

*Forest landscape restoration (FLR) is a cost-effective, nature-based solution for Ghana to increase terrestrial carbon stocks and ensure that nearly all restoration activities produce more ecosystem goods services for each tonne of sequestered CO<sub>2</sub>e, compared to avoided deforestation.*

## Why FLR

Ghana's forests have been declining since the 1970s, with high rates of deforestation and land degradation. Forest loss and degradation also produce economic problems as 70% of the country's population rely on forests for livelihoods. Major threats to forests include unsustainable agriculture, mining, logging and charcoal production.

In order to halt and reverse this situation, the government identified the need to apply the Restoration Opportunities Assessment Methodology (ROAM). By implementing the FLR approach, Ghana aims to restore ecological integrity and improve provision of ecosystem goods and services to its citizens, with special attention to the Northern Savannah Ecological zone, a biodiversity-rich priority area. In addition, Ghana collaborated with the West Africa Biodiversity and Climate Change (WA BiCC) programme to improve the country's conservation and climate resilience objectives. Ghana made a pledge to the Bonn Challenge, to restore 2 million ha of forests by 2030. Moreover, through FLR, Ghana will implement its policies, such as the Ghana Plantation Development Strategy (2016–2040), in alignment with the Aichi Biodiversity Targets, nationally determined contributions to the Paris Agreement under UNFCCC, land degradation neutrality under UNCCD, and the REDD+ goals.

## How to restore the landscape

ROAM was carried out in two phases. The first phase in 2011 resulted in a carbon

## QUICK FACTS

- **Almost 14 million ha of potential areas for restoration were identified.**
- **Agroforestry offers the greatest net benefits per ha; under a 10% discount rate it generates approximately 346,000 Ghanaian cedis per ha.**
- **The carbon abatement curve helped Ghana to secure US\$ 50 million in financing for FLR.**

abatement curve to rank restoration interventions, which helped Ghana secure US\$ 50 million in financing for FLR activities. This phase identified additional cost-effective opportunities to increase terrestrial carbon stocks in addition to avoided deforestation. The second phase (2016–2017) was initiated by the WA BiCC programme, which produced ten regional FLR opportunity maps. Multi-sector stakeholders contributed to data collection and analysis through regional workshops.

The following FLR interventions were recommended:

- **Planted forests and woodlots:** Restoration includes indigenous or exotic species used in construction, for fuelwood and non-wood products; operated by the government, private sector or community woodlots with short rotation harvesting; women's participation is key in the design and implementation of this option due to their traditional roles as main collectors, processors and users of wood fuel.
- **Natural regeneration:** Fire prevention, grazing control, direct seeding and weed suppression activities.

- **Silviculture:** Protection of existing forest, natural forest management, land reclamation; also includes grazing control and direct seeding.
- **Agroforestry:** Conservation agriculture, farmer-managed natural regeneration and silvo-pastoral systems, apiculture, and intercropping with trees.
- Improved fallow: Fallow enrichment, fire management and contour planting in hilly landscapes.
- **Mangrove restoration and watershed protection:** Establishment or enhancement of areas and management improvement.
- **Protected or reserve areas:** Natural regeneration is suitable for wide scale restoration.

Private, public and private-public partnerships from national and international funding sources were also analysed and identified as potential financing options, especially those related to climate change mitigation.

## Carbon analysis

During phase one of ROAM application, with the support from the Ghana's Forestry Commission, IUCN used a stakeholder led process to conduct **cost-benefit analysis** and identify restoration opportunities for GHG abatement which also created significant ecosystem service benefits. Results indicate that if all opportunities to restore agricultural land with improved farm fallow were implemented, Ghana could increase national terrestrial carbon stocks by 100 MtCO<sub>2</sub>. Moreover, each sequestered tCO<sub>2</sub> would be associated with approximately 95 Ghanaian cedis, reflecting gains in fuelwood and timber, decreased erosion, and increased crop yields and non-timber forest products.

## Key success factors and challenges

Some major success factors already in place for restoration in Ghana include:

- Presence of enabling policies for FLR;
- Suitable ecological conditions; and
- Feasible market conditions.

Some challenges that need to be overcome:

- Community awareness of FLR potential;
- Availability of financial resources;
- Definition of the land tenure system;
- Unresolved gaps with respect to tenure/ownership of naturally occurring trees and their benefits;
- Finalisation of a standardised tree registration process/requirements;
- Development of a monitoring system; and
- Inclusive participation of women and youth in FLR, for example.

## Recommended next steps

FLR is reflected in policy, plans and legal frameworks in Ghana. However, there is limited financial investment by government and little funding available from development partners. Improvements include: awareness of FLR among local communities; well defined land and tree tenure under statutory and customary administration systems; committed financial and human resources; and a monitoring system.

To scale-up FLR in Ghana, the following recommendations were proposed:

- Improve institutional capacity building, law enforcement, and cross-sectoral and multi-stakeholder collaborative approaches.
- Enhance the provision of financial resources for restoration and economic viability, making FLR more profitable to small-scale farmers.
- Promote technical assistance, capacity building, and improved communication about FLR to farmers.
- Provide women with technical and logistics support to bridge the gender capacity gap and harness the role of women in FLR.
- Improve research, optimization of land use, and monitoring.
- Raise social awareness about the values of nature and knowledge about FLR benefits.
- Undertake research on the cost effectiveness of interventions.



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

 INFOFLR  
 by IUCN