About 30% of global forest cover has been cleared and a further 20% degraded to date. Deforestation is the second leading cause and currently accounts for 24% of total greenhouse gas emissions, more than the entire global transportation sector.1 Landscape degradation through human activities negatively impacts the well-being of at least 3.2 billion people, and costs more than 10% of annual global gross product in loss of biodiversity and ecosystem services.2 Forest and land degradation also increases competition for scarce resources and contributes to human migration, both of which can lead to increased conflict.

Full achievement of the Sustainable Development Goals (SDGs) is only possible through urgent, concerted and effective action to avoid and reduce land degradation and promote restoration, bringing positive impacts across all dimensions of development. The inherent dynamic interconnections between the Earth’s land systems, climate and human societies mean that efforts to address land degradation and restore landscapes have multiplicative positive benefits. Restored forests and landscapes increase food and water security, sequester carbon, enhance adaptability and resilience to climate change, and minimise the risks associated with conflicts over natural resources and large-scale migration. The social returns of taking action on restoration at a global level is estimated at US$ 5 for every $ 1 invested in restoring degraded land.3 These facts represent an excellent investment opportunity for both developed and developing countries. Reversing land degradation and halting deforestation through restoration is possible.

The SDGs envision the transformation needed to secure the rights and future of people across the world and emphasise that healthy, stable ecosystems are a critical part of this. As shown in the infographic that follows, the landscape-scale restoration of degraded lands and forests is intrinsically interlinked with many SDGs.
Countries participating in the High-Level Political Forum on the SDGs noted the need to accelerate transformative actions. This included: restoring the productivity of degraded lands through coordination and planning across sectors, policy coherence and harmonisation of national strategies and plans, the use of participatory frameworks, enabling policies to provide conditions for private sector investment, and the establishment of partnerships. Many participants urged that synergies between SDGs be leveraged, focussing on areas of critical trade-offs. When planned at the landscape scale, restoration strategies are able to balance often competing objectives of different land users and stakeholders and trigger improvements in vertical and horizontal coordination.

Rising populations and incomes, climate change, and dwindling natural resources make it imperative that our work to bring about sustainable development complements conventional conservation strategies by making better use of degraded resources. As described below, restoration is a critical piece of this work. From bringing back degraded lands into production, to increasing the productivity of working lands, to fortifying the natural ecological processes that underpin provision of clean air, food and water – restoration brings the SDGs within reach.

Forest landscape restoration (FLR), an integrated approach that advances the SDGs

**FLR is the process of regaining ecological functionality and enhancing human well-being across large-scale degraded and deforested areas comprising overlapping ecological, social and economic activities and values. Successful FLR is forward-looking and dynamic, focussing on strengthening the resilience of landscapes and creating future options to enhance and further optimise ecosystem goods and services as societal needs change or new challenges arise.**

Restoring forests and landscapes is more than just planting trees – a restored landscape could include naturally regenerated areas, agroforestry, on-farm trees, mangroves, protected areas, plantings of trees and other woody plants like bamboo, and more. Restoration takes place through an active process that allows the integration of various sectors, plans, and programmes, bringing local communities and other stakeholders together to identify and implement appropriate restoration activities.

**FLR helps to identify synergies and address critical trade-offs leading to the achievement of SDGs**

The FLR approach fosters synergies between forest ecosystems and water, energy sources, food systems (including food in connection with human health and well-being), green growth and governance. By assessing a whole landscape in the context of development priorities, the FLR approach addresses the multiple and competing demands for land use and management that often lead to degradation and deforestation. It offers options to resolve trade-offs, and ensures a balance between economic, social and environmental benefits from land. Building multiple-use landscapes proves that it is possible to provide sustainable sources of food and energy products as part of strategies where forest conservation, restoration of degraded areas, and increased trees in landscapes are considered as the means to fulfill these demands.

