



2.1 FAO's Forest and Landscape Restoration Mechanism

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Every year, around 13 million hectares (ha) of land are deforested (FAO 2010), an area the size of Greece. Although more than half the loss is compensated for by afforestation and natural expansion of forests, a significant amount of forest and other productive land is lost annually.

Continued deforestation and land degradation contribute to poverty, hunger and loss of biodiversity in many parts of the world and make it increasingly difficult for farmers and local communities to adapt to the impacts of climate change and increasing competition for scarce resources. These processes threaten the livelihoods, well-being, food, water and energy security, and the resilience of millions of people. Diminishing land productivity is a key issue as the world struggles to increase food production significantly to feed a global population that is estimated to be more than nine billion people in 2050 (UN-DESA 2013).

The challenge of managing land sustainably is made more difficult by sector-based approaches where policies and practices are developed and implemented in relative isolation from one another. Many national planning processes also follow this approach, often with little or no consultation across sectors.

The landscape approach is a means to consider a range of land-use systems such as forestry, agriculture and livestock production in a more integrated manner. Forest and landscape restoration (FLR), based on an integrated landscape approach, has evolved as an option to reverse the increase in degraded land. The scale is immense: according to the Global Partnership on Forest and Landscape Restoration (GPFLR), more than two billion ha of the world's deforested and degraded landscapes — an area larger than South America — have potential for restoration. Restoring this land would help reduce poverty, hunger and the negative impacts of climate change, restore ecosystem services and conserve bio-diversity. This would benefit millions of people worldwide.



FOREST AND LANDSCAPE RESTORATION SHIFTS THE EMPHASIS FROM SIMPLY MAXIMIZING TREE COVER

TO RE-ESTABLISHING ECOSYSTEM FUNCTIONS AT THE LANDSCAPE SCALE.

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Forest and landscape restoration shifts the emphasis from simply maximizing tree cover to re-establishing ecosystem functions at the landscape scale. It seeks a balance between restoring ecosystem services related to habitats and biodiversity, regulating water, carbon storage, etc., and supporting the productive functions of land for agriculture and related uses.

A mosaic approach aims to achieve restoration at a scale large enough to have a significant impact, and to address multiple objectives related to ecosystem protection and improving the productive capacity of land. This approach considers several types of land use over a broad landscape and is the best option for restoring up to three-quarters of the two billion ha of degraded forest land (GPFLR, WRI, South Dakota State University and IUCN 2011). Such an approach, however, adds complexity at several levels; if this complexity is not addressed, it could reduce the likelihood of long-term success.

Recent history of FLR

In recent years awareness has grown of the great potential of FLR, thanks to several international processes and partnerships. The GPFLR, the Landscapes for People, Food and Nature initiative and the International Model Forest Network (IMFN; see article 2.2) are some of the most active global networks — in the case of IMFN, for more than 20 years — that promote sustainable land use across landscapes to meet multiple objectives. These partnerships include many prominent international institutions that do work related to environmental matters and international development. They have contributed to building a critical mass of organizations and governments that are helping to create greater public awareness¹ and are putting FLR on the political agenda in major global processes.

Since 2010, two major initiatives have set targets for restoring degraded land. At the 10th Conference of the Parties to the Convention on Biological Diversity (CBD), held in Japan in October 2010, many of the world's governments adopted the Aichi Biodiversity Targets. One of these (Target 15) calls for countries to restore at least 15% of their degraded ecosystems by 2020. At a ministerial conference in Bonn, Germany in September 2011, the Bonn Challenge was established, which sets a target of restoring at least 150 million ha of degraded land by 2020. To date, several countries and regions have made significant commitments to the Bonn Challenge;² a total of 20 million ha have been pledged so far, with another 30 million proposed. Together, these initiatives are mobilizing many governments, international organizations, NGOs and civil society groups to take action to restore degraded lands. Restoration programmes are being planned or are underway in Brazil, Mexico, Rwanda, Ghana and Guatemala. The initiatives are supported by national and local government agencies and by international institutions including the International Union for the Conservation of Nature (IUCN), the World Resources Institute (WRI), Tropenbos International, Wageningen UR and the Food and Agriculture Organization of the United Nations (FAO).

There is still a significant gap between the level of political support and recognition at the international level and action on the ground to achieve these ambitious targets. In order to meet them, significant efforts are required at the country level to more effectively

connect stakeholders and institutions. Many of them lack the means to jointly consider policy, technological and other considerations that require a well-coordinated approach.

The enabling environment and institutional concerns

In some countries, policies and laws related to one type of land use may conflict or be incompatible with those related to other uses. The responsibility for each sector often lies with a different government department or ministry, and mechanisms for cross-sectoral and interdepartmental consultation are often lacking. This can lead to confusion, conflict or other constraints in implementing and enforcing laws, policies and regulations. This is particularly the case when the boundary between different land uses may not be clear (e.g., trees grown on agricultural land); when the same land users are managing across different types of land use; or when different levels of government (national, regional, provincial, etc.) are involved.

