National Policy Guiding Principles for Forest Landscape Restoration in the Caucasus and Central Asia

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Supporting countries in the Caucasus and Central Asia to deliver on their Bonn

Challenge commitments within the UN Decade on Ecosystem Restoration 2021-2030

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

ACKNOWLEDGEMENTS

CONTENTS

LIST OF ACRONYMS

ADB	Asian Development Bank
CBD	Convention on Biological Diversity
CCA	Caucasus and Central Asia
COFO	Committee on Forestry
COP26	26th Conference of the Parties to the UN Framework Convention on Climate Change
ECCA30	Europe, the Caucasus and Central Asia restoration by 2030
EIA	Environmental Impact Assessment
EU	European Union
EU ENRTP	European Union thematic program on Environment and Sustainable Management of Natural Resources including Energy
EUR	Euro
FAO	Food and Agriculture Organization of the United Nations
FLERMONECA	Forest and Biodiversity Governance, Including Environmental Monitoring – European Union
FLR	Forest Landscape Restoration
FLRM	Forest and Landscape Restoration Mechanism
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)
GPFLR	Global Partnership on Forest and Landscape Restoration
HA	Hectare
IFAS	International Fund for Saving the Aral Sea
IUCN	International Union for Conservation of Nature
IUFRO	International Union of Forest Research Organizations
KFW	Kreditanstalt für Wiederaufbau (German Development Bank for Reconstruction)
M&E	Monitoring and Evaluation
MPHSTF	UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan
NDC	Nationally Determined Contributions
NFP	National Forest Programme
NPGP	National Policy Guiding Principles for Forest Landscape Restoration
OWL	Other Wooded Land
ROAM	Restoration Opportunities Assessment Methodology (IUCN)
SDC	Swiss Agency for Development and Cooperation
SDGS	United Nations Sustainable Development Goals
SWOT	Strengths-Weaknesses-Opportunities-Threats analysis
TCP	Technical Cooperation Programme (FAO)

UN	United Nations
UN DECADE	United Nations Decade on Ecosystem Restoration
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
USD	United States Dollars
WRI	World Resources Institute
WWF	World Wide Fund for Nature

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, with a specific regional focus on the Caucasus and Central Asia (CCA). In light of the commitments pledged by CCA countries under the Bonn Challenge in 2018[1] , 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. It outlines the regional context (Chapter 2) and regional commitments to advance forest landscape restoration (Chapter 3) and lists the fundamental frameworks and tools that already exist to support of forest landscape restoration globally (Chapter 4). The NPGP are composed of thematic and cross-cutting principles, which contain basic ideas or rules explaining how FLR should work (see Chapters 6 and 7). 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.

FLR activity in Birchmulla forestry. Photo by A.Zakhadullaev

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1 In 2018, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan pledged to restore a total of over 2.5 million ha of forest landscape under the Bonn Challenge by 2030. In 2019 Azerbaijan joined the Bonn Challenge and brought the total pledge for the region to 3 million ha. For more information, visit: https://unece.org/restoration-forests-and-landscapes-unece-region

1. DEFINITION OF TERMS

1.1 Forest degradation

There are more than 50 definitions of forest degradation[2]. For the purpose of this tool, forest degradation is understood according to the FAO definition[3] : "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[4] 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[5] .

New planted Saxaul tree plantation after 3 years. Photo by A. Zakhadullaev

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2 H.G. Lund, What is a degraded forest? White Paper on Forest Degradation Definitions Prepared for FAO, 2009

3 https://www.fao.org/sustainable-forest-management/toolbox/modules/reducing-forest-degradation/basic-knowledge/en/

4 https://www.fao.org/climate-change/programmes-and-projects/detail/es/c/328989/

5 "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/about-us/

2. REGIONAL CONTEXT

Forests worldwide, including in the Caucasus and Central Asia (CCA) region, which comprises Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, play an essential role in mitigating climate change, sequestering millions of tons of carbon dioxide and alleviating the impact of extreme weather events.

The CCA region is characterized by a harsh climate with mountains and deserts, and on average low forest cover of 4.2% (7.0% if other woodlands are included[6]) . Armenia (11.5%), Azerbaijan (13.7%), Kazakhstan (1.3%), Kyrgyzstan (6.9%), Tajikistan (3.1%), Turkmenistan (8.8%) and Uzbekistan (8.7%) – have a low to very low forest cover. With 40.6 % forest cover, Georgia is the lone exception (see table 1).

In the region, there are strong anthropogenic pressures on forests, notably from fuelwood demand for local communities, leading to illegal/excessive logging, as well as from overgrazing, leading to forest degradation, and from irrigation and hydroelectric schemes along rivers, leading to loss of forest cover.

Forest landscape degradation is well acknowledged in CCA countries which, in the last 10 to 15 years, have greatly improved the condition of land resources, modernizing irrigation and drainage networks, and reducing water loss and soil erosion[7]. This is reflected in national development and environmental strategies and in strategies for poverty reduction. These documents specifically refer to forest policy, thus providing policy level visibility and commitment. However, in most cases, resources assigned are insufficient and forest resource monitoring is lacking.

Throughout the CCA region, forests are publicly owned, mostly through a state forest fund, which imposes specific rules on the use of the land concerned. While afforestation activities to create green spaces in and around some major cities are increasing, many more need to be carried out if the countries are to fully enjoy the goods and services provided by forest and tree resources.

As mentioned, key drivers of forest degradation across the CCA region include fuelwood removal, overgrazing and uncontrolled logging[8]. In addition, forest degradation will be further exacerbated by the impact of climate change. Since the situation varies among countries, a summary of country-specific information is provided in Annex 1 – "Country context". In addition, a list of forest restoration and related projects is provided in Annex 2 – "Past and ongoing FLR activities in CCA countries". These regional projects present a unique opportunity for policymakers and implementers to build on comprehensive experiences and learn from implementation challenges.

Afforestation efforts on the dried bottom of Aral Sea, photo by A. Zakhadullaev

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6 FAO – Global Forest Assessment interactive platform: https://fra-data.fao.org/

7 FLERMONECA, The State of the Environment in Central Asia, 2015

8 UNECE/FAO, Forest Landscape Restoration in the Caucasus and Central Asia, Geneva Timber and Forest Discussion Paper 72, 2019. Available at: https://unece.org/DAM/timber/publications/DP-72-flr-cca-en.pdf

TABLE 1

Forest and other wooded land cover in 2010, 2015 and 2020 and change in 1000 ha

Country	Land area	Forest 2010	%	OWL 2010	%	Forest 2015	%	OWL 2015	%	Forest 2020	%	OWL 2020	%	Change % Forest 2010-20	Change % OWL 2010-20	Forest landscapes restored 2018-2021
Armenia	2,847	332.64	11.7%	52.26	1.8%	329.52	11.6%	68.88	2.4%	328.47	11.5%	74.43	2.6%	-1.3%	42.4%	6,867.00
Azerbaijan	8,266	1,032.49	12.5%	31.56	0.4%	1,077.89	13.0%	29.49	0.4%	1,131.77	13.7%	26.72	0.3%	9.6%	-15.3%	
Georgia	6,949	2,822.40	40.6%	6.90	0.1%	2,822.40	40.6%	6.90	0.1%	2,822.40	40.6%	6.90	0.1%	0.0%	0.0%	809.00
Kazakhstan	269,970	3,082.18	1.1%	9,214.56	3.4%	3,308.46	1.2%	9,266.44	3.4%	3,454.68	1.3%	9,667.88	3.6%	12.1%	4.9%	318,000.00
Kyrgyzstan	19,180	1,229.68	6.4%	406.10	2.1%	1,251.81	6.5%	410.77	2.1%	1,315.38	6.9%	430.88	2.2%	7.0%	6.1%	5,653.00
Tajikistan	13,879	410.00	3.0%	142.00	1.0%	421.80	3.0%	142.00	1.0%	423.80	3.1%	142.00	1.0%	3.4%	0.0%	7,315.00
Turkmenistan	46,993	4,127.00	8.8%	0.00	0.0%	4,127.00	8.8%	0.00	0.0%	4,127.00	8.8%	0.00	0.0%	0.0%	0.0%	77,740.00
Uzbekistan	42,540	3,349.60	7.9%	989.00	2.3%	3,549.40	8.3%	1,078.00	2.5%	3,689.66	8.7%	1,175.02	2.8%	10.2%	18.8%	1,800,000.00
TOTAL	410,624	16,385.99	4.0%	10,842.38	2.6%	16,888.28	4.1%	11,002.48	2.7%	17,293.16	4.2%	11,523.83	2.8%	5.5%	6.3%	2,216,384.00

Sources: Global Forest Resources Assessment, FAO, 2020 (https://fra-data.fao.org); Global Forest Resources Assessments Country Reports 2020 (https://www.fao.org/forest-resources-assessment/fra-2020/country-reports/en/")

3. REGIONAL COMMITMENTS TO FOREST LANDSCAPE RESTORATION

3.1 The Astana Resolution

To address the challenge of forest landscape degradation, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan gathered at the first Ministerial Roundtable on Forest Landscape Restoration and the Bonn Challenge in the Caucasus and Central Asia, held in Nur Sultan (then Astana), Kazakhstan on 21-22 June 2018. During the meeting, they pledged to restore a total of over 2.5 million ha of forest landscape under the Bonn Challenge by 2030. In May 2019 Azerbaijan joined the Bonn Challenge and brought the total pledge for the region to 3 million ha. The meeting also adopted the Astana Resolution[9], committing the Caucasus and Central Asia region to go beyond 3 million ha, and strengthen partnerships and regional cooperation to this end.

3.2 The International Fund for Saving the Aral Sea

The main objective of the International Fund for Saving the Aral Sea (IFAS) is to finance and provide loans for joint practical measures, programmes, and projects for saving the Aral Sea, ecological rehabilitation of the Aral Sea surroundings and the Aral Sea Basin as a whole, taking into account the interests of all States in the region. The stated objectives of the IFAS include establishing and maintaining an interstate environmental monitoring system, database, and other information systems with data on the environment of the Aral basin, mobilizing finance for joint activities to protect air, water and land resources, flora and fauna, as well as funding joint scientific and technological projects and measures for the management of transboundary waters.

The member states of IFAS include Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

3.3 The draft strategy for landscape restoration and greening the infrastructure of the Caucasus and Central Asia

The UNECE/FAO Joint Forestry and Timber Section has conducted in depth studies of the forest sector in the Caucasus and Central Asia which resulted in the publication of two major papers: the "State of Forests of the Caucasus and Central Asia" (2019)[10] and "Forest Landscape Restoration in the Caucasus and Central Asia" (2019) [11]. Based on these studies and following the Astana Resolution, the Joint Section prepared a draft strategy for forest landscape restoration in the region. The "Draft strategy for landscape restoration and greening the infrastructure of the Caucasus and Central Asia"[12] was reviewed by UNECE Committee on Forests and the Forest Industry in November 2020.

The voluntary and non-binding draft strategy is to be implemented in line with existing national legislations and international agreements. It provides a broad framework within which countries of the subregion may define action plans that fit their national context, circumstances and implementation capabilities. Its purpose is to help countries of the subregion to access financing for forest landscape restoration through national and international funding. The draft strategy proposes a set of strategic objectives and actions together with guiding principles.

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9 Available at: https://unece