Mainstreaming Climate Change in Colombia

Screening for risks and opportunity





Project: 'Integrating climate change risks and opportunities
into national development processes and United Nations country programming'

Climate change is one of the greatest challenges that Humanity must face in this century. It threatens the attainment of the Millennium Development Goals (MDGs) and may reverse the progress made to date in human development, especially in developing countries and in the poorest and most vulnerable communities. Hence, and because climate change impacts are diverse and complex, these must be fully addressed within development planning processes.

Climate Change in Colombia

Colombia is a country that is especially vulnerable to climate change given that its population has settled in areas prone to flooding and in unstable lands of the high sierras. In addition, the country presents a high recurrence and magnitude of disasters associated to climate conditions.

Its vulnerability

Colombia is at high risk from climate change impacts. The majority of the population lives in the elevated Andes, where water shortages and land instability are already a reality, and on the coast, where the increase in sea level and floods can affect key human settlements and economic activities. Furthermore, the country has a high incidence of extreme events with growing emergencies associated with climate conditions.

Colombia has made strides in the attainment of the MDGs. However, these goals are still fragile and marked by a scenario burdened with social conflicts teeming with regional inequalities and social gaps, including a high percentage of vulnerable populations that may suffer serious setbacks in their human development due precisely to climate change.

Integración del cambio climático

PNUD Colombia

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Climate change is an important challenge that can seriously affect the development trajectory in Colombia, the fight against poverty and the attainment of the MDGs. It also has the potential to unleash new socio-environmental conflicts or even deepen existing ones.

Expected impacts

The climate scenarios presented in Colombia's Second National Communication on Climate Change, predict an increase in the average temperature between 2° and 4° C by 2070, along with changed hydrological conditions (for example, certain regions may see their rainfall reduced by up to 30%).

Furthermore, the impacts of climate change will affect the quality of life of all Colombians, but will especially affect the means of living of the rural population. In addition, climate change may accelerate internal displacements and migrations. This in turn is likely to create additional stresses on the fight against poverty in the country, which is likely to increase the vulnerability of marginal and excluded populations.

Examples of expected climate change impacts in Colombia

Health	Increase in the impact of vector-transmitted diseases (malaria and dengue fever). Andean regions are more prone to see the emergence of these new epidemics since they face unstable malaria infections, in addition to being areas with deteriorated water resources and housing conditions.
Agricultural and Livestock Sector	A good portion of the agro-ecosystems of the country is vulnerable to increased aridity, soil erosion, desertification, and changes in the hydrological system. In addition, there is a greater risk of crop flooding as well as other natural events that affect agricultural production (windstorms, hailstorms, etc.).
Water resources	Runoff levels will rise in coastal regions, in eastern flatlands, and in Departments that had prevalent floods and landslides in the last decade. In contrast, the Andean region and the North of the country will see a decrease of runoff levels, which may cause water distribution problems and a deficit of water in associated dams, which in turn would decrease hydro-energy generation.
Coastal systems	With the expected rise in sea level, millions of inhabitants are at risk of exposure to flooding in coastal zones, not to mention industrial settlements, tourism-related infrastructure and facilities, and crops. Water sources would also be vulnerable to seawater intrusion.
Ecosystems	Of concern is the reduction of snow-capped areas and moorlands, and therefore their associated environmental services. An increase in the median temperature of the sea may affect corals, which would also influence biodiversity and fishing resources. There could be a considerable impact to forests, although there is still uncertainty with respect to their resilience.
Housing and settlements	The infrastructure of the country, along with its precarious settlements, may be affected by more frequent extreme events (especially floods, strong rainfall, tropical storms, windstorms, and landslides), which would further deteriorate the living conditions and quality of life of displaced and poor populations.

While the means of living and food production will become more challenging for small producers in rural areas, health conditions and quality of life will decrease in urban contexts.

Integrating climate change considerations in development

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Climate change forces us to conceive of development differently since deep and systemic changes will need to take place if we want to reduce its risks and foster more sustainable lifestyles and consumption patterns. These changes are: 1) a de-carbonization of the economy or the promotion of a low-carbon development (**mitigation**); and 2) a more resilient development tied to a capacity to adapt to the risks and opportunities of climate change, which imply a more harmonious relationship between human activities and the territories (**adaptation**).

One way to address adaptation is to 'mainstream', or integrate, its considerations into planning and decision-making processes. This involves taking into account the risks and opportunities, and putting in place adaptation measures that have a long-term vision of development. The integration of climate change considerations contributes to:

1. Decreasing the vulnerability of the land due to negative impacts of climate change;
2. Increasing the capacity of communities to withstand extreme events (by increasing their resistance and resilience) and to recover in their aftermath;
3. Increasing the capacity of communities and productive sectors to adapt to climate change;
4. Avoiding maladaptation decision-making processes (i.e. activities that in the long run increase vulnerability to climate change);
5. Reducing greenhouse gas (GHG) emissions;
6. More effective, safer and more sustainable development projects.

Progress in Colombia

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Colombia has been developing important capacities to face the challenges of climate change both within the framework of its National Communications and in the support for actions that foster adaptation and mitigation to climate change. The country is implementing concrete adaptation measures in priority regions, such as the islands of the Caribbean and the Colombian Mountain Range, and in essential sectors such as agriculture and water resource management.

There are initiatives geared toward expanding the discussion to academic circles and generating processes of dissemination, education, and awareness-raising. Certain regions and local communities have also begun their own processes of climate change adaptation, such as the Coffee Belt and the Capital Region. Colombia is in the process of defining a national climate change policy that will include the issue of adaptation.

There is a clear complementarity and synergy between the fight against poverty and the attainment of the MDGs, and the reduction in the vulnerability of people and the promotion of adaptation to climate change.

In a similar manner, within the United Nations (UN) System in Colombia, **the Inter-agency Group on Climate Change (IGCC)**[1] was formed in 2009 to contribute to the coordination of these efforts, where 12 of the 22 agencies present in Colombia are involved.

Based on these efforts, Colombia is at an appropriate juncture to apply a programmatic focus that would include climate change considerations in sectoral policies and thus align any climate change adaptation activity with the country's development trajectory and agenda.

Experience of the Climate Change Mainstreaming Project

Current UN development assistance frameworks have yet to incorporate climate change risks. Nonetheless, their impact could considerably affect the attainment of the MDGs and the sustainability of present and future UN development actions. In addition, there are wasted opportunities in certain programmes and projects, which could contribute to the adaptation of the country to climate change.

In this sense, UNDP has turned climate change into an institutional priority at the global level. With funds from the Spanish Government, UNDP is implementing the project **Integrating Climate Change Risk and Opportunity into National Development Processes and UN Country Programming** in five countries (Cape Verde, Malawi, Nicaragua, El Salvador, Colombia).

The purpose of the project is to develop capacities of UN staff and Government stakeholders to integrate risks and opportunities of climate change in national programming and development policies.

The project in Colombia

Colombia implemented the **Climate Change Mainstreaming Project** between January 2009 and January 2010 with a total budget of USD 100,000 and a work team comprised of four individuals[2].

In its initial stage (from January through March 2009), the Project produced a climate profile, including the main vulnerabilities of the country to climate change, along with a mapping of stakeholders related to the discussion of this topic in Colombia. Documents were also selected to assess climate risks, followed by a presentation of the Project to the UN Agencies and pertinent national entities on the topic to obtain their support and participation in this initiative.

During the next stage (from April to July 2009), the Project team evaluated the risks and opportunities of climate change in 13 national policy documents, development plans, UN plans and projects. The UN Development Assistance Framework (UNDAF) was analysed in detail while the remaining ones were supplementary.

During a third stage, with the goal of presenting and providing feedback for these results, and for building the capacity in the country, the Project organised a series of public activities held in July, August and

1 The GICC began its activities in August 2009, after a proposal made during a project workshop. It is coordinated by the UNDP and the FAO and is comprised by: the UNDP, the FAO, UNODC, UNCRD, UN-Habitat, IOM, the WHO/PAHO, UNICEF, CINU, UNFPA, OCHA, the World Bank, and is supported by the OCR.

2 A UNDP project coordinator in New York; a Project focal point and UNDP programme Officer in Colombia; a national advisor in Colombia and; an external international advisor.

Thematic Area	Documents evaluated
1. Fight against poverty	• "Local Millennium Development Goals" Project from UNDP. • Conpes 91 "Goal and strategies for the achievement of the MGDs Colombia - 2015" • Conpes 102 "Social protection network against extreme poverty"
2. Food security and rural development	• "Capacity-building of food and nutritional security in Colombia", FAO project • "Territorial strategy for development and peace - Art Redes", UNDP project • "Capacity-building for alternative development projects within the framework of regional sustainable programmes in Colombia", UNODC project • Conpes 113 "National policy on food and nutritional security (PSAN)"
3. Environmental health, healthy settlements and environs	• "Capacity-building of territorial development and strategy of healthy environments" WHO/PAHO project • Conpes 3550 "Guidelines for the formulation of a comprehensive environmental health policy with emphasis on the components of air quality, water quality, and chemical safety"
4. Risk management	• Development plan for the Department of Cauca • Development plan for the city of Bogota, Capital District
5. General Framework of the UN	• Common country assessment (CCA). Operational system of the United Nations in Colombia, 2006 • UN Development Assistance Framework (UNDAF) Colombia 2008 – 2012

November. Two training sessions and two feedback workshops were organised to present the results of the climate risk evaluation. This included a National Dialogue, which contributed to reinforcing the importance of mainstreaming climate change in the development strategies of Colombia, and generated concrete recommendations on how to further the process.

In its fourth stage (from September 2009 to January 2010), the Project finalized and published the Evaluation of Climate Risks and Opportunities in the Colombian UNDAF (2008-2012). It also set up and followed up with the technical secretariat of the IGCC, drafted a climate change checklist for UN Agencies to quickly screen their programmes and projects, and disseminated project products.

Risks sreening methodology

UNDP drafted a methodology to evaluate climate change risks and opportunities, entitled **Quality Standards for the Integration of Adaptation to Climate Change into Development Programming**, following an analysis of the best practices in the field. This methodology is being piloted as part of this Project, with the intention to improve it.

The methodology provides technical experts a way to screen for climate change implications, which may impact the expected results or deliverables of an existing project, policy, or strategy, as well as in the process of defining them. The four 'Standards' are:

1. Identification of climate change risks
2. Identification of the probability that these risks could result in maladaptation
3. Identification of opportunities for adaptation and synergies with the development process
4. Identification and assessment of potential measures for adaptation, and proposals for changes in planning

The project of this screening is a document that summarises the risks and opportunities associated with climate change and which can then be used to reformulate or adjust the project, policy or strategy screened. The UNDP draft methodology is a useful tool to take into account climate change, thereby decreasing vulnerability to risks, as well as taking advantage of opportunities.

Results of the evaluations in Colombia

An examination of the UNDAF, along with other documents, provides insight into important risks that the country's development may face from climate change and other processes of maladaptation. Such risks result from development trajectories and land use practices that increase the vulnerability of certain populations and sectors to climate change.

In this sense, the evaluation performed by the Project recommends the following potential adaptation measures:

1) **Preserve and strengthen existing buffers** by conserving critical eco-systemic functions and environmental services, for example, maintaining reservoirs and regulating water areas and sources; guaranteeing the existence and connectivity of strategic ecosystems; fostering the development of insurance and financial or non-financial reserves or incentives; developing appropriate technologies; and developing seeds and foods adapted to and resistant to climate change.

2) **Direct attention toward the adaptive capacity and resilience in the organization of the State** to harness its capacity for facing adverse situations as well as the uncertainty resulting from processes of global climate change. This can be fostered through strengthening social protection networks; decentralizing public administration; developing a culture of prevention as part of the cycle of risk management; creating an effective dialogue that values knowledge, both locally and scientifically.

3) **Achieve greater balance between the processes of urbanization and improvement of the rural living conditions** in order to avoid, for example, concentration of inhabitants in large cities. This can be achieved by guaranteeing the conditions of lasting peace, as well as by providing rural populations with access to all social services in an alternative and innovative manner; by reinforcing local spheres in their capacities for governance and administration; and by guaranteeing the levels of use of and access to natural resources for local populations.

4) **Reinforce the concept of "safe habitat and territory" in urbanization processes** to reduce the level of human exposure to extreme events, avoid large economic downturns, produce an effective fight against poverty and to attain the MDGs. This would result from the increased focus on climate change adaptation as a way to alleviate poverty, whilst improving the models of urbanization and occupation of territories.

5) **Develop key institutional functions for adaptation to climate change** by considering climate change scenarios in all development planning processes. To do this, capacities for understanding climate scenarios and for managing climate risks can be strengthened. Inter-sectoral coordination can generate synergies, avoid duplication and reduce the conditions of structural vulnerability in the country. In addition, an effective inclusion of climate risk analysis and adaptation actions within the development processes are needed.

Climate change checklist for a quick evaluation of UN Agencies programmes and projects

The negative impacts expected to result from climate change could significantly affect beneficiary groups, their ways of life and infrastructure, and the activities and personnel of UN programmes and projects. This could interfere with achieving the objectives or decrease the reach of development interventions. In this order of ideas, it is important to analyse the implications of climate change for the territory where the programme or project will take place.

The questionnaire below offers the first steps to analyse and integrate climate change into UN programmes and projects. The responses to the questions will indicate whether the project contributes to and/or could be affected by climate change.

1. What is the level of risk that the following extreme events could result from climate changes in the area of the programme or project? (Please score each event)	High	Medium	Low	None
Floods (due to increasing flow levels, intense rainfall or rising sea level)				
Drought				
Landslides				
Windstorms (gusting winds, intense rainfall and/or tropical storms)				
Forest fires (occurring naturally due to climate conditions of extreme heat or deficient water levels)				

2. What is the level of risk that extreme climate events in the project area (scored above), may have negative socioeconomic effects on beneficiary groups?
Example 1: Floods in the project area may affect water quality and increase the risk of infectious diseases.

High ☐ Medium ☐ Low ☐ None ☐

3. What is the level of risk that, due to climate change, permanent changes may occur in the ecosystems or environmental conditions in the programme or project territory in the foreseeable future?
Example 1: Changes in temperature and rainfall in mountainous regions may cause certain crops to become unviable and migrate to higher latitudes.

High ☐ Medium ☐ Low ☐ None ☐

4. What is the level of risk that these permanent climate changes may also affect the socio-economic systems in the programme or project territory?
Example 1: Melting of glaciers and changes in water availability may worsen existing social conflicts related to this resource.

High ☐ Medium ☐ Low ☐ None ☐

5. What is the level of risk that a project's objectives are not met or are less effective due to climate change?
Example 1: Crop yields enhanced by the project are likely to decrease due to changes in temperature and precipitation patterns.
Example 2: Project beneficiaries could be significantly affected by climate change, thus blocking them from further participation in the project due to a loss or deterioration of their means of living, due to displacements, illnesses, etc.

High ☐ Medium ☐ Low ☐ None ☐

6. What is the level of risk that the project would contribute to maladaptation (processes that in the long-run increase the vulnerability of people or ecosystems) if we do not consider aspects of climate change in its programming or implementation?
Example 1: A solidarity-housing programme that supports settlements in low coastal zones does not consider aspects of climate change or the risk of a rising sea level that would affect those homes.

High ☐ Medium ☐ Low ☐ None ☐

7. To what degree will the project and its activities contribute GHG emissions?
Example 1: Technical assistance to formulating territorial zoning plans that privileges private motorized transportation
Example 2: The habit of leaving office lights on during lunchtime; the use of plastic cups, or of not recycling paper, etc.

High ☐ Medium ☐ Low ☐ None ☐

8. Does your programme or project contribute in any way towards the climate change indicator of the United Nations Development Assistance Framework (UNDAF)?, which is:
"No. of public policy and territory-based management tools related to climate change adaptation and mitigation that have been approved, formulated and/or implemented through processes supported by UN Agencies".

Yes ☐ No ☐ Partial ☐ ☐

If the answer to most questions above is at a high level, the project should go through a more detailed evaluation. This second stage will be valuable to identify and analyse climate risks at the programming level, identifying and suggesting potential adaptation measures, and informing project stakeholders about potential impacts of climate change (potentially using the 'Quality Standards'). This will contribute to decreasing the vulnerability of beneficiary groups and having a greater success in the fulfilment of programme or project objectives.

In order to complete this questionnaire, it is necessary that the project or programme manger have knowledge of the programme or project, its location, and build on consultations with the entities and leaders of the locality. Specific information on Colombia can be found on the following website: www.cambioclimatico.gov.co.

Available project products

1. Evaluation of Climate Risks and Opportunities in the Colombian UNDAF (2008-2012), and annexes on UN projects and national development policies
2. Institutional mapping: Stakeholders addressing issues of climate change in Colombia
3. Mapping of UN initiatives on climate change in Colombia (drafted as a baseline for the evaluation of the UNDAF climate change indicator)
4. Aide-memoires from the "National Dialogue on Poverty and Climate Change Adaptation", with recommendations for the integration of climate change
5. Presentations and materials on the work performed in the National Dialogue and the two training sessions
6. UNDP methodology for mainstreaming climate change: "Quality Standards for the integration of Adaptation to Climate Change into Development Programming"
7. Video from three conferences on climate change
8. Project brochure
9. Climate Change Checklist for a quick evaluation of UN programmes and projects (drafted for the GICC), included in this publication
10. Compilation CD with 122 reference documents related to climate change at the national and international levels

* Products 1 through 9 are available on the mini Website of the project: www.pnud.org.co/cambioclimatico.

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