Because mosaic landscape restoration involves more than one type of land use, these institutional, legal and policy issues can strongly influence the effectiveness of restoration programmes. A thorough analysis of the legal and policy frameworks, tools and instruments that affect land use and possible restoration activities may be needed, with appropriate measures taken to harmonize existing policies and laws across sectors, or even devise new ones where gaps exist.

Brazil has taken several steps to revise legal instruments to more effectively integrate land-use concerns across sectors. In its efforts to decrease deforestation in Amazonia, the government has followed an integrated approach to land restoration and recognized the importance of maintaining a minimum amount of forest cover, including on agricultural lands. The Brazilian Forest Code (revised in 2012) now requires a minimum level of forest cover (20–80%) on private land and in protected areas. As a result, reforestation and restoration has become an imperative and is now being carried out in many areas (see article 4.10).

Some analysts attribute the significant reduction in deforestation in the Brazilian Amazon over the past ten years to more effective policies across several sectors that have improved monitoring and enforcement, increased protected land and made access to rural credit dependent on compliance with deforestation legislation (CPI 2012). The Action Plan for the Prevention and Control of Deforestation in the Legal Amazon is seen by many as an effective mechanism for increasing coordination and encouraging revisions to sectoral policies. The Brazilian National Plan on Climate Change is another important milestone for the integration and harmonization of public policies related to land use (see article 5.2).

Brazil's example may prove useful for other countries that face the challenges of developing a more comprehensive and coordinated approach to land use. In cases where institutional reform cannot easily be carried out, there may be scope to establish inter-departmental or inter-ministerial bodies (e.g., coordinating committees, task forces, etc.) that facilitate discussion and consultation across various land-use sectors. The continued

emphasis on restoration efforts by global summits, conferences and similar high-level initiatives can help mobilize the strong political support that is needed at the national level to carry out reforms and establish mechanisms for improved coordination.

Economic considerations

Relatively little data is available on the economic costs and benefits of FLR, and what little data does exist is often scattered and has not been subjected to comprehensive analysis. It is widely accepted, however, that restoring degraded land can require a significant investment of money and human resources, especially in highly degraded areas where intensive land preparation and long-term management and protection may be required. FLR can also bring economic benefits. According to IUCN estimates (GPFLR, WRI, South Dakota State University and IUCN 2011), reaching the restoration target of the Bonn Challenge could generate approximately US\$ 85 billion annually for national and local economies.

Identifying and mobilizing the financial resources necessary for wide-scale restoration are likely to pose a major challenge. Public funding from national governments for restoration of degraded lands is very limited and unlikely to increase significantly in the near future, unless new compelling arguments are made about the long-term cost effectiveness of sustainable restoration work. A serious effort is required to document cases where restoration is paying off, both in ecosystem services in the long term and in financial returns in the short to medium term. Documenting cases of financial returns generated from FLR work will be important in creating interest in and opportunities for increased private-sector investment.

Financial incentives should be balanced with long-term environmental, socio-economic and culturally appropriate objectives in order for FLR efforts to be fully compatible with sustainable development principles and to address economic, environmental and social concerns in a balanced way. Innovative business models exist (see article 4.6); these can inform and inspire local communities, cooperatives, entrepreneurs, small and medium enterprises and private companies.

FAO and FLR

The Food and Agriculture Organization of the United Nations (FAO) is a specialized agency whose goals include eliminating hunger and poverty and the sustainable management and use of natural resources. FAO has a long history of assisting countries with projects that support sustainable land use. As a member of the GPFLR, and in support of the Bonn Challenge and the Aichi Targets, FAO has established the Forest and Landscape Restoration Mechanism.³ The mechanism focuses support for and scales up FLR work at the country level. It will facilitate a process in selected countries to provide support for improving the enabling environment, institutional arrangements, organizational and technical capacity and other concerns related to designing, planning and implementing a large-scale and comprehensive FLR programme.

