

# Nicaragua

## Restoration Opportunities Assessment Methodology

## ROAM COUNTRY BRIEF

*The adoption of sustainable land management, restoration techniques and an ecosystem-based approach will enable the restoration of rural landscapes for environmental, social and economic development.*

### Why FLR

Since 1983, Nicaragua lost more than half of its forested area (4.32 million ha by 2015).<sup>1</sup> The North Caribbean Coast Autonomous Region (RACCN)<sup>2</sup> covers 27% of the national territory and encompasses more than 40% of the country's forest cover.<sup>3</sup> Despite the natural richness and potential for economic development based on natural resources, RACCN suffers from degradation processes, affecting the population's living conditions.

The main factor in ecosystem and rural landscape degradation in the RACCN is the expansion of extensive livestock farming, along with illegal extraction of timber, increase in land rent prices and land encroachment. These factors have caused a high degree of deterioration of deforested lands and resulted in unproductive pastures.

Furthermore, Nicaragua is particularly susceptible to extreme weather events. To address this challenge, social and ecosystem resilience has been identified as a national priority to be supported through projects and programmes for climate change adaptation.

The RACCN government, through SERENA and the Forest and Environment Consultative Committee (CCF-A), has prioritised the implementation of restoration actions for the recovery of ecosystem goods and services within the framework of the Forestry Development Agenda. This process includes the participation of a wide range of actors from across the region, and technical and

<sup>1</sup> MARENA (2008). Programa forestal nacional del poder ciudadano

<sup>2</sup> RACCN – Región Autónoma de la Costa Caribe Norte

<sup>3</sup> INAFOR (2009). Programa Nacional Forestal del Poder Ciudadano

### QUICK FACTS

- **Nicaragua has pledged 2.7 million hectares by 2020 to the Bonn Challenge. The country is expected to benefit US\$ 848 million from implementing the FLR commitment, which in turn will sequester 0.26 GtCO<sub>2</sub>.**
- **100,000 ha are to be restored in RACCN during the first five years.**
- **Implementing FLR in the priority areas identified in the RACCN is expected to cost US\$ 259 million.**

financial support from IUCN. Using the Restoration Opportunities Assessment Methodology (ROAM), an extensive stakeholder participation and consensus at the regional level, led to the formulation of RACCN's Rural Productive Restoration Strategy, with an implementation timeframe of 20 years.

### How to restore the landscape

A total of 1.2 million ha were identified to have potential for restoration in RACCN, 60% of which are found in indigenous territories. A multi-criteria spatial analysis resulted in the identification of 851,920 ha as very high to medium priority levels.

Restoration goals were established, taking into account the 400,000 ha Nicaragua committed in its ER-PIN Program, as well as 100,000 ha RACCN decided to contribute to this commitment during the first five years of the initial phase of implementation. Restoration interventions were prioritised for the current main land uses, as follows:

Current land use	Restoration intervention
-Natural savannah pasture	-Forestation with pine -Recovery of traditional perennial crops
-Tacotales (secondary woody vegetation) -Shrub/herbaceous vegetation -Broadleaf regenerating forest	-Natural and assisted regeneration
-Crops/pasture -Pasture	-Silvopastoral systems (SPS) with forage trees -Technological changes and management techniques
-Annual crops	-Good agriculture practices -Agroforestry systems (AFS)

## Benefits and Opportunities

Restoration will enhance ecosystem services by reducing soil degradation, increasing water availability for human consumption, protecting water sources that supply productive systems, reducing the occurrence of landslides, and improving the health and biodiversity of ecosystems.

In addition to environmental benefits, tangible economic and social benefits were also identified from the prioritised productive actions, thus improving local livelihoods.

With the exception of AFS in natural pasture savannah, all transitions have a positive net income. Implementation of SPS can offer returns that reach US\$ 12,962 per ha per year, mainly due to the co-benefit of avoided deforestation.

Land use transitions with the greatest potential for financing are: i) cocoa AFS in annual crop areas; ii) SPS in degraded pasture areas; iii) natural or assisted regeneration in degraded broadleaf forest areas; and iv) AFS with fruit trees.

The FLR strategy responds to the objectives and goals of different national, regional and international planning instruments, such as:

- The Bonn Challenge;
- national human development plan of each RACCN country;
- national and regional climate change strategies;
- national strategy for forests and climate change to address poverty (ENDE-REDD+);
- development strategy of the Caribbean Coast; and
- forest development strategy for the RACCN (EDFOR-RACCN).

## Next steps

The following recommendations are suggested to ensure successful FLR:

- CCF-A should remain active and largely responsible for the implementation of the Productive Rural Landscape Restoration Strategy in RACCN.
- The Technical Group should become the technical advisor for strategy implementation and a member of the sub-regional restoration committee. The group will be responsible for the development of a portfolio of projects and the implementation of pilot projects linked to productive rural landscape restoration.
- The development of action plans for particular RACCN landscapes is important to improve governance processes and ensure implementation according to specific needs.

**For further information, please see:**  
[Technical manual on functional restoration of rural landscapes](#)

**Resources:**  
[InfoFLR.org](http://InfoFLR.org)  
[iucn.org/forests](http://iucn.org/forests)



**INFOFLR**  
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