeatedly, are the lack of human and logistic resources (For

example, regarding the use and management of forest resources in Bolivia), the shortcomings in the implementation at the sub-national level, associated with the absence of local capacities (For example, Forest Control in Peru), and even structural problems such as those resulting from power tensions and conflicting interests among several actors involved.

Box 4. Chile. The lack of resources as a deficit factor in the implementation of the policy

Chile adopted its National Strategy on Climate Change in 2006, generating two years later the National Action Plan on Climate Change 2008-2012 (PANCC). During the mid-term evaluation carried out in 2011, the report showed a poor implementation, considering that none of the final objectives such as Multisectoral National Plans of Adaptation and Mitigation would be reached once the official period of implementation finished in December 2012. Among other factors, it was determined that this deficiency in the implementation was a consequence of bureaucratic coordination problems between the stages of design and approval of the plan and the budgetary times, concluding in an unbalanced resource assignment in order to fulfill the goals previously determined.

However, if we analyzed the climate change policies from the perspective of their **political and social support**, they occupy a clearly marginal place in the political agenda and in public opinion in almost every country of the region. Except for the case of Brazil, in the rest of the countries the **increase in the public relevance of the "climate change issue" could be defined as reactive, in most cases as a product of extreme climate events with high economic and social impact:** droughts in Uruguay, tropical storms in El Salvador and cold waves in Colombia (see Text Box 5), among other events. Although there are not strong programmatic commitments in relation to the climate issue, different levels of support based on a particular political conjuncture or specific interests of elites, parties or alliances in power can be found.

Moreover, in the analyzed cases, an active resistance is noticed; particularly in relation to the mitigation policies, unlike the adaptation policies which have a less strong resistance. With respect to the former, the benefits are distributed to the society as a whole, and the costs are imposed to specific sectors. Instead, the adaptation policies tend to have focused benefits while the costs are distributed to the rest of the society. Thus, the adaptation policies are often used to generate levels of social and political consensus in order to move forward with more ambitious climate agendas.

The "lack of political will", repeatedly mentioned in the different national studies, poses the necessity of interacting and involving the actors of the political system in a more effective way, and also highlights the necessity of constructing political and social coalitions which drive and maintain development agendas in relation to the climate dimension.

Finally, we face the challenge of reinforcing the **institutional strength** in areas where the climate agenda is not a priority. It is observed that many initiatives do not address guidelines defined by the State agencies but rather, they are the result of the will and interest of government officials or experts involved in the issue.

Box 5. Colombia. Extreme events as catalysts of climate policies

In most countries of the region, it was necessary to undergo environmental catastrophes leading to huge material losses in order to make qualitative progresses towards a more comprehensive climate strategy with a more prominence of the issue in the decision-makers agenda. Colombia is an accurate reflection of this situation. During the first half of the 2000s, the incipient climate agenda of the country was focused on the reduction of greenhouse gas emissions with the object of taking advantage of economic opportunities from the development of mitigation projects. But with the cold wave of 2010 caused by La Niña phenomenon, a strong change in the climate agenda was held placing the emphasis on the adaptation component. Due to that phenomenon, more than 2.7 millions of people were affected, about 807,609 hectares of land were flooded and more than \$26 billions of pesos were spent.

All the same, the development of these bureaucratic structures within the State with committed teams and technical capacities to make and implement projects and to access to international resources has been really important to maintain the climate agenda over time and beyond successive governments (See Text Box 6). Furthermore, there are countries that seek to place the responsibility for the climate issues in more central institutional scenarios within the State structure with the involvement of planning agencies, Economy Ministries or directly, of Heads of Government. This is the case, for example, of the new climate change national system in Colombia under the coordination of the National Planning Department.

Box 6. Uruguay. The institutional strength and the individual will

In contexts where the climate agenda is not a priority, it has survived over time by certain bureaucratic structures within the State. Uruguay and its Climate Change Unit (UCC) are a reliable proof of this fact, in which the institutional framework is prioritized over certain government interests. In spite its low budgetary assignments by the National State since the creation of this agency (1994), it has managed to continue operative by its activities, efficacy and technical capacity. Thus, the UCC is the evidence that activities of great temporal projection and sustainable impact can be generated and implemented having a consolidated institutional development, a professional and effective team, and clear guidelines; especially in this issue where unsustainable actions prevailed as a product of individual will and networking capacity of specific people or groups.

POLICY RECOMMENDATIONS

With reference to the main public policy constraints on climate change identified in the region, in particular those policies related to the agricultural, livestock and forestry areas, a series of recommendations to decision-makers are set forth below. They are aimed to improve the quality, effectiveness and achievement of the goals proposed. These recommendations are grouped according to the following dimensions: *Design Quality, Implementation, Institutional Strength, Leadership and Political Support, and Social Communication*.

Design Quality:

- Spaces of multisectoral, multidisciplinary and multilevel participation in all the stages of policy life-cycle are substantial to adjust policies to the capacities and interests of the different actors and, therefore, ensure a greater legitimacy, effectiveness and sustainability of them.
- It is crucial to integrate and articulate climate policies with other national sectoral or macroeconomic policies in order to maximize the synergy and potentiate its real impact. In particular, it is necessary to reduce the contradictions between forest protection policies and those related to the promotion of the agricultural and livestock activity. This articulation should be carried out by a coordinating entity.
- Legitimate and relevant information enabling a broader approach in order to reduce biases that come from the different sectoral perspectives should be available.
- The decentralization of the climate policy design and implementation processes contributes to a greater flexibility for an effective application in the local contexts.
- The budget resources to be assigned to the institution in charge of implementing the policy should be clearly established.
- The environmental land-use planning is recognized as a fundamental strategic tool to achieve the climate objectives proposed when planning the present and future uses of the land, with a perspective sensitive to climate and its dynamics.
- Better results may be obtained when climate policies are anchored in rules of a higher level in the national legal system, and even more if procedural mechanisms associated (such as climate justice) are considered.
- The adoption of incentives and disincentives to force the private sector to contribute to the policy objectives should be taken into account.

Implementation:

- Local and sub-national capacities for the implementation of the policies should be reinforced, since this is repeatedly the reason of the policy failure.
- A good level of coordination among the several jurisdictions is required. In this regard, it is recommended to define an inter-institutional and inter-jurisdictional agency or unit in charge of the implementation which ensures the articulation and the continuity of the policies.
- Continuous monitoring and evaluation systems should be encouraged to be developed by the State as well as by the different actors involved. These systems would provide data about the advances and limitations of each stage of the policy implementation.
- Legal mechanisms of accountability applicable to climate policy management should be adopted.
- The effective implementation of the existing climate policies should be promoted and monitored.

Institutional Strength:

- The climate change management should be integrated into the different public agencies and ministries, in order to improve the articulation of efforts, and to maximize the impact capacity of those policies.
- The public entity responsible for the coordination of climate management should occupy a higher institutional position in budget and planning.
- The State bureaucratic structures in charge of preparing and implementing the policies and programs should be reinforced, optimizing the technical capacities of their members and the access to resources.
- It is necessary to strengthen the preventive approach of climate policies, mainly facing disaster phenomena.
- The rules and regulations related to environmental land-use planning which gives as one of its results the reduction of deforestation should be strengthened.

Political and Social Support:

- Mechanisms which ensure a full and effective participation of the several actors involved in all the stages of the public policy life-cycle should be generated in order to achieve a sustained political and social support which may continue beyond different government administrations.
- A coalition of different actors (political parties, private sector, academia, civil society organizations, among others) which give support to the policies and agree programmatic pacts in order to generate policy guidelines. This would put climate change in a more prominent place in the public agenda.

Social Communication ⁹:

- A greater awareness and social education about the seriousness of the climate change and its risks for the human security should be fostered. Citizens should become active promoters of the change, learning to adapt to new conditions.
- It is relevant the implementation of strategies such as information campaigns, the inclusion of the subject in school curricula, mass media, social networks, among others; prioritizing examples and stories related to the audience's contexts, easy to understand and adapted to each reality and sector.
- Communication and awareness should highlight the need to adopt preventive policies of early warning and adaptation to impacts; rather than those focused on ex post facto reaction.

This list of recommendations is not exhaustive. Regional limitations for the development of public policies in relation to climate change pose a challenge for every social actor. Through this complex and sustained work, a strategic and effective pathway towards a true climate compatible development would come up, reducing the existing vulnerabilities and favoring the decrease of poverty.

SOURCES, BIBLIOGRAPHIC REFERENCES AND END-NOTES

- Albán, María Amparo and Andrea Prócel. 2012. "Informe Sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en Ecuador. Sector Agropecuario y Forestal." Centro Ecuatoriano de Derecho Ambiental (CEDA). Ecuador.
- Cardoso, Denilson, Rachel Bidermann, Luciana Betiol and Laura Valente. 2012. "Informe sobre o Estado e Qualidade das Políticas Públicas sobre Mudanças Climáticas e Desenvolvimento no Brasil. Um panorama geral, com destaque ao Setor de Agricultura, Florestas e outros usos do solo.": Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental (SPVS). Brasil.
- Cuéllar, Nelson, Fausto Luna, Oscar Diaz and Susan Kandel. 2012. "Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en El Salvador." Programa Salvadoreño de Investigación sobre Desarrollo Medio Ambiente (PRISMA). El Salvador.
- Di Paola, María Marta; Inés Rivero and María Eugenia Di Paola (eds.). 2012. "Informe Nacional sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en Argentina. Sector agropecuario y forestal." FARN. Argentina.
- Fundación Ambiente y Recursos Naturales y Fundación Cambio Democrático. 2011. "El Ordenamiento Ambiental del Territorio como herramienta para la prevención y transformación democrática de conflictos socio-ambientales, Lineamientos básicos y recomendaciones para el desarrollo de una política nacional. Volumen 2". Argentina.
- Fundación Cambio Democrático. 2012. Informe de Sistematización del "Foro regional Políticas Públicas sobre Cambio Climático y Desarrollo: Del discurso al cambio" organizado por la Plataforma Climática Latinoamericana y la Alianza Clima y Desarrollo, con el apoyo de la Fundación Futuro Latinoamericano en Lima, Peru. Argentina.
- Lattanzio, Sergio R., and Laura Marrero. 2012. "Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo de Uruguay. Sector Agropecuario y Forestal." CEUTA. Uruguay.
- Mitchell, Tom and Simon Maxwell. 2010. "Defining Climate Compatible Development". Climate & Development Knowledge Network.
- Ryan, Daniel. 2012. "Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en América Latina. Sector Agropecuario y Forestal." Latin American Climate Platform.
- Sarmiento, Mariana, Pablo Ramos and Wendy Arenas Wightman (coords). 2012. "Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en Colombia: Sector agropecuario y forestal." Gaia Amazonas y ALISOS –Alianzas para la Sostenibilidad-. Colombia.
- Seeger, Maia, Juan Carlos Urquidí and Marta Lillo. 2012. "Informe Nacional de Estado de Situación y Calidad de las Políticas Públicas en Cambio Climático y Desarrollo en Chile. Sector Agropecuario y Forestal." SustentaRSE. Chile.
- Vargas Ríos, María Teresa, Noelia Garzón Rivero, Javier González Iwanciw and Edil Osinaga Rico. 2012, "Informe Sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en Bolivia. Sector Agropecuario y Forestal." Fundación Natura Bolivia. Bolivia.
- Vidal Soler, Víctor. 2012. "Informe Sobre El Estado y Calidad De Las Políticas Públicas Sobre Cambio Climático y Desarrollo En Paraguay – Sector Agropecuario y Forestal.": Fundación Moisés Bertoni. Paraguay.

¹ "Environmental land-use planning is an environmental policy tool intended for the spatial organization of the activities within a certain territorial area, through a process of rational and participative planning, and in function of the features of uses, and ecosystems. Fundación Ambiente y Recursos Naturales y Fundación Cambio Democrático (Environment and Natural Resources Foundation and Democratic Change Foundation), 2011. "El Ordenamiento Ambiental del Territorio como herramienta para la prevención y transformación democrática de conflictos socio-ambientales, Volumen 2". Argentina. Available in: http://issuu.com/fundacioncambiodemocratico/docs/publicaci_n_ned/1

² "Climate Compatible Development is a development that minimizes the damage caused by the climate impacts, maximizing the many opportunities of human development that present a future with a low level of emissions, being more resilient". Mitchell, Tom and Maxwell, Simon. 2010. "Defining Climate Compatible Development". Climate & Development Knowledge Network.

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⁴ The analysis derives from the national reports mentioned in the bibliography.

⁵ See Decrees of the Executive Power of Paraguay 8.282 and 8.896, 2012.

⁶ Among others: World Bank, 2005; Report of the World Bank Independent Evaluation Group, 2006; Global Climate Risk Index, Germanwatch, 2010; Annual Statistical Report on Disasters from the Centre for Research on the Epidemiology of Disasters, World Health Organization, 2010; Global Fund for Disaster Reduction and Recovery, 2010.

⁷ Comisión Nacional del Medio Ambiente (National Environment Commission). 2008. Plan de Acción Nacional de Cambio Climático (National Action Plan on Climate Change) (2008-2012). Santiago, Chile.

⁸ Law 26331 Presupuestos Mínimos de Protección de los Bosques Nativos (Minimum Environmental Requirements for Native Forest Protection). 2007. Regulated by Decree 91/2009. Argentina.

⁹ Although the national and regional reports do not consider the social communication dimension, it emerged as such within the space of dialogue and the group reflection held in the Regional Forum "Climate Change and Development Public Policies: From the discourse to the change". For this reason, it has been included in these recommendations.



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