The FLR Mechanism will contribute to meeting the Bonn Challenge and the Aichi Targets at the country level in four ways:

- facilitating a multi-stakeholder process in selected countries,⁴ mobilizing key actors from government, civil society, private sector and the international community, to define needs and opportunities for FLR and identify key FLR players. Where deemed appropriate by national authorities the process would lead to a national FLR plan that includes areas for both wide-scale and mosaic restoration, the potential roles and responsibilities of all actors, capacity development needs, financial resources and technical support required and a resource mobilization strategy. The plan would need to take into full consideration ongoing and planned FLR efforts occurring in a variety of sectors (forestry, agriculture, rangeland, etc.) and in the context of different processes⁵ and incorporate them to avoid overlap and duplication. Direct support to country processes is planned to begin by early 2015, depending on the availability of resources;
- developing, compiling and disseminating tools and best practices related to FLR, taking into account existing related efforts (e.g., on land-use planning, community participation, genetic resources, biodiversity conservation, protection from pests and disease, fire management, water and soil conservation, landscape values);
- supporting the establishment of pilot projects to demonstrate viable technologies and approaches and help broker new large-scale projects and programmes with national, multilateral and bilateral donors and the private sector; and
- supporting quality control of well-established FLR efforts to ensure compliance with accepted guidelines and standards.

The roles and responsibilities of all participants will need to be agreed to as part of a process of comprehensive discussions. No “blueprint” of how to best organize, coordinate and implement FLR will be promoted; the process within each country will need to be tailored to its specific institutional and biophysical context. Successes and failures will be reviewed and used as the basis for moving the process forward in each country.

The global level

At the global level, the FLR Mechanism will support the development of guidelines and standards for the establishment of baseline situations and the monitoring, measurement, reporting and verification of successful restoration efforts. This will be done in full collaboration with GPFLR and interested countries and will contribute to national and international reporting obligations.

The mechanism will identify and make available to countries and implementing agencies information about sources of funding for FLR, and will inform financial and donor institutions about opportunities for funding FLR. A crucial function will be to ensure that FLR becomes a more integral part of budget allocations of key international financial institutions through closer partnership and collaboration.

It will also contribute to the more effective embedding of and reporting on FLR actions in global and regional commitments and processes, especially those related to multilateral environmental agreements such as the United Nations Convention to Combat Desertification, the CBD and the United Nations Framework Convention on Climate Change.

The regional level

In order to support countries in their efforts to achieve the Aichi Targets related to ecosystem conservation and restoration, the CBD Secretariat has organized a series of regional capacity-building workshops for biodiversity and protected-area specialists from CBD member countries. The workshops provided technical information and allowed participants to share experiences with approaches, technologies, economic considerations and other factors.

FAO has partnered with the CBD Secretariat to support the participation of representatives of other land-use sectors, mainly forestry agencies, in order to broaden the discussion on landscape restoration.

The results are promising. A number of countries now incorporate restoration concerns more fully into planning tools such as national biodiversity strategies and action plans. The workshops are setting the stage for a broader multi-sectoral discussion at the country level that will explore how to move forward with more detailed planning for and implementation of FLR. Discussions are being held about the potential support that could be provided by FAO through its FLR Mechanism, in collaboration with other GPFLR members and related institutions.

Conclusions

The recent increased visibility of and political support to FLR, combined with new efforts to refocus priorities in international organizations and governments, are creating unprecedented opportunities to initiate large-scale programmes. These could have a significant impact on land restoration and the many associated benefits that would follow, in terms of both improved ecosystem services and increased land productivity. Urgent action is now needed at the country level in order to implement FLR. Key to these efforts being successful are approaches that connect — in an effective and ongoing manner — the various sectors and institutions associated with restoration work. A process is needed that addresses the issues in a comprehensive manner and leads to action in a wide variety of areas and on issues as diverse as legal frameworks, technology innovation, participatory approaches and stakeholder involvement and research needs.

The Forest and Landscape Restoration Mechanism builds on FAO's advantages as a United Nations agency with expertise and experience in several of the land-use sectors that are key to FLR and its extensive network of country, sub-regional and regional offices. Working closely with other GPFLR partners and related institutions to support countries in the planning and implementation of FLR work could contribute significantly to meeting or surpassing the targets set by the Bonn Challenge and Aichi Biodiversity Targets.

Endnotes

1. It is significant that the restoration of degraded land was one of the most important issues recognized by the public during the Rio+20 Conference held in 2012 in Rio de Janeiro.
2. They include the U.S., Rwanda, Costa Rica, Ecuador and the Atlantic Forest Restoration Pact, a consortium of local governments, NGOs and land-owners in the Atlantic Forest region of Brazil (see article 4.10).
3. The mechanism was officially launched in June 2014 during the 22nd Session of the FAO Committee on Forestry.
4. The selection of countries will depend on a variety of criteria, including level of political and financial commitment to FLR by government (e.g., where there is an existing pledge to the Bonn Challenge), existence of ongoing or planned programmes, projects or activities that would facilitate or complement FLR Mechanism support, existing means and capacity of supporting institutions, etc.).
5. The main environmental conventions all include planning processes, such as the UNCCD National Action Programme (NAP), the UNFCCC National Adaptation Programme of Action (NAPA) and the CBD National Biodiversity Strategy and Action Plan (NBSAP).

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