Honduras

Restoration Opportunities Assessment Methodology

ROAM
COUNTRY
BRIEF

Restoration interventions create new income generating opportunities, improve environmental conditions, ensure participation of women and enable access to economic forest protection incentives.

Why FLR

Forest degradation and climate change threaten all Hondurans, affecting their livelihoods and food security, increasing poverty and accelerating migration.

In 2016, Honduras committed to restore one million ha as part of the Bonn Challenge initiative. Restoration is a common theme in international commitments made by the country, such as to the United Nations Framework Convention on Climate Change, the Sustainable Development Goals, the United Nations Convention to Combat Desertification, and the Convention on Biological Diversity.

The Honduran Ministry of Environment, MiAmbiente+, in partnership with IUCN, implemented a participatory process to prepare the National Program for the Recovery of Goods and Services of Degraded Ecosystems (PNRBSED), which seeks to restore the prioritised productive rural landscapes in the country.

To advance FLR implementation in Honduras, PNRBSED was structured into five strategic areas:

- Strengthening inter-institutional coordination, and legal and political frameworks;
- Governance;
- Diversification of productive systems;
- Finance;
- Knowledge management, awareness, and monitoring.

QUICK FACTS

- **Honduras has pledged one million ha to the Bonn Challenge.**
- **2,287,512 ha of priority FLR opportunities identified.**
- **Up to HNL 411,384 per ha of net marginal benefits from restored landscapes.**
- **Up to 40 t CO_2eq per ha per year of carbon sequestration through forest restoration.**

The plan includes strategic guidelines and defines several actions associated with each of the five areas. The implementation of these actions should be guided by annual operational plans that are to be developed.

How to restore the landscape

Eight current land uses were prioritised, with a series of 11 restoration interventions:

- Cocoa agroforestry system
- Coffee agroforestry
- Alley cropping system
- Quesungual agroforestry system
- Firewood plantation
- High value timber plantation
- Silvopastoral system
- Mangrove ecological restoration
- Mangrove reforestation

- Fire protection in conifer forests
- Pine reforestation in conifer forests affected by beetles.

A multi-criteria spatial analysis, including financial, social and environmental benefits, resulted in a map with 1 million ha of priority restoration areas to be achieved in a 10-year timeframe (2018–2028).

The active participation of women in restoration planning and implementation can improve governance and conservation of existing natural resources. Gender-responsive restoration interventions are more sustainable due to the central role women play as foresters, farmers and food providers.

Benefits and Opportunities

The Restoration Opportunities Assessment Methodology (ROAM) enabled the identification of restoration opportunities at the national level, focusing on the recovery of ecosystem goods and services such as:

- Protecting biodiversity;
- improving drinking water quality and quantity;
- reducing the impact of natural disasters;
- protecting coastal areas and provisioning of natural resources (mangrove ecosystem);
- reducing the effects of drought;
- restoring areas affected by pests; and
- strengthening the implementation of agroforestry systems.

The economic analysis estimated the monetary costs and benefits generated by each intervention, demonstrating the incremental benefit and co-benefits of FLR when compared to current land uses.

The majority of the proposed restoration interventions produce greater economic benefits when compared to the current land use scenario. The positive net marginal benefit values range from HNL 411,384 to HNL 53,903 per hectare.

With regard to carbon sequestration, interventions with the greatest mitigation potential are:

FLR positive net marginal benefit (HNL/ha)*

- Alley cropping system (411,384)
- Mangrove reforestation (379,012)
- Mangrove ecological restoration (209,900)
- High-value timber plantation (126,611)
- Coffee agroforestry > 900 m above sea level (125,440)
- Silvopastoral system (116,669)
- Firewood forestry (66,467)
- Cocoa agroforestry system (53,903)

* Net present value at a 10% return rate in 30 years.

Carbon sequestration*

(t CO_2eq per ha)

- High-value timber plantation (40)
- Mangrove reforestation (34)
- Mangrove ecological restoration (29)
- Firewood forestry (20)
- Coffee agroforestry > 900 m above sea level (18)

* In t CO2eq per ha per year over 30 years.

The implementation of agroforestry systems with basic grains (alley cropping and quesungual agroforestry) and the silvopastoral system have the greatest average impact on erosion reduction and sediment retention. In general, all restoration interventions show positive results in terms of co-benefits.

With regard to social co-benefits, all transition interventions are activities that generate additional job opportunities compared to current land use, both in the short and long term, except for the implementation of the alleys cropping with basic grains.

For further information:
Economic analysis of restoration of productive landscapes in Honduras

Resources:
InfoFLR.org
iucn.org/forests

IUCN

INFOFLR by IUCN