

Colombia

Restoration Opportunities Assessment Methodology

ROAM COUNTRY BRIEF

A set of key enabling factors for forest landscape restoration (FLR) are in place: a national restoration plan, a sub-national FLR opportunities assessment, water funds and a restoration network.

Why FLR

Colombia is the second most biodiverse country in the world with more than 56,343 species, and high levels of endemism and ecosystem heterogeneity. Many of these biomes are facing significant threats as 40% of the territory is degraded with high rates of deforestation (IUCN, 2018). This is partly due to high levels of social conflict resulting largely from overexploitation of resources, absence of government and inequality. The Caribbean and Andean regions of the country show the highest levels of degradation, with around 22 million ha to be restored. However, alarming signs of degradation and deforestation are also appearing in areas, such as the Amazon. In the eastern plains savannah, degradation is not evident from satellite images since pasture appears identical to natural vegetation cover.

The Ministry of Environment and Sustainable Development (MADS) has been working to restore degraded areas for more than three decades. Colombia's National Development Plan (NDP) 2014–2018 commits to the restoration of 210,000 ha, which are monitored and partly implemented by MADS and other entities, such as regional authorities and the private sector. As part of the Bonn Challenge, in 2014, the government of Colombia committed to restore one million hectares of degraded land through Initiative 20x20 guided by the National Restoration Plan. A Colombian Restoration Network has been created to coordinate the broad range of technical, academic and environmental stakeholders.

For further information, please see: [Challenges and opportunities for forest landscape restoration in Colombia](#)

QUICK FACTS

- **Colombia has pledged 1 million ha as a contribution to the Bonn Challenge.**
- **Colombia created a National Plan for Restoration.**
- **FLR, productive and sustainable activities, such as ecotourism, offer new livelihood options for returning populations displaced by the armed conflict.**

Eastern Antioquia

To support Colombia in reaching its one million ha goal, IUCN, in collaboration with the Alexander von Humboldt Research Institute of Biological Resources (IAVH), the Regional Corporation of the Basins of the Rivers Negro-Nare (Cornare) and the Catholic University of the East (UCO), applied the country's first Restoration Opportunities Assessment Methodology (ROAM) in eastern Antioquia in 2016. IAVH led the process to evaluate the context and feasibility of ROAM implementation at the national level.

Eastern Antioquia was selected as a high priority for restoring degraded lands. It is a post conflict area affected by violence, with large numbers of displaced populations returning to their lands. This is expanding the frontiers of agricultural and livestock land use and increasing deforestation. The region is rich in biodiversity and located in proximity to large population centres.

The following steps were part of the ROAM process:

Restoration priority areas: Using a multi-criteria approach, the process considered the recovery of connectivity between protected areas through a productive landscape matrix.

Conservation priority areas: An ecological and ecotourism ecosystem services analysis was carried out and modelled alongside physical variables to spatially visualise pollination, carbon sequestration, erosion/sedimentation control, and food and water regulation.

Planning and implementation: Landowners across-sectors were engaged to ensure results both at the property and landscape level.

Cost-benefits of restoration interventions: Economic advantages of restoration in productive landscapes were assessed. Agroforestry, especially cocoa and coffee, short-cycle forestry and citrus fruits showed positive benefits compared to its costs and generate additional income.

Integrated landscape management: Guidelines were identified for restoration, establishing nurseries, ecotourism, agroforestry and silvopastoral systems. Based on these steps, the Humboldt Institute, UCO and Cornare proposed a set of productive systems to support productive ecological restoration and increase efficiency, while also improving or generating ecosystem services.

Scaling-up ROAM

Following the suggestions below, the ROAM process in eastern Antioquia can be replicated in other regions of the country:

- Consider the balance between natural heritage and human well-being at the beginning of the land use planning phase.
- Optimise spatial location and proportion of different land uses through planning, considering the multiple functions of the landscape, including human settlements, production and preserved or restored natural areas.
- Conduct a multi-criteria analysis in areas with smallholder land use.

- Include spatial proposals for land use and alternative means to maintain the natural/productivity balance.
- Consider gender equity, well-being and livelihoods, community-specific interests, and ecosystem restoration needs.
- Raise awareness early on with local stakeholders, so they are fully engaged in the restoration process.
- Engage landowners from the start to achieve sustainability and include a monitoring plan with socio-environmental variables.
- Generate a strategy that responds to the needs and interests of new generations.

Next steps

The ROAM process in eastern Antioquia can be replicated in other regions of the country to capitalise on the sub-national approach and achieve national and global sustainability objectives. The FLR approach should be scaled-up in land-use planning for all sectors that have an impact on land use. Restoration must be integrated, for example, with productive, development and planning programmes, for sustainable development, carbon sequestration, productive land-use planning and peace initiatives. Given the current reality in Colombia, additional effort must be made to develop integrated proposals that awaken the interest of new generations towards the countryside, with prospects for their families in a peaceful, productive and high quality environment.

For further information, please see:

[Results of the forest landscape restoration opportunities assessment in Eastern Antioquia](#)

[Lessons learned and recommendations from the forest landscape restoration opportunities assessment in Eastern Antioquia](#)

[Landscapes, at your service: applications of the restoration opportunities optimization tool](#)

Resources:

InfoFLR.org

iucn.org/forests