**Implementing FLR reinforces cross-sectoral coordination and improves governance**

FLR fosters coordination and cooperation across sectors and from local to national levels. It enables dialogue and coordination opportunities where it is possible to identify synergies, joint implementation pathways, and partnerships within different government sectors and actors that are engaged in the same landscape.

Governments and stakeholders benefit from the potential of complementary and interconnected interventions, which increases efficiency in the use of resources and capacities, and multiplies impacts. FLR can catalyse action at multiple scales and increases ownership by stakeholders, an essential component of mainstreaming restoration priorities across sectors. At the global scale, this allows for synergies between different multilateral agreements on climate, biodiversity and development.

**Mainstreaming FLR approaches within national sustainable development agendas catalyses the transformational potential of the forest and land use sector for the SDGs**

FLR can be an innovative approach for countries to boost the impact of sustainable land and forest management as a pillar of their sustainable development agendas. In El Salvador, the National Strategy for Restoration of Ecosystems and Landscapes (EN-REP) and National Action Plan for Ecosystems and Landscapes (PA-REP) are part of the country’s vision to improve socio-economic resilience that articulates climate change, disaster risk reduction, food security and biodiversity conservation and management priorities. Malawi’s National Forest Landscape Restoration Strategy (NFLRS) addresses the persistent challenges of food insecurity, lack of income generating activities, declining soil fertility, deforestation, poor water quality and availability, and vulnerability to climate change and natural disasters such as drought and floods.

Several additional national and jurisdictional examples of linkages created between FLR and the SDGs exist, many of them as a result of policy design and implementation based on the application of the Restoration Opportunities Assessment Methodology (ROAM). The progress that some countries have made to achieve their restoration targets is being captured by the Bonn Challenge Barometer of Progress.

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7 UNEP/GRID/SSBTA/20/INF/41

8 For more information visit https://bit.ly/2UkLowx

9 For more information on countries plans and ambition in implementing FLR at scale visit https://infoflr.org/countries

10 For the 2018 Bonn Challenge Barometer report visit https://infoflr.org/bonn-challenge-barometer

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Restoring landscapes for a sustainable future

Forest landscape restoration contributions to the SDGs can be grouped by the different benefits provided:

- Improved livelihoods, economic opportunities and jobs
- Climate change mitigation and adaptation
- Water security and healthy ecosystems
- Gender equality and empowerment
- Food security and health benefits
- Policy coherence and partnerships
- Sustainable supply of forest-based products for energy, consumption and production
- Improved livelihoods, economic opportunities and jobs
A closer look at the interlinkages between FLR and specific SDGs, and successful examples

Improved livelihoods, economic opportunities and jobs (SDGs 1, 8)

Restoring ecosystems and natural resources generates diverse income opportunities within the forestry and agriculture sectors, and can make a substantial contribution to reducing poverty, particularly for rural communities. (SDG 1.2, 1.5, 1.A, 1.B)

Once under heavy degradation, China’s restored Loess Plateau supported the livelihoods of communities in four of China’s poorest provinces – Shanxi, Shaanxi, Gansu, and Inner Mongolia Autonomous Region, and lifted more than 2.5 million people out of poverty.11

Through restoration interventions such as erosion control and sediment retention, coupled with sustainable farming methods and replanting, farmers’ average income doubled from US$ 70 to $ 200 per year, per capita grain output increased from 365 kg. to 591 kg. per year and the employment rate increased from 70 to 87%.

Restoration can drive the creation of new businesses and markets that create additional income-generating activities in rural economies. (SDG 6.1, 8.3, 8.6)

Case studies across the world indicate that FLR programmes create thousands of green jobs each year and generate millions in local labour income. For instance, in Uncompahgre Plateau in western Colorado, U.S.A, the Collaborative Forest Landscape Restoration (CFLR) Programme has provided 443 full-time and 827 part-time jobs and generated $28 million in labour income during 2010-2017.12 Since 2010, restoring 73,723 ha. in El Salvador has created 12,777 total jobs.13

