National Policy Guiding Principles for Forest Landscape Restoration
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Supporting countries to deliver on their Bonn Challenge commitments within
the UN Decade on Ecosystem Restoration 2021-2030

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
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Cover photo: FLR activities in Tashkent region. Photo by A.Zakhadullaev
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<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
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<tr>
<td>COFO</td>
<td>Committee on Forestry</td>
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<td>COP26</td>
<td>26th Conference of the Parties to the UN Framework Convention on Climate Change</td>
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<tr>
<td>ECCA30</td>
<td>Europe, the Caucasus and Central Asia restoration by 2030</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EU</td>
<td>European Union</td>
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<td>EUR</td>
<td>Euro</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FLR</td>
<td>Forest Landscape Restoration</td>
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<td>FLRM</td>
<td>Forest and Landscape Restoration Mechanism</td>
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<td>GEF</td>
<td>Global Environment Facility</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>GPFLR</td>
<td>Global Partnership on Forest and Landscape Restoration</td>
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<td>ha</td>
<td>Hectare</td>
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<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>NDC</td>
<td>Nationally Determined Contributions</td>
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<td>NPGP</td>
<td>National Policy Guiding Principles for Forest Landscape Restoration</td>
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<td>ROAM</td>
<td>Restoration Opportunities Assessment Methodology (IUCN)</td>
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<td>SDGs</td>
<td>United Nations Sustainable Development Goals</td>
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<td>SWOT</td>
<td>Strengths-Weaknesses-Opportunities-Threats analysis</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UN Decade</td>
<td>United Nations Decade on Ecosystem Restoration</td>
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<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>USD</td>
<td>United States Dollars</td>
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<td>WRI</td>
<td>World Resources Institute</td>
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BACKGROUND

Despite a plethora of tools and trainings available for practitioners and policymakers in the realm of forest landscape restoration (FLR), there is a lack of guidance on creating a favourable enabling policy environment for successful and sustainable FLR interventions. The National Policy Guiding Principles (NPGP) outlined in this document have been developed to support such policy development. In light of the global commitments pledged under the Bonn Challenge, such support could be beneficial in order to increase the success of countries' ongoing restoration efforts.

The document has been developed as a tool for national forest authorities engaged in FLR, and aims to support them in identifying and adapting their national FLR-related policies, strategies and laws according to available best practice and evidence. The NPGP are composed of thematic and cross-cutting principles, which contain basic ideas or rules explaining how FLR should work (see Chapters 4 and 5). Each principle is introduced by a rationale, followed by a set of proposed criteria (i.e., the requirement that must be met to consider that the principle is applied), and a short description of the expected benefits.
1. DEFINITION OF TERMS

1.1 Forest degradation

There are more than 50 definitions of forest degradation. For the purpose of this tool, forest degradation is understood according to the FAO definition: “forest degradation is the reduction of the capacity of a forest to provide goods and sociocultural and environmental services. It involves a change process that negatively affects the characteristics of a forest (e.g., growing stock and biomass, carbon stock, biodiversity, soils, and aesthetic values), resulting in a decline in the provision of goods and services. This change process is caused by disturbances (although not all disturbances cause degradation), which can vary in extent, severity, quality, origin, and frequency. Disturbances may be natural (e.g., fire, storms, drought, pests and diseases), or human-induced (e.g., unsustainable logging, invasive non-native – ‘alien’ – species, road construction, mining, shifting cultivation, hunting and grazing), or a combination of both natural and human-induced. Human-induced disturbance may be intentional, such as that caused by logging or grazing, or it may be unintentional, such as that caused by the spread of an invasive alien species. There are also indirect or underlying reasons for forest degradation, such as poverty, inappropriate policies, and unclear tenure rights”.

1.2 Forest landscape restoration

FAO refers to FLR as “concept […] to restore a range of forest functions at the landscape level. It includes actions to strengthen the resilience and ecological integrity of landscapes with the participation of local communities. FLR is an integrating framework that can be applied across a range of land uses to ensure that key ecosystem goods and services are available for future generations and deal effectively with the uncertainties of climatic, economic, and social change. FLR restores functionality and productivity to degraded lands and forests. Trees in agricultural landscapes can boost food production and resilience. Forests and trees mitigate climate change by sequestering carbon”.

The Global Partnership on Forest Landscape Restoration (GPFLR) gives a similar definition and specifies that FLR can be conducted in both degraded and deforested landscapes.

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4. “Forest and landscape restoration (FLR) is defined as a process that aims to regain ecological functionality and enhance human well-being in deforested or degraded landscapes” https://www.forestlandscaperestoration.org/our-approach/
2. MAIN FRAMEWORKS AND TOOLS IN SUPPORT OF FOREST LANDSCAPE RESTORATION

2.1 Frameworks

2.1.1 The Sustainable Development Goals
The United Nations Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. The 17 Goals were adopted by all United Nations Member States in 2015, as part of the 2030 Agenda for Sustainable Development, which set out a 15-year plan to achieve them. Goal 15 “Life on Land” is of particular importance in the context of forest landscape restoration. Six targets under Goal 15 are directly relevant to FLR.

**Target 15.1** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

**Target 15.2** By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

**Target 15.3** By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

**Target 15.4** By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

**Target 15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

**Target 15.6** Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.

2.1.2 The United Nations Decade on Ecosystem Restoration
The UN Decade on Ecosystem Restoration (UN Decade) is a rallying call for the protection and revival of ecosystems all around the world, for the benefit of people and nature. Launched in 2021, it aims to halt the degradation of ecosystems and to restore them to achieve global goals. The UN Decade promotes healthy ecosystems to enhance people’s livelihoods, counteract climate change and stop the collapse of biodiversity.

The UN Decade is led by the United Nations Environment Programme (UNEP) and FAO. The UN Decade objective is to build a strong, broad-based global movement to ramp up restoration and put the world on track for a sustainable future. That includes building political momentum for restoration as well as thousands of initiatives on the ground.

Through communications, events and a dedicated web platform, the UN Decade is providing a hub for everyone interested in restoration to find projects, partners, funding, and the knowledge they need to make their restoration efforts a success.

2.1.3 Aichi Biodiversity Target 15
Under the Convention on Biological Diversity (CBD) Strategic Plan 2011 – 2020, a set of 5 strategic goals and 20 targets, called the Aichi Targets, have been defined. Restoration is a key element of Target 15: “by 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 % of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification” The CBD is currently developing a Post-2020 Global Biodiversity Framework, which is set to be adopted during COP-15 in autumn 2022.

2.1.4 The Bonn Challenge
The Bonn Challenge is a global effort to bring 150 million hectares of deforested and degraded land into restoration by 2020 and 350 million hectares by 2030. It is an implementation vehicle for national priorities such as water and food security and rural development while contributing to the achievement of international climate change, biodiversity and land degradation commitments.
It was launched in 2011 by the Government of Germany and the International Union for Conservation of Nature (IUCN), and later endorsed and extended by the New York Declaration on Forests at the 2014 UN Climate Summit. The Bonn Challenge Secretariat is housed at IUCN.

2.1.5 ECCA30

ECCA30 seeks to bring 30 million hectares of degraded and deforested land in Europe, the Caucasus and Central Asia into restoration by 2030. It is a regional initiative to secure additional commitments and accelerate the implementation of the Bonn Challenge, the Land Degradation Neutrality and land and forest-based targets towards achieving the objectives of the Paris Agreement. It aims at facilitating access to technical and financial support and reinforcing regional cooperation and capacity exchange on forest landscape restoration. Further, it seeks to help countries receive international and regional recognition of their restoration ambitions connected to their domestic priorities and projects. This initiative is serviced jointly by the United Nations Economic Commission for Europe (UNECE), the Food and Agriculture Organization of the United Nations (FAO), the International Union for Conservation of Nature (IUCN), the World Resources Institute (WRI) and the World Bank (WB).

2.1.6 The UN New York Declaration on Forests

The New York Declaration on Forests, 2014, is a non-legally binding political declaration that grew out of dialogue among governments, companies, and civil society, spurred by the Secretary-General’s Climate Summit. For the first time, world leaders endorsed a global timeline to cut natural forest loss in half by 2020, and strive to end it by 2030. The Declaration is endorsed by 39 governments, some of the world’s biggest companies, and influential civil society and indigenous organizations.

In particular, the Declaration aims at restoring 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030.

2.1.7 The Glasgow Leaders’ Declaration on Forests and Land Use

During the 2021 Climate Change Conference (COP26), 141 countries, including Armenia, Georgia, Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan, signed the Glasgow Leaders’ Declaration on Forests and Land Use which commits them to eliminate forest loss by 2030 as part of their collective efforts to combat climate change. The Declaration is accompanied by some USD 19.2 billion in related funding commitments. Those signatories account for over 90% of global tree cover and more than 85% of the world’s primary tropical forests.

2.1.8 The Global Partnership on Forest and Landscape Restoration

The Global Partnership on Forest and Landscape Restoration (GPFLR) is a proactive global network that unites governments, organizations, academic and research institutions, communities and individuals under a common goal: to restore the world’s lost and degraded forests and their surrounding landscapes. The GPFLR does this by building support for FLR, creating a knowledge network to accelerate FLR efforts, and organizing FLR capacity development workshops.

2.2 Tools

2.2.1 A guide to the Restoration Opportunities Assessment Methodology (ROAM)

The Restoration Opportunities Assessment Methodology (ROAM) has been developed by IUCN and WRI, as a contribution to the GPFLR and the Bonn Challenge. It sets out methodologies for conducting national or subnational assessments of FLR potential, based on pilot national assessments conducted in Ghana, Mexico, and Rwanda. ROAM provides a flexible and affordable framework for countries to rapidly identify and analyse FLR potential and locate specific areas of opportunity.

2.2.2 Forest landscape restoration pathways to achieving the SDGs

This publication has been prepared by IUCN to illustrate how FLR, as an integrated approach, can advance the SDGs. The publication highlights the benefits of FLR in identifying synergies, in reinforcing cross-sectoral coordination and governance and, in catalyzing the transformational potential of the forest and land use sector for the SDGs. It provides links between FLR efforts and the SDGs and includes specific examples.

2.2.3 Gender-responsive restoration guidelines

FLR actions must identify gender gaps and biases to avoid exacerbating or reinforcing gender inequalities. In response

5 [https://iucn26.org/glasgow-leaders-declaration-on-forests-and-land-use/](https://iucn26.org/glasgow-leaders-declaration-on-forests-and-land-use/)
to this need, IUCN and WRI developed the "Gender-responsive restoration guidelines" to ensure the application of ROAM and the ensuing FLR implementation, including any policy uptake and land-use planning, is gender responsive. The Guidelines show how ROAM and FLR can promote actions that proactively improve the situation of whole communities through an inclusive, equitable and participatory approach, especially including those most excluded and marginalized (by gender, age, ethnicity, religion, etc.).

2.2.4 Biodiversity guidelines for forest landscape restoration opportunities assessments

Developed by IUCN to complement ROAM, the biodiversity guidelines for forest landscape restoration opportunities assessments are intended to provide more context, more resources and fresh perspectives to the ongoing global interaction between biodiversity conservation and forest landscape restoration. They do so in the context of the methodology used by dozens of countries and jurisdictions to help practitioners working on identifying and realizing their landscape restoration goals. They outline the importance of considering genes, species, and ecosystems in FLR assessments and in the resulting implementation strategies. They also demonstrate that increases in landscape biodiversity that are supportive of people within landscapes remain a critical outcome of successful forest landscape restoration.

2.2.5 The Road to Restoration, A Guide to Identifying Priorities and Indicators for Monitoring Forest and Landscape Restoration

The FAO and the World Resources Institute (WRI) developed this guide with the aim to help stakeholders set up a monitoring system tailored to their needs by identifying indicators and metrics to monitor progress towards their forest landscape restoration goals. It emphasizes the need to make choices and understand potential trade-offs and synergies when designing a restoration project.

2.2.6 Community organizing toolkit on ecosystem restoration

The IUCN has put together the "Community Organizing Toolkit on Ecosystem Restoration" to equip local actors, from individuals to NGOs looking to make lasting change in their region, with the tools, knowledge, and resources necessary to restore ecosystems in which they live and depend on, back to productive, and healthy spaces. This toolkit focuses on the importance of community organizing. It further offers guidance on the types of community-based projects that can be implemented, presents successful examples of community-organized restoration, and introduces users to numerous tools including online and financial resources.

2.2.7 The Forest and Landscape Restoration Mechanism

The FAO established the Forest and Landscape Restoration Mechanism (FLRM) during the 22nd Session of the Committee on Forestry (COFO) in June 2014. The FLRM aims at scaling-up, monitoring and reporting on FLR activities to contribute to the Bonn Challenge and Aichi Biodiversity targets. It helps to coordinate and facilitate the development and implementation of projects, programmes, and related activities in FAO member countries, in full collaboration with other key actors. The FLRM operates globally by developing financial intelligence functions (raising awareness on FLR and fundraising actions towards key donors), preparing guidelines and standards for baselines and verification of successful efforts and contributing to more effective reporting to the Rio Conventions.

Capacity development is an important component of the FLRM. Through a series of freely accessible e-learning courses, participants can advance their knowledge of forest and landscape restoration. The courses are closely aligned with the SDGs and FAO strategic programmes, and are peer reviewed by a wide range of experts to ensure content accuracy, quality, and coherence. Three courses are currently part of the portfolio:

- Introduction to forest and landscape restoration
- Monitoring forest and landscape restoration
- Sustainable financing of forest and landscape restoration

2.2.8 Knowledge sharing platform on FLR in the Caucasus and Central Asia

In 2022, the UNECE/FAO Joint Forestry and Timber Section developed an online knowledge platform specifically designed for the Caucasus and Central Asia (CCA) region. It contains three main types of knowledge resources:

- Global knowledge and tools on FLR, including a compilation of general information about FLR processes and knowledge adjusted to the regional context
- Knowledge on forests and the status and implementation of FLR in the CCA region
- A knowledge exchange hub for CCA countries to facilitate the circulation of information and to discuss ongoing FLR work
The platform also has a compendium of learning materials and useful resources about FLR, including global and regional training materials.

2.2.9 United Nations Decade Principles on Ecosystem Restoration

The UN Decade partners have engaged in a multi-stage process to develop 10 principles for ecosystem restoration. The principles are broadly based on the Ecosystem Approach and the Short-Term Action Plan for Ecosystem Restoration, both adopted by the Parties to the CBD; as well as IUCN’s Principles for Nature-Based Solutions, Principles for Ecosystem-Based Approaches, Principles for a Landscape Approach, Principles for Forest and Landscape Restoration; the Society for Ecological Restoration’s International Principles and Standards for the Practice of Ecological Restoration; the IUCN Commission on Ecosystem Management’s Rewilding Principles; and FAO’s Principles and Approaches for Sustainable Food and Agriculture, Agroecology, Sustainable Land Management and the Ecosystem Approach to Fisheries.

These 10 principles for ecosystem restoration were developed to guide the UN Decade. They principles include:

1) Global contribution;
2) Broad engagement;
3) Many types of activities;
4) Benefits to nature and people;
5) Addresses causes of degradation;
6) Knowledge integration;
7) Measurable goals,
8) Local and land/seascape contexts;
9) Monitoring and management;
10) Policy integration.
3. NATIONAL POLICY GUIDELINES PRINCIPLES FOR FOREST LANDSCAPE RESTORATION - Purpose and expected benefits

3.1 Purpose of the National Policy Guiding Principles

Forest landscape restoration to reverse acute and very visible land degradation processes is high on the international agenda, supported by global efforts of the United Nations Decade on Ecosystem Restoration. Land degradation—the deterioration or loss of the productive capacity of the soils for present and future—is a global challenge that affects everyone through food insecurity, higher food prices, climate change, environmental hazards, and the loss of biodiversity and ecosystem services.

Forest landscape restoration plays a major role in combating landscape degradation. Healthy forests contribute to the restoration of ecosystem services (e.g., biodiversity, soil, and water conservation) and to the productive functions of land for agriculture and related uses that provide food, energy, and other products and services for sustainable livelihoods.

Forest landscape restoration efforts are not new. Conservation, afforestation, and reforestation activities have been carried out for many years across the globe, although with mixed results. Lessons from the last two decades clearly show that an integrated approach, which takes into consideration the capacity and needs of all main stakeholders, needs to be adopted to successfully reverse the degradation of forest and other wooded lands on a large scale. Such an integrated approach, at the landscape level, encourages relevant cross-sectoral collaboration and enables the genuine participation of important local stakeholders, such as communities and the private sector, in restoration activities.

In the last decade, exhaustive guidelines and capacity-development programmes have been established to that end (see Chapter 2). They are based on best practices, latest knowledge, lessons learned and recommendations for implementation. They provide numerous and very useful references and guidance for FLR implementers. However, a supportive policy environment is a precondition for the efficient application of those tools.

An enabling policy environment is key to achieving FLR objectives and goals over the long term. Forest authorities engaged in restoration should identify and adapt their national FLR related policies, strategies and laws according to best practices, with a view to increasing the success of their restoration efforts and to achieving or even exceed their goals. So far, little guidance has been provided for the development of such policies and strategies.

In response to that need, the National Policy Guiding Principles (NPGP) are meant to provide a simple framework to guide forest policymakers in designing their FLR policy, with clear objectives and vision. This in turn will facilitate the development of national strategies for FLR implementation.

The NPGP are composed of 7 principles, i.e., basic ideas or rules explaining how FLR should work, and a set of cross-cutting principles. Each principle contains a rationale, followed by a set of proposed criteria (i.e., the requirements that must be met to consider that the principle is applied) and a short description of the expected benefits.
3.2 Expected benefits of applying the National Policy Guiding Principles

The NPGP are based on decades of experiences in the fields of forestry and forest landscape restoration. While the overall ambition of the NPGP is to support governments towards successful FLR at national and subregional levels, taking into account these principles and applying them to FLR is expected to generate more specific benefits such as:

1) Easy framework for streamlined policy and strategy development

The NPGP have been drafted for policymakers and their easy use and implementation. Once adopted by national authorities, NPGP will also contribute to streamlining FLR by identifying potential gaps and overlaps in related national landscape restoration policies. NPGP should, therefore, be instrumental in avoiding fragmentation of sometimes conflicting measures and, instead, be a catalyst for synergies for the achievement of FLR objectives.

2) Broad stakeholder support

It is expected that a national FLR policy based on the NPGP will result in FLR programmes and activities that are "consistent with a country's unique history, culture, resources and aspirations", transparent and, thus enable broader and sustainable stakeholders’ engagement. Stakeholder support and contributions are essential to achieve large-scale and sustainably restored forest landscapes. Stakeholders can have a significant multiplier effect on any FLR activities in which they will participate and for which they will feel responsible for their success. Applying the NPGP will generate, among stakeholders, a sense of ownership for FLR, which is a determining factor for sustainability.

3) Higher visibility

The NPGP include strong elements of monitoring, awareness sharing and knowledge management which will significantly increase the visibility of FLR implementation and benefits at national, regional, and global levels, thus setting in motion a virtuous circle that will continuously attract further support.

4) Increased funding opportunities

A clear and well-articulated FLR policy and strategy, based on the NPGP, will facilitate access to funding from donors who are looking for such integrated approaches that maximize the chance of success and thus, a positive return on investment.

5) Effective contributions to international commitments

Finally, successful FLR activities will greatly contribute to countries’ progress made towards attaining the SDGs and the commitments made under the NDCs to reduce greenhouse gas (GHG) emissions.

More detailed benefits are provided for each of the principles presented below.

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4. GUIDING PRINCIPLES

4.1 Address the root causes of degradation (principle 1)

**Rationale:** Planting trees is a relatively simple operation thanks to the vast know-how available. However, keeping planted seedlings alive can be very challenging. Failures of restoration attempts are multi-facetted, but generally reflect the insufficient understanding of root causes of forest landscape degradation. For any FLR activity to be successful and sustainable, it is of utmost importance that the root causes of degradation are identified and addressed. Only by understanding and removing the underlying socioeconomic, political and institutional causes that drive forest and land degradation can restoration efforts be successful, sustainable, and scalable. It is expected that a better understanding of the situation on the ground will guide the responsible forest administration to design appropriate restoration measures and propose adequate strategies to prevent degradation.

Problems of forest landscape degradation are, in most cases, well known and documented. They include the loss of forest areas, the decline of tree/woody vegetation density and variety, industrial pollution, increased erosion, and fire occurrence, etc. Although climate change can exacerbate these processes of degradation, the origins are clearly of anthropogenic nature and the result of unsustainable practices. While the identification of the root cause of a problem might seem to be straightforward, it is - in most cases - far more complex and with wide-ranging implications.

Too often there is confusion between the outcome of the root cause and the root cause itself. For instance, overharvesting of wood products is frequently pointed as one of the root causes of degradation. However, in reality, it might be the lack of incentives to manage sustainably the resources, because of unclear or conflictual rights or benefits’ sharing, which lead to illegal, destructive practices and overharvesting.

The identification of the root cause of forest landscape degradation can also be greatly facilitated by reviewing lessons learned of past and ongoing FLR initiatives (see Annex 2). In particular, the evaluation of partly failed or failed initiatives could point to root causes that were not foreseen at the planning stage but became apparent during implementation. This necessitates, however, that the assessment of these initiatives not only focus on the short-term establishment of tree and/or vegetation cover but also on the longer-term tree growth, environmental and socioeconomic outcomes.

Understanding the root cause of a problem requires the participation of all relevant stakeholders, including, in particular, those who are practicing unsustainable use of resources. It also involves recognizing the gender dimension of differential access to and use of forest resources. For this reason, great care should be taken in identifying all stakeholders. They can be primary, secondary, or key stakeholders with high or low importance and influence in the context of future FLR activities.

With an appropriate methodology, including all important stakeholders, root causes can generally be accurately identified by building a “problem tree” or a graphical representation of an existing problem, its causes and effects. The problem tree should provide a clear and shared understanding of the issues. Consequently, once the root causes are well identified, appropriate and effective measures can be formulated by building a “solution tree.” These corrective measures can be of legal and/or technical nature and will have the potential to considerably enhance the success rate of FLR activities.

**Criteria**

- Primary, secondary, key stakeholders identified and ranked according to their importance and influence (stakeholder matrix)
- Stakeholder participation strategy developed
- Past and ongoing FLR projects objectively assessed (longer-term sustainability of tree/vegetation cover, environmental and socioeconomic impacts), lessons from experience identified
- Climate change impact on restoring forest landscape taken into account (suitability of tree and shrubs species)
- Forest landscape degradation problem tree constructed
Barriers and root causes of forest landscape degradation identified
Solution tree constructed
Requirements for successful FLR identified

Expected benefits
- Sustainable FLR measures (root causes of degradation have been removed)
- High level of understanding and visibility of FLR initiatives
- Important stakeholders are supporting and contributing to FLR initiatives
- UN Decade principles 2, 3, 4 and 5 met

4.2 Provide supportive governance (principle 2)

**Rationale:** Forests and trees play essential roles in many landscapes, in particular dryland landscapes. Their health and capacity to provide goods and environmental benefits are influenced by many external factors. Therefore, an enabling policy and legal/regulatory environment is essential for the success and sustainability of FLR activities. FLR initiatives have, by definition, long-term implications. Trees and woody vegetation take many years to be firmly established, and soil restoration is a slow process. While in the initial years of an FLR activity the technical, human and financial requirements are high, long-term sustainability of these operations mostly depends on a supportive and enabling policy and legal environment. In some cases, policies, laws, and institutions need to be adapted to FLR requirements. Monitoring and evaluation during the analysis of the root causes of forest landscape degradation and/or during implementation of FLR will facilitate identification of those needs.

Further, trees, forests and forestry activities are often dealt with in relative isolation from other landscape components or development sectors that contribute to forest landscape degradation such as agriculture, energy, urban development, mining, or infrastructure. A landscape approach to management that integrates trees and forest management with other land uses is more likely to produce sustainable outcomes. Working at the landscape level implies the involvement of different sectors. An enabling governance system is key to well-functioning cross-sectoral coordination, regional collaboration and maintaining adequate funding.

**Criteria**
- A national FLR strategy is endorsed by the government
- Policy, legal and institutional barriers identified in the problem tree construction are adequately addressed and removed
- All non-forestry sectors that contribute to or are impacted by FLR are identified
- Intersectoral communication, coordination and collaboration established
- Sectors that contribute to forest landscape degradation such as agriculture, mining, infrastructures, urbanization, etc., have adopted preventive and/or mitigation measures
- An enabling environment for sustainable FLR funding and investment, from government, the private sector, international organizations, and other sources, is established
- Income generation mechanisms resulting from FLR are enabled
- Policy, legal and institutional frameworks for the continuous monitoring of FLR implementation are ensured
**Expected benefits**

- Successful and sustainable FLR
- High level of participation across relevant sectors
- Efficient FLR measures through coordinated efforts
- Updated, modernized governance system benefits beyond FLR
- UN Decade principles 1, 5 and 10 met

### 4.3 Develop a national FLR strategy (principle 3)

**Rationale:** Once the root causes and the drivers of degradation are well defined and understood, a national FLR strategy should be formulated to guide government and other main stakeholders’ actions to prevent further degradation and ultimately ensure the sustainability of FLR activities.

Developing strategies is part of a comprehensive planning process. Strategic planning\(^7\) may be defined as a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it. Strategic planning must address four fundamental questions:

1. **What are the objectives?**
2. **How can the objective be met?** (strategies)
3. **What is the blueprint for action?** (activities, budget)
4. **How to ensure that implementation is on track?** (monitoring & evaluation)

The first part of the strategic planning process is embedded in Principle 1 which provides information about location, extent, suitability, and desirability of areas for restoration (see principle 6 for prioritization of areas). It further identifies the issues to be addressed with consideration of not only biodiversity questions (e.g., connectivity and fragmentation) but also economic and social concerns (e.g., other land uses, land ownership, income generation, energy needs).

Once the objectives are set, a national FLR strategy should be developed which clearly outlines how barriers will be overcome. This includes defining the most realistic proposals to overcome these barriers, the major actions needed and the next steps to implement these actions. A national FLR plan will include a set of strategies that can be clustered in two categories, implementation strategies and functional strategies.

**Implementation strategies**

Implementation strategies are about technical pathways for successful FLR. A national FLR strategy will provide clarity on specific areas suitable for FLR and assigns priority based on feasibility, stakeholder engagement, availability of resources, complementarity, effectiveness, and sustainability.

Not all areas are suitable for FLR. Specifically, at the early stage, it is recommended that areas with best expected outcomes should be selected for a positive FLR dynamic. It is also important to set realistic and measurable goals.

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**Functional strategies**

Functional strategies are dealing with the required “software” to support FLR, such as governance, financing, staffing, capacity development, facilities and procurement strategies.

A national FLR strategy should be developed taking into consideration cross-sectoral cooperation, a landscape approach (identified in Principle 2) and resource and capacity gaps (identified in Principle 1).

Due to the cross-sectoral nature of FLR, strategies should also be integrated with other national priorities and processes (such as national development strategies, poverty-reduction strategies, land-use plans, infrastructure development and subsidy schemes).

A national FLR strategy, once endorsed by the government, will require the development of action plans to carry out FLR activities.

**Criteria**

- Areas that are deforested, degraded or are prone to degradation and deforestation are identified
- Areas with highest potential for successful FLR are prioritized
- An assessment of human and financial capacities available for FLR is completed, highlighting strengths, weaknesses, opportunities, and threats (SWOT)
- Based on the problem tree and on the FLR related assessment, a national FLR strategy is developed for ensuring effective and sustainable FLR measures
- Developed FLR strategy is embedded in national strategies and is clearly formalized in the national legal and administrative system

**Expected benefits**

- Successful and sustainable FLR
- Optimal and efficient allocation of human and financial resources for FLR
- Effective and transparent framework for FLR
- Clear framework to assess progress
- Clear roles and responsibilities of stakeholders encouraging their support and contribution
- UN Decade principles 1 to 10 met

**4.4 Encourage capacity development for FLR (principle 4)**

**Rationale:** Existing and often outdated approaches and technical knowledge might prevent successful FLR measures. In light of past experiences, today’s FLR requires a range of improved/new capacities to ensure better results. Two types of capacities can be identified: technical and functional capacities.

Technical capacities are required in all the broad areas of restoration, from soil-erosion control measures, water provision, nature-based restoration, tree nurseries, plantations, tree-seed centres, and assessment of restoration needs to the enabling of national, subnational, and local actors in carrying out the restoration of degraded lands.

Functional capacities are required to enable national, subnational, and local institutions to plan, lead, manage, monitor, evaluate and sustain improvements in restoration initiatives and degradation prevention strategies. The goal is to ensure that technical know-how is embodied in local systems and processes in a sustainable way.
National Policy Guiding Principles for Forest Landscape Restoration

Criteria related to technical capacities:
- Technical requirements for planned FLR identified
- Review and assessment of existing technical capacities at national, subnational, and local levels
- Knowledge gaps, if any, identified
- Capacity development, where needed, provided according to best practices

Criteria related to functional capacities
- Review and assessment of functional capacities at national, subnational, and local levels carried out
- Functional issues limiting FLR activities, if any, identified
- Institutional changes or reforms conducted wherever needed

Expected benefits
- Successful and sustainable FLR
- National technical and functional capacities up to date
- Recognized FLR expertise at national, regional, and global levels
- UN Decade principle 6 met

4.5 Raise awareness, educate and share knowledge (principle 5)

Rationale: Awareness raising, education and knowledge management are key to get informed support from main stakeholders but also from the general public for and beyond FLR activities. Awareness raising about FLR, and cross-cutting issues (such as environmental services, climate, soil, water, energy; biodiversity, community, food and forest products, local economy, job creation, poverty alleviation, culture) is mostly to inform direct stakeholders and the general public, and influence their attitudes, behaviours, and beliefs. Increased awareness of FLR initiatives and implementation will contribute to a better understanding of the need for FLR, the conditions required for its success and the expected environmental and socioeconomic benefits.

FLR education and knowledge management consists of creating, sharing, using and managing knowledge and information resources. In particular, knowledge management aims towards developing relevant training programmes and facilities, and disseminating good practices and lessons learned from FLR activities (see Annex 2). This information can be shared with a wide audience, such as policymakers, practitioners, and stakeholders (including communities, landowners), with a view to improve FLR implementation, support and upscaling.

Criteria
- The national FLR strategy is widely shared among stakeholders
- Benefits expected from FLR defined (environmental services, climate, soil, water, energy, biodiversity, community, food and product, local economy, job creation, poverty alleviation, culture)
- Incentives for stakeholders identified
- Awareness campaigns for the general public designed and suitable media identified
- National, subnational, and local awareness campaigns conducted prior, during and after FLR activities
- Piloting FLR implementation approaches/methodologies (knowledge creation)
- Knowledge sharing platforms (subnational, national, regional) identified or established
- FLR-related training programmes and facilities are developed
- Relevant education institutions are involved in knowledge sharing and management

**Expected benefits**
- Successful and sustainable FLR
- Broad support for FLR from all stakeholders and the general public
- Transparent FLR processes motivate upscaling
- Cutting-edge knowledge and skills on FLR available and disseminated
- UN Decade principles 2 and 6 met

### 4.6 Implement strategies for effective FLR (principle 6)

**Rationale:** Working at landscape level is a complex endeavour which needs to take into account many factors such as targeted areas for FLR, stakeholders’ involvement, capacities, cross-sectoral coordination, funding, sustainability, climate, etc. Therefore, decisions to conduct FLR must be strategic and prioritized to be successful (see Principle 3).

Successful FLR implementation will be the most visible outcome of a FLR initiative, e.g., the amount of forest areas restored, and therefore, deserves a specific principle to guide initial decision making. Based on a national FLR strategy, three main strategies for FLR implementation can be distinguished:

1) Protect and restore what exists
2) Restore forest landscape through planting, nature-based regeneration and other technical measures
3) Greening non-forest sectors in support of FLR

#### 4.6.1 Protect and restore what exists (sub-principle 6 a)

**Rationale:** Stopping ongoing degradation and protecting what exist should be the first action. It is also the most cost-effective measure. Often, for various reasons and because it is expected to be the most visible way to combat landscape degradation, FLR projects prioritize reforestation of bare forest land and even, sometimes, afforestation of desert lands at very high costs but resulting in mixed to poor results. Considerable resources are invested in these approaches with the risk of depriving the management of existing forest areas from these most needed resources with the consequence that these forest areas are left to continue degrading. Therefore, as a priority, human and financial capacities, should first be directed towards protecting and restoring existing forest areas.

**Criteria**

- Forest governance and management arrangements are implemented to halt deforestation, degradation and sustain restoration (supportive legal framework, involvement of stakeholders, mobilization of additional resources, etc.)
- Forest restoration measures conducted (controlled and sustainable use of forest products, promotion of natural regeneration, enrichment planting, etc.)
- Preventive measures against degradation designed and implemented (legal and/technical, e.g., erosion control, fire prevention, pest and disease control, sustainable agriculture, rangeland management, alternative energy)
Expected benefits
- Successful and sustainable FLR
- Healthy forest landscape stabilized
- Efficient use of available resources and capacities
- UN Decade principles 1 to 5 met

4.6.2 Restore forest landscape through planting, nature-based regeneration and other technical measures (sub-principle 6 b)

Rationale: Once existing forest landscapes are sustainably managed and “secured” and/or if the required capacities are available, heavily degraded forest landscape can be restored through assisted natural regeneration or the plantation of trees, shrubs, and other vegetation together with erosion control, fire prevention, pest and disease control measures wherever appropriate. Restoring such landscape can be very challenging and require substantial resources. Great care should be taken in ensuring that these restoration measures are in line with the national strategy, as a national strategy should provide a framework to ensure sustainability from an economic, social, and environmental point of view. For sites where previous experience was not satisfactory or no previous experience is available, it is highly recommended to pilot restoration before scaling-up.

Criteria
- Effectiveness of planned afforestation from the landscape perspective is analysed and relevant priorities are set
- Restoration is planned with a long-term perspective, in particular in areas with harsh conditions and natural succession patterns
- Plantations and assisted natural regeneration carried out
- Erosion control, fire prevention, pest and disease control measures taken
- An enabling environment to sustain restoration efforts (supportive legal framework, involvement of stakeholders, mobilization of additional resources, etc.) is in place

Expected benefits
- Successful and sustainable FLR
- High success rate in FLR on severely degraded lands
- Increased and sustainable forest landscape
- UN Decade principles 1 to 5 and 7 met

4.6.3 Greening non-forest sectors in support of FLR (sub-principle 6 c)

Rationale: Beyond the forest sector, other sectors such as agriculture, energy, urban development, mining, or infrastructure can play a significant role in contributing to FLR by alleviating or mitigating the negative impact they have on the landscape in general. Although these sectors do not necessarily contribute directly to FLR, they do involve land use. They can play a very important role in landscape restoration, either through their practices or by not affecting forest lands, which can, in turn, support and complement FLR efforts. It is therefore important to involve these sectors and get their support for the implementation of a national FLR strategy or a wider, overall national landscape restoration strategy. To that end, a tailored awareness-raising campaign (see Principle 5) targeting these sectors is likely to facilitate and encourage their full participation.
Criteria
- Active participation of relevant groups in intersectoral communication and collaboration established
- Possible contributions of relevant sectors to FLR identified and coordinated
- Commitments of relevant sectors in contributing to FLR established

i) Greening agriculture by alleviating drivers of forest landscape degradation resulting from agricultural practices

Rationale: Globally, agriculture continues to be the main driver of deforestation and forest degradation and the associated loss of forest biodiversity.

Criteria
- Landscape restoration measures on agricultural lands are implemented (improved irrigation, agro-forestry, wind breaks/shelterbelts, rangelands management, etc.)
- Connectivity/complementarity of wooded areas in the agriculture lands with other elements of landscape, in particular forested areas, is ensured
- Intensification of agriculture with nature-based practices

ii) Greening infrastructures investments

Rationale: The rapid development of infrastructures in many part of the world can lead to further forest and other landscapes degradation. If not adequately addressed, they could undermine other FLR efforts. To prevent such negative impacts, rigorous environmental impact assessments (EIA) and mitigation measures need to be in place for all infrastructure to meet agreed standards for GHG emissions, adaptation to climate change, biodiversity conservation, pollution abatement, resource management and integrated land use.

Criteria
- EIA carried out for any medium- to large scale infrastructure project
- Systematic inclusion of mitigation (restoration and greening) measures in any medium- to large scale infrastructure project
- Environmental sustainability standards developed for infrastructures
- Creation of sustainable green spaces promoted in areas occupied by infrastructure (e.g., for industry and transport) and their vicinity
- Connectivity/complementarity of wooded areas in urban and peri-urban lands with other types of landscapes, in particular forested areas, is ensured.

iii) Greening urban and peri-urban centres

Rationale: With the rapid development and expansion of urban and peri-urban centres, trees and forests are becoming increasingly vital components of healthy, liveable, and sustainable communities. Functioning urban ecosystems help clean our air and water and to cool urban heat islands. They also support our well-being by shielding us from floods and landslides and providing opportunities for recreation. In addition, urban and peri-urban forestry helps the urban population connect (or reconnect) with nature and with tree and forest ecosystems and, by doing so, contributes to maintaining the connection between urban and rural areas.

Criteria
- Promotion and creation of sustainable green spaces in urban and peri-urban areas
- Enabling urban planning and governance frameworks to foster the establishment of green spaces
Overall expected benefits from principle 6

- FLR success enhanced by the restoration and greening of other landscapes
- Comprehensive and coordinated efforts towards countrywide landscape restoration
- National commitments set out in the NDC are met
- Significant increase of environmental benefits from FLR
- UN Decade principles 1 to 10 met

4.7 Monitor and evaluate (principle 7)

**Rationale:** Poor monitoring prevents accountability and the possibility to learn from past experience, thus undermining the ability to understand the change processes and improve future FLR activities. It is therefore critical to put in place a multi-stakeholder, gender sensitive (see cross-cutting Principle 3) monitoring and evaluation system (M&E) right from the start. A multi-stakeholder approach will ensure a comprehensive and objective monitoring of FLR activities while simultaneously providing opportunities for shared M&E capacities with other national commitments such as NDC, biodiversity and SDG reporting. An efficient M&E will ensure transparency and provide evidence of progress, achievements and impact of FLR. It will enable updates and help develop the national FLR strategy. It will also encourage positive momentum, inspire replication, and transfer relevant knowledge through the communication of positive results and outcomes and corrective actions taken in response to possible negative results. M&E enable investors to see progress towards their investment goals and open possible additional funding opportunities.

**Criteria**

- Realistic, simple, and feasible, multi-stakeholder monitoring framework including biophysical, social, economic and governance measures established
- Gender-sensitive indicators, and data-collection methodology disaggregated by gender developed
- Baseline for monitoring FLR achievements established, and, wherever possible, linked and integrated (compatible) with existing forest-monitoring systems
- Indicators, metrics, and indicator framework defined
- National FLR strategy implementation is continuously monitored and feedback provided to policymakers and stakeholders in order to see progress and address issues of concern
- Regular M&E carried out and shared with all stakeholders

**Expected benefits**

- Successful and sustainable FLR
- Evidence of FLR impact provided, including on who benefitted, and on progress towards achieving national, regional, and international commitments.
- Enhanced trust in FLR and foster additional investments for scaling up
- Important contribution to national commitments regarding NDC, biodiversity, SDG reporting
- UN Decade principles 8 and 9 met
5. CROSS-CUTTING PRINCIPLES

While developing national FLR strategies with the help of the above-mentioned policy-guiding principles, some cross-cutting principles need to be reflected in these strategies to improve restoration outcomes and to maximize net gain for FLR and human health and well-being. Although not an exhaustive list, eight cross-cutting principles are briefly described hereunder:

- Build on existing commitments and partnerships
- Ensure a participatory approach
- Mainstream gender
- Address needs of people with disabilities
- Alleviate poverty
- Adapt to climate change
- Protect biodiversity
- Take a regional approach

5.1 Build on existing commitments and partnerships

In the last 10 years, an increased number of FLR related initiatives around the world are gaining pace as a nature-based solution to address the challenges of climate change. These experiences offer a great opportunity to identify best practices that can be applied to new FLR activities. At the same time, duplication and competition with existing processes and partnerships should be avoided. New FLR measures should seek alignment and coordination of forest landscape restoration work in the region by engaging relevant stakeholders and organizations in their implementation.

5.2 Ensure a participatory approach

A participatory approach is essential for the success of FLR. It will ensure that all stakeholders contribute to the development of a national FLR strategy and its implementation. Stakeholders’ participation will ensure that their propositions and concerns are taken into account. Through this approach, stakeholders will develop a sense of “ownership” of FLR initiatives, which will result in their strong support. This will contribute to long-lasting, sustainable, inclusive progress in FLR in the subregion. It should be noted, however, that the requirements for a truly participatory approach are often underestimated. A participatory approach that fully engages stakeholders requires capacities to develop a well-planned and rigorous methodology as well as allocate adequate resources to identify and engage stakeholders and create conditions for their just and long-term engagement.

5.3 Mainstream gender

FLR activities should provide equal opportunities for women and men. They both play a crucial role in ecosystem conservation and restoration. Given the lack of women’s participation at all levels of governance, from FLR policymaking to implementation, their full inclusion needs to be stressed and encouraged. This is important for responding to the immediate needs of the rural population.

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8 The cross-cutting principles presented here are largely taken from the cross-cutting principles identified in the "Draft Strategy for landscape restoration and greening the infrastructure of the Caucasus and Central Asia" presented at the seventy-eighth session of the Committee on Forests and the Forest Industry, Geneva, 4-6 November 2020. Note by the Secretariat: ECE/TIM/2020/3
as well as for ensuring equitable access to resources and benefit sharing. Based on the “Gender-responsive restoration guidelines”, published by IUCN, there are several gender-responsive actions that can be undertaken in the subregion: (a) conducting a gender analysis to provide insights into gender roles; (b) involving women in “greening” decision making; (c) improving women’s rights to land and natural resources; (d) creating partnerships and alliances with regional and national restoration networks; (e) developing gender-sensitive indicators and collecting data disaggregated by gender; (f) developing gender-responsive polices on land and forest management at the subnational and national levels; (g) exchanging knowledge on key gender issues, strategies and outcomes between countries in the region. Gender gaps and biases should be identified, whenever they exist, and addressed.

5.4 Address needs of people with disabilities

Wherever relevant, FLR work that aims to improve citizens’ access to green areas for recreation and eco-tourism should consider, and if required, address the needs of people with disabilities. Such measures include the involvement of relevant stakeholders, representing people with disabilities, in the planning phase, improved communications and training, and implementation, where relevant.

5.5 Alleviate poverty

The rural poor in many countries are highly dependent on forests and are the most affected by forest landscape degradation. So far, they only benefit marginally from forest markets and forest conservation efforts. Yet, forest landscape restoration will not be achieved in the long run without the support and involvement of local communities.

FLR represents a significant opportunity to contribute to poverty alleviation by enhancing the livelihoods of some of the countries’ poorest people. This can be achieved not only by restoring forest landscapes, but also through community-based solutions that allow the rural poor to take advantage of one of their most important natural assets. FLR has the potential to open up new opportunities for community-based forest management, agroforestry, forest enterprises, enhancement of wood and non-wood products, and eco-tourism. FLR can further promote the establishment of forest resources on small-scale local producers’ own farmland, thus generating market opportunities.

To demonstrate the potential of FLR measures contributing to poverty alleviation, a social cost-benefit analysis, considering the full spectrum of costs and benefits of FLR, including social and environmental effects, should be integrated as part of FLR knowledge management (see Principle 5).

5.6 Adapt to climate change

An ultimate and long-term goal of FLR across the globe is to mitigate and adapt to climate change, thereby restoring ecological functions across degraded landscapes. FLR is seen as a necessity to attain this goal, but its beneficial impact will only be measurable in the long-term future due to the relatively slow growth rate of forest vegetation, and to the gradual response of the climate system.

Therefore, FLR measures need to anticipate climate change effects on the growth and survival of trees and shrubs. Consequently, FLR practitioners need to adapt their restoration activities to

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9 IUCN 2017, Gender-responsive restoration guidelines. Available at: https://portals.iucn.org/library/node/46693
these changing climatic conditions. In the short term, adaptation measures can increase the resilience of existing forest cover through silvicultural treatments, for example to reduce evaporation or competition, or through establishing infrastructures to improve water harvest, decrease soil erosion, etc. In order to address longer-term adaptation and more severe effects of climate change, species that are resilient to climate change will need to be selected. The International Union of Forest Research Organizations has called this approach “transformational adaptation”\(^\text{10}\), and defines it as “measures to proactively respond to or anticipate climate change, that are larger in scale or more intense than incremental or anticipatory adaptation measures, or that are novel either to a region or by their nature. Transformational adaptation measures include managing novel ecosystems or creating them using assisted migration of species”.

Climate change adaptation and transformational adaptation should be considered at all stages of FLR, from strategy formulation to implementation.

### 5.7 Protect biodiversity

Globally, forests are home to most of the Earth’s terrestrial biodiversity and are therefore an important source of biodiversity. Well designed and successful FLR has the potential to arrest and reverse species extinction in various ways. Most countries in the world are Parties to the Convention on Biological Diversity (CBD). For that reason, the Aichi Biodiversity Targets, especially target 15 (dealing with ecosystem restoration), are of high importance. Due to the high value and uniqueness of biodiversity in the subregion, this dimension of sustainability should receive special consideration in FLR activities. Further, biodiversity conservation should be strongly promoted through FLR related awareness-raising campaigns.

### 5.8 Take a regional approach

Although much of the action will take place at the local or landscape level, coordination with a regional approach to FLR is necessary, with full respect of national and local approaches to natural resources management, because ambitious, large-scale, and well-designed landscape restoration activities would have positive consequences also for neighbouring countries. In addition, some of the largest infrastructure projects aim at improving connectivity, are strongly international in nature, and are likely to affect the watersheds and ecosystems beyond national boundaries. The drying of the Aral Sea is an excellent example of a major environmental challenge which has subregional causes, and thus needs regional solutions based on a transboundary river basin approach, encompassing not only the two countries bordering the Aral Sea, but also those located upstream.

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10 IUFRO, Forest Landscape Restoration as a Strategy for Mitigating and Adapting to Climate Change, Project Flyer. Available at: [https://www.iufro.org/download/file/1847/1304/flr-project-flyer_pdf/](https://www.iufro.org/download/file/1847/1304/flr-project-flyer_pdf/)
6. THEORY OF CHANGE BEHIND THE NATIONAL POLICY GUIDING PRINCIPLES

The following visualization tool was designed to provide an overview of the theory of change behind the principles presented in the previous chapters. It provides an easily accessible format to summarize all guiding principles and cross-cutting principles, their relationship and role in contributing to successful FLR outcomes.