

Rehabilitation of the Woodland Landscape

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Introduction

Forest restoration is defined as "activities to re-establish ecological processes that speed up the recovery of forest structure, ecological functioning, and biodiversity levels to those typical of climax forest," i.e. the final stage of natural forest succession. Climax forests are generally stable ecosystems that have reached their maximum biomass, structural complexity, and species variety within the constraints imposed by climate and soil, as well as without continuous human interference (more explanation here). As a result, the Climax forest is the target ecosystem, defining the ultimate goal of forest restoration. Because climate is a primary determinant of climax forest composition, global climate change may cause restoration goals to shift.

Forest restoration is a type of reforestation that differs from traditional tree planting in that it focuses on biodiversity recovery and environmental protection. Forest and landscape restoration (FLR) is a method of restoring ecological functionality and improving human well-being in deforested or degraded areas. FLR was created in response to increasing forest and land degradation and loss, which has resulted in decreased biodiversity and ecological services. The fulfilment of the Sustainable Development Goals will be aided by effective FLR. Hundreds of millions of hectares of degraded forests and other ecosystems can be restored as part of the United Nations Decade on Ecosystem Restoration (2021–2030).

Forest restoration can be as simple as maintaining remnant vegetation (fire avoidance, livestock exclusion, etc.) or as complex as tree planting and/or sowing seeds (direct seeding) of species native to the target ecosystem. Tree species that are planted (or encouraged to grow) in the target ecosystem are those that are native to the ecosystem or offer a crucial ecological function. Restoration initiatives often include economic species among the planted trees to offer subsistence or cash-generating items wherever people reside in or near restoration locations.

Forest restoration is useful wherever one of the primary purposes of reforestation is biodiversity recovery, such as for wildlife conservation, environmental protection, eco-tourism, or the supply of a diverse range of forest products to local communities. Forests can be regenerated in a variety of situations, but degraded sites within protected areas are a top priority, particularly where some climax forest survives as a seed supply. Even in protected regions, significant deforested areas can be found: logged over areas or places that were formerly cleared for cultivation. Restoration of protected areas will be required if they are to serve as Earth's last wildlife refuges.

"A deliberate procedure to restore ecological integrity and increase human well-being in deforested or degraded landscapes," according to Forest

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Landscape Restoration. It includes methods and procedures for integrating site-level forest restoration efforts with desired landscape-level objectives, which are determined through a variety of stakeholder participative mechanisms. The International Union for Conservation of Nature (IUCN), the World Wide Fund for Nature (WWF), the World Resources Institute, and the International Tropical Timber Organization collaborated to develop the concept (ITTO).

FLR was created with the goal of achieving compromises between human and wildlife demands by restoring a variety of forest functions at the landscape level. It comprises activities to improve landscape resilience and ecological integrity, allowing future management options to remain open. Local communities have an important role in defining the environment and profit much from restored forest resources, therefore their participation is essential to the concept. FLR activities are therefore inclusive and participative.

About the study

Within a clear and consistent evaluation and learning framework, FLR incorporates various established ideas and methodologies of development, conservation, and natural resource management, such as landscape character assessment, participatory rural appraisal, adaptive management, and so on. Depending on local environmental and socioeconomic circumstances, a FLR programme may include a variety of forestry operations at various locations across the terrain. These may include secondary and degraded primary forest protection and management, traditional forest restoration techniques such as "assisted" or "accelerated" natural regeneration (ANR) and framework tree species planting to restore degraded areas, as well as conventional tree plantations and agroforestry systems to meet more immediate monetary needs.

The Global Partnership on Forest Landscape Restoration, hosted by the IUCN, coordinates the concept's development around the world. The Forest and Landscape Restoration Mechanism was developed by the United Nations Food and Agricultural Organization in 2014. The Mechanism helps nations execute FLR as part of the Bonn Challenge, which calls for the restoration of 150 million hectares of deforested and degraded lands by 2020, and the Aichi Biodiversity Targets, which deal with ecosystem conservation and restoration [1-5].

Conclusion

FAO produced two discussion papers on sustainable finance for FLR in 2015, in collaboration with the Global Mechanism of the United Nations Convention to Combat Desertification. Sustainable Forest and Landscape Restoration Financing: The Role of Public Policy Makers offers country-specific suggestions and examples of FLR financing. The report Sustainable Financing for Forest and Landscape Restoration - Opportunities, Challenges, and the Way Forward gives an overview of the various financing sources and financial instruments available for FLR projects.

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