Sustainable supply of forest-based products for energy, consumption and production (SDGs 7, 12)

Unsustainable harvesting of fuelwood is a major cause of deforestation and forest degradation. Reducing dependency on fuelwood needs to be coupled with sustainable forest management and FLR, which can reduce deforestation and degradation rates. (SDG 7.1)

In sub-Saharan Africa, landscape restoration interventions that included the establishment of tree-based bio-energy systems have increased the sustainable supply of energy to households for cooking and heating.14 In Madagascar, the establishment of productive forests for wood energy is benefitting 3,000 households and has protected around 50,000 ha. of natural forests.15

Twenty-seven percent of deforestation is attributed to land use change for commodity production.16 The adoption of restoration strategies in food and commodity systems provides a profitable and sustainable pathway to deforestation-free supply chain development. (SDG 12.1, 12.2, 12.6)

Food security and health benefits (SDGs 2, 3)

The productivity and resiliency of food systems are strengthened through watershed protection, erosion control, agroforestry, tree management for NTFP, and other FLR strategies. Moreover, restoring degraded agricultural lands can reduce the number of malnourished children by 3 - 6 million while increasing yields and productivity of maize, rice and wheat between 2 to 10%.17

Case studies from Burkina Faso, Ghana, Ethiopia, Brazil, Guatemala and Viet Nam show that FLR increases land productivity and water availability and generates additional income and nutritious food for smallholder farmers and communities.20 In Burundi, 9,600 households adopted shade-growing coffee techniques as part of restoration strategies that have improved soil fertility, diversified farm products, and enhanced income and food security.21

Direct benefits from improved tree cover (medicines and fuelwood) and enhanced tree systems that provide better water access are often key resources for maintaining good health, especially in forest dependent communities (SDG 3.2, 3.3)

Restored forests supply herbal medicines, such as agroforestry parklands that provide traditional medicines to rural poor.22

Water security and healthy ecosystems (SDGs 6, 15)

Restored forests and landscapes can enhance both the provision and quality of water, and improve the resilience of water systems in areas prone to flooding and erosion. (SDG 6.5, 6.6, 6.B)

Farmers in Brazil are restoring 3,000 ha. of farmland through Payment for Ecosystem Services (PES) schemes and protecting drinking water supplies to Sao Paulo.23 In Guatemala, by protecting and restoring water-related ecosystems in the sub-basins of the

References

Climate change mitigation and adaptation (SDG 13)

Thirty percent of the climate change mitigation solution needed by 2030 involves restoration, conservation, and sustainable management of terrestrial ecosystems. FLR outcomes help mitigate climate change by reducing carbon emissions and sequestering CO2.

In the U.S., efforts to restore 404,685 ha. in the Lower Mississippi River basin will reduce 200,000 metric tons of carbon emissions, equivalent to 2% of U.S. carbon emissions.

Restoration activities such as agroforestry practices have been used in the Sahel region to enhance the resilience of agricultural systems against adverse impacts of rainfall variability and shifting weather patterns under climate extremes.

Xayá and Pixcayá Rivers, FLR outcomes benefited 150 families directly, with indirect benefits to 500 families, by improving water supply for household consumption, irrigation and hydropower generation.

Gender equality and empowerment (SDG 5)

Women play a key role in natural resource use and management, and their actions influence the outlook of forests and landscapes. Gender equality and equity are matters of fundamental human rights and social justice, as well as a pre-condition for sustainable development.

Policy coherence and partnerships (SDG 17)

Partnerships for FLR have emerged at all levels and are playing a key role in scaling up restoration ambition and implementation. For example, the Global Partnership on Forest and Landscape Restoration (GPFRL) has fostered collaborative action to drive FLR globally since 2003.

Gender-responsive FLR programming brought women to the forefront of forest conservation and restoration efforts in Brazil, Uganda, and Armenia. In Armenia, FLR interventions increased income opportunities and fuelwood supplies for forest dependent communities, particularly vulnerable groups including women-headed households and the elderly.

In Uganda, the FLR approach provided a framework to enhance gender equality and women's empowerment in natural resources management.

Gender-responsive FLR implementation also addresses inequality and tenure issues as the barriers to FLR implementation. For example, women are actively engaged in restoration along Cameroon's equatorial coast which in some cases has resulted in strengthened tenure security.


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Policy coherence and partnerships (SDG 17)

Embarking on FLR efforts will address the different socio-economic, environmental and governance aspects that operate within complex landscapes. By its very definition, FLR is participatory. Hence it builds and reinforces connections and interactions between various land uses and the multiple sectors, stakeholders and policies, at national and subnational levels, that manage and influence these multifunctional landscapes. By involving stakeholders and actors at all levels and sectors and building an articulated vision for integrated land use planning and management, FLR can help generate coherence for the implementation of different policies by identifying synergies and addressing trade-offs in policy design and implementation.


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Reinforcing progress on the SDGs by scaling up FLR

Demonstrate leadership and commitment
Political or administrative leaders are important to catalyse action and facilitate the mainstreaming of FLR in in-country development policies. Once they have stepped forward to demonstrate leadership and commitment, which attracts domestic and international attention to a country’s landscape restoration potential, regional and international partner organisations are able to help mobilise support for fundraising, capacity-development, and implementation of a country’s landscape restoration goal.

Generate institutional ownership and cross-sectoral coordination on FLR
Although demonstrations of political will are fundamental to jump-start action on FLR, sustained engagement is necessary. Arrangements for designing and implementing landscape restoration programmes by their very nature need to be large, diverse, and representative of the diverse sectors and interests affected. This includes the engagement of a range of actors involved in policy, regulatory, and governance streams, which can also minimise risks associated with political turnover. Many countries, such as Burundi and Mexico, are already developing cross-sectoral cooperation arrangements as a result of utilising the FLR approach, involving complementary agendas such as climate change mitigation, adaptation and resilience, rural development, biodiversity, desertification, among others.

Unlock public incentives to facilitate public and private investments
There are already good models for pioneering public investment to kick-start FLR implementation. For example, the governments of Rwanda and Guatemala have designed and implemented public investment packages of incentives for FLR coupled with supportive regulatory frameworks and clear legal arrangements for land tenure and management. This has created the necessary enabling environment for private sector investments. Initial financing resources for building technical capacities and addressing enabling conditions can also be secured from donor countries, international development banks, or international funds like the Green Climate Fund (GCF) and the Global Environmental Facility (GEF). However, to make financing more suitable for improved forest and land use management approaches such as FLR, countries need to build on accrued domestic finance and leveraged public finance to attract additional private sector participation.

Public sector leaders both in administrative and political positions are encouraged to optimise the contribution of FLR to domestic development agendas by establishing or fostering the country’s political commitment; for example, by making a pledge to the Bonn Challenge and embedding FLR in their SDG action plans. This can be preceded or followed by an assessment of FLR potential, using ROAM for instance, in order to identify, confirm or expand the scope of the country’s ambition.

Decision makers should be encouraged to adopt landscape approaches to realise the potential of healthy forests and landscapes. Collaborative institutional frameworks and participatory frameworks should be developed in order to ensure continuous engagement from multiple stakeholders and sectors in both the design and implementation of FLR-related policies and strategies.

Governments should create or develop enabling public policy instruments, so that public incentives and programmes for restoration are well-aligned with national or subnational objectives and policies for green growth and rural development. This will facilitate synergies and coordination between private investors, financing agencies and supporting actors in civil society and local communities to improve land use and production patterns.

46 See examples on the following hyperlinks: Yucatan Peninsula in Mexico, El Salvador, Guatemala, Malawi, and Madagascar.
47 Scherr, Sara et. al, op. cit.
Start a conversation on forest landscape restoration, the Bonn Challenge, and SDGs by reaching out to our Forest Conservation Programme.