

Delivering on Paris: Implementation of an international breakthrough

Jorge H. Maldonado Universidad de los Andes Bogotá - Colombia



Jorge H Maldonado Universidad de los Andes

CARBON, FORESTS AND CONSERVATION INITIATIVES IN COLOMBIA: CHALLENGES AND CLIMATE OPPORTUNITIES



Background

- Colombia generates 0.46% of global GHG
- 39% is caused by deforestation and LUC, 19% from agriculture, 10% from transport, 9% from energy
- The country losses around 150-200 K ha per year of its natural forests, generating an impact not only on carbon but also on biodiversity and water provision
- In order to protect forests and meet goals from Paris, several initiatives are in place at the National level



- <u>Adaptation</u>, focused on increasing resilience and adaptive capacity at sectorial and regional levels. Main strategies aim to reach:
 - Climate change plans for the entire territory
 - A national system of adaptation indicators
 - Management of main watersheds
 - Protection of paramos (high altitude mountain ecosystems)
 - Increase of effective protected areas
 - Adaptation actions in six main sectors



- Payment for environmental services,
 - Focused on carbon, biodiversity and hydrological services
 - Colombia is leader in the implementation of private PES initiatives
 - A law for promoting PES at the national, regional and local levels is running
 - BanCO2 is a private bank initiative to compensate agricultural producers reducing deforestation and increasing forest cover



- Special attention must be put in paramos and coastal ecosystems,
 - Paramos provide water for near 20 million people, but climate change is affecting its ability to do that
 - At coastal level, mangroves and seagrasses have demonstrated high potential for effective carbon sequestration
 - But these ecosystems are inhabited but people in extreme poverty, with low adaptive capacity and high vulnerability
 - Socio-ecological systems must be considered



Main Research areas of the group at Uniandes

- Already in place:
 - How uncertainty brought by global changes, in markets or climate, affect the propensity of rural agents such as farmers or fishers to cooperate in the maintaining water provision infrastructure and fishing overexploitation, respectively (funded by NSF). Based on field experiments.
- Future research:
 - To analyze adaptation to climate change by local communities in coastal ecosystems (Caribbean and Pacific), characterized by high vulnerability and dependence on natural resources, and exposed to climatic events and disturbances.
 - Assessment of the new policy on payments for environmental services (PES) to be adopted in the country.



Other initiatives going on at Uniandes

- A recently created program of masters on environmental economics
 - With students that can be currently official from public institutions working on CC-forestrybiodiversity issues.
- The involvement of the University as an EfD center:
 - With a pool of researchers from Uniandes and other two national universities
 - With interest in policy relevant research.
- An agreement with Wellington Victoria



THANKS



Jorge H Maldonado Universidad de los Andes

EMISSIONS TRADING IN COLOMBIA: KEY ISSUES



Background

- INDC for Colombia,
 - Emissions reduction by 20% compared against 2030 expected level
 - Increase of resilience and adaptive capacity at sectoral and regional levels
 - Foster exchange of knowledge, technology and financing to accelerate contributions



- For reducing emissions:
 - A carbon tax has been proposed in the coming tax reform
 - About 5 USD per ton of CO2-eq
 - Focused on liquid fossil fuels, not coal, not natural gas, mainly on gasoline and diesel
 - There is no yet assessments of this instrument or its impacts on Paris commitments
 - There is a challenge on assessing this and designing or evaluating other potential instruments yet to be developed



- For reducing deforestation,
 - Payments for environmental services, PES, are in the middle of the public and private discussion
 - A need for evaluation in terms of carbon impacts is evident
 - Previous evaluations are based on hydrological services
 - High involvement of private financial sector (BanCO2)



Main Research areas of the group at Uniandes

- To design a congestion price scheme for Bogotá. This scheme would not only address carbon emissions but would also help to reduce congestion.
- Evaluation of the carbon tax proposed by the current tax reform.
- Other initiatives needed
 - Role of potential carbon markets
 - Analysis of the rules around carbon targets
 - How these targets should be measured
 - How to evaluate their fulfilment



THANKS



Jorge H Maldonado Universidad de los Andes

PUBLIC PANEL: COLOMBIA AND ITS CHALLENGES AND CLIMATE OPPORTUNITIES



Background

- Colombia generates 0.46% of global GHG
- 39% is caused by deforestation and LUC, 19% from agriculture, 10% from transport, 9% from energy
- The country losses around 150-200 K ha per year of its natural forests, generating an impact not only on carbon but also on biodiversity and water provision
- Colombia is considered a megadiverse country hosting 12% of biodiversity on less than 1% of surface, first on birds
- Colombia is a country highly vulnerable due to its geography and location
- The government is struggling for a peace agreement with guerrillas after 52 years of war
- According to the INDC, the country commits to reduce 20% of expected emissions by 2030



The strategy

- Colombia created a National Policy of Climate Change and a National System of Climate Change (Decree 298/2016), based on three strategies
 - National strategy for low-carbon development
 - National plan of adaptation to Climate Change
 - National strategy of reduced emissions from deforestation and degradation (REDD+)



INDC

- Colombian INDC is based on three pillars
 - Mitigation: 20% reduction from 2030 scenario
 - Adaptation: increase of resilience and adaptive capacity of key sectors and regions
 - Exchange of knowledge, technology and financing to accelerate contribution; it is considered innovative as it considers:
 - Private banks involvement
 - Commitment and dialogue from central and local governments
 - South-south cooperation
 - · Capacity building
 - Climate change plans for sustainable and competitive cities



INDC

- The strategy wants to consider
 - Exploring synergies between mitigation and adaptation
 - Adaptation based on socio-ecosystems
 - Articulation with risk management and early warnings systems
 - Adaptation of infrastructure
 - Sectorial and territorial planning
 - Education
 - Peace territories with climate change considerations



Challenges

- To analyze and understand the most effective ways of facing climate change, not only in terms of mitigation but, mainly, in terms of adaptation.
- Biodiversity and water provision are relevant issues here
- And a green development is a new challenge we are facing
- Capacity building, cooperation and society involvement are key factors
- Peace process will open many other opportunities and challenges.