

# Colombia

## Scaling-up Mountain Ecosystem-based Adaptation: building evidence, replicating success, and informing policy



Secha Lagoon and the páramos of Chingaza Natural National Park, Colombia © Matthieu Cattin

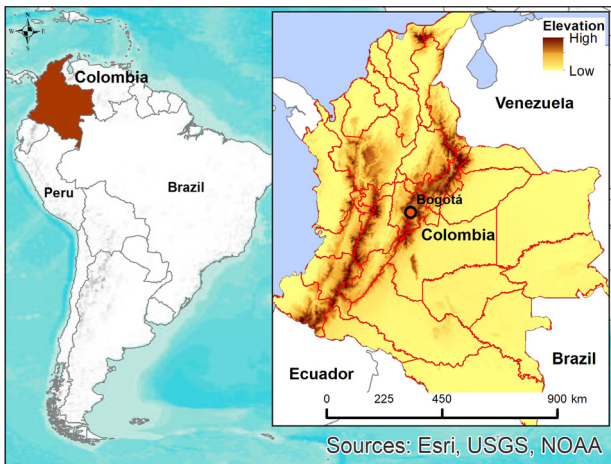
### Background

About 60% of Colombia's 49 million strong population is concentrated in the highlands of the Andes mountain range of South America.

The high mountain belt (above 2,800 m in elevation) includes a suite of ecosystems comprising cloud forests, *páramos* (a type of alpine tundra found only in Andes mountains above 3,810 m), wetlands, periglacial snowfields (characterised by freeze-thaw cycles and the presence of permafrost), and glacier ice caps. The Colombian High Andes are part of an important global biodiversity hotspot and Colombia is considered one of the world's megadiverse countries. These mountain ecosystems provide a range of life-sustaining ecosystem services.

For example, the *páramos* ecosystem is a water tower: intercepting water from fog, rain and melting glaciers, storing it, and then releasing it into the lowlands. It is estimated that 40 million people (including residents of the capital Bogotá) depend on the *páramos* for drinking water. The peat soils in the wetlands are carbon sinks.

These mountain ecosystems are also considered to be among the most vulnerable to climate change. From 1950-2000, the average warming in Colombia was 0.1–0.28°C per decade, but in the *páramos*, the rate has been as much as 0.78°C per decade. There is a general trend of increase in precipitation. These climatic changes can cause altitudinal shifts in the distribution of species and their composition, as well as cause a drastic reduction of



the páramos ecosystem. In addition, this warming has accelerated the retreat of the glaciers of the region – there has already been a 38% loss of glacier area since the 1950s. These changes in ecosystems will result in the reduction or loss of their invaluable services.

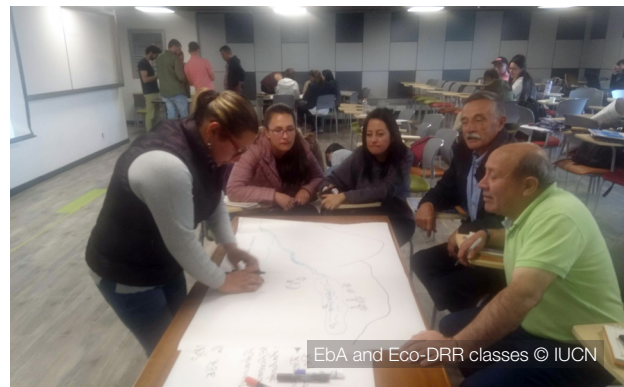
### Scaling-up Mountain Ecosystem-based Adaptation in Colombia

In Colombia, the Scaling-up Mountain EbA project was implemented by the IUCN Regional Office for South America and focused on three key areas:

1. *Collaboration with the GEF-funded project 'Adaptation to Climate Impacts in Water Regulation and Supply for the Chingaza-Sumapaz-Guerrero Area'.*
  - Commissioned by the Colombian Ministry of Environment (Ministerio de Ambiente y Desarrollo Sostenible - Minambiente) and implemented by Conservation International (CI) Colombia, this GEF project aimed to strengthen the hydrological buffering and regulation capacity of the upper watershed of Chingaza-Sumapaz-Guerrero that supplies drinking water to the Bogotá metropolitan area and the adjoining rural municipalities.
  - The Scaling-up Mountain EbA Project collaborated with capacity building processes in Colombia, as well as exchanges of tools and experiences between Colombia and Perú. In addition, the project partnered in a session on Nature-based Solutions (NbS) and EbA with Minambiente, CI and other organisations. These actions are detailed later in the following points.
2. *Contributing to capacity building processes and the exchange of experiences: spaces for capacity building have been developed both at local and national levels.*
  - Thirty persons from different organisations in

Perú and Colombia participated in the training event 'Campaigns for Conservation' (C4C Perú), organised under the aegis of the Scaling-up Mountain EbA project in Perú, by Rare (a global centre for behavioural science and design for the environment), the International Federation of Organic Agriculture Movements (IFOAM), the Nor Yauyos Cochabamba Landscape Reserve (part of the National Service of Natural Areas Protected by the State (Servicio Nacional de Áreas Naturales Protegidas por el Estado, SERNANP) and the Instituto de Montaña. This training focused on teaching participants to implement social marketing strategies to generate behavioural changes on environmental issues and reduce the adverse effects of extreme weather events on livestock and people.

- Within an e-learning course on NbS in Chile (implemented as another IKI project), Minambiente shared their country's prioritisation of EbA in adaptation processes in Colombia. The experience of the GEF Project was also shared.
- The Scaling-up Mountain EbA Project collaborated with the GEF's project's diploma course on 'Climate change management in environmental and territorial planning' by preparing and conducting classes on EbA and Ecosystem-based Disaster Risk Reduction. These classes were held for 50 key





actors such as various local government officers of the GEF project sites (of the 21 municipalities of the Chingaza-Sumapaz-Guerrero Corridor). These classes included the NbS and EbA concepts, the resources and tools available to facilitate their implementation, hands-on exercises, and EbA case studies (including Mountain EbA) and Eco-DRR (including EPIC, which was also in mountain ecosystems in Chilean Andes).

- IUCN South America, in close collaboration with Minambiente, developed an e-learning course on EbA adapted to the Colombian context (see more details in box down below).

The virtual course 'Nature-based Solutions for a sustainable and resilient development in Colombia' is a key deliverable of the project. This course is a direct response to the objectives of the country's NAP (1B: Education, training, communication, and public awareness on climate change, and 1C: Strengthening of institutional capacities for adaptation to climate change) and aims to:

- Strengthen capacities, concepts, and tools in the application of NbS, with emphasis on the EbA approach;
- Socialise the regulatory framework on climate change policies and how NbS and EbA are integrated; and
- Share experiences and lessons learned on the implementation of EbA initiatives in mountains and other key ecosystems (with important interconnections in this diversely biogeographical country).

In addition, this course promotes collaboration among various initiatives and organisations, capitalising on ongoing climate change adaptation efforts through the development of 'state-of-the-art' materials about Colombia's progress on EbA, as well as a compilation of practical experiences and learning. Through this work, the creation of a practitioners' network on NbS and EbA is expected as a basis to promote and scale-up this knowledge and practice.

To design the course, a survey was developed and shared widely within the country to gather topics of interest and define key elements of the course content. More than 122 responses were received. Based on them, four modules have been designed for a target group of professionals and representatives from public, academic, private, and civil society institutions at local and national levels.

By mid-October 22, 238 persons had registered for the course (59% women) and are from 55 diverse areas/cities of Colombia, and 71 institutions).

The course is hosted on 'Savia', the virtual platform of the Ministry of Environment.



Sharing experiences: NbS and EbA presentation © IUCN



Meeting with officers of the Ministry of Environment © IUCN



Stand Pavilion Colombia, COP25, Madrid © IUCN

### Scaling-up: integration of EbA at the National Level

- Colombia has adopted NbS and EbA in their climate change policies and instruments (for example, in the NAP and NDCs). The project has contributed to position better these concepts and approaches through its various actions.
- Through its three foci, the project in Colombia has shared widely the mountain EbA approach, its concepts, experiences and lessons learned (whether virtually or in person) in diverse spaces – locally, nationally and internationally, and has supported the dissemination of the prioritisation of EbA in Colombia.

These include:

- Supporting the celebration event for 10 years of EbA in Colombia, with a presentation on ‘NbS and EbA in policy and planning instruments’.
- Presentation on the NbS and EbA experiences, including experiences from the Mountain EbA project, at the Territorial Planning Workshop (on the topic of land use improvements for the resilience of ecosystems to climate change) organised by the Colombian National Planning Directorate and IUCN.
- Presentation on NbS and EbA experiences, including experiences from the Mountain EbA project, at the Virtual Forum of Climate Change and Protected Areas, organised by the National Natural Parks of Colombia.
- Presentation on experiences of monitoring and evaluation, and tools of EbA at the National Working Group on Climate Change Adaptation Monitoring and Evaluation in Colombia, organised by Fondo Acción.
- Presentation on NbS and EbA at the Regional Workshop Green List of Protected and Conserved Areas, organised by IUCN, within another IKI project.
- Sharing experience on the GEF project in Colombia at webinars on EbA in urban and rural ecosystems, organised by GIZ and IUCN.
- Co-organisation with the Ministry of Environment and CI of the workshop ‘NbS, EbA criteria and other challenges’ which convened personnel from EbA initiatives in Colombia to strengthen their articulation, and the adoption of the EbA criteria and quality standards. The integration of EbA in the NDCs of Colombia was also analysed at this workshop.
- IUCN participated in the first International Climate Initiative (IKI) project interface workshop within the NDC Policy Programme, held in Bogotá (organised by GIZ in Colombia) and shared experiences from the projects ‘Scaling up Mountain Ecosystem-based Adaptation’ and ‘IUCN Green List of Protected and Conserved Areas’. The workshop shared knowledge about the IKI portfolio in Colombia and discussed synergies between projects and defined tools for smooth communication and cooperation.
- Participation of IUCN in the NbS Session in the Colombian pavilion at UNFCCC COP 25 to highlight the importance of NbS and EbA in climate change policy processes.

## Setting up cooperation with organisations

- The development of the e-learning course has already garnered the support of many professionals and organisations. For example, the Chair of the IUCN Commission on Ecosystem Management presented the topic of ‘NbS and its Global Standard’ in the first webinar. In addition, a team member from the Scaling-up Mountain EbA project in Perú presented the EbA concept, its criteria and practical examples, highlighting the key aspects and lessons learned from the Mountain EbA experience.
- The e-learning course will highlight EbA case studies from different ecosystems in Colombia, and involves collaboration with the following organisations, who implement these initiatives, such as:
  - Conservation International, Colombia;
  - The Consortium for the Sustainable Development of the Andean Ecoregion (CONDESAN);
  - Fundación Futuro Latinoamericano (FFLA);
  - The Nature Conservancy (TNC);
  - Fondo Adaptación;
  - United Nations Development Program (UNDP);
  - World Food Program (WFP); and
  - Fundación Natura.

## Conclusion

Through its efforts on capacity building and creation of awareness in different contexts and for diverse audiences, the Scaling-up Mountain EbA project in Colombia has contributed to enhancing knowledge and the visibility of EbA in the country. It has positioned – in the spotlight – the progress of EbA experiences from the Mountain EbA flagship and extension countries, for application in the high mountain ecosystems of Colombia, which are so critical for the well-being not only of people who live in the mountains, but also those who live downstream.

## For more information contact

Ali Rizvi Raza  
Head, Climate Change Team  
Centre for Economy and Finance  
IUCN (International Union for Conservation of Nature)  
Email [Ali.Raza@iucn.org](mailto:Ali.Raza@iucn.org)  
<https://www.iucn.org/our-work/topic/ecosystem-based-adaptation/scaling-mountain-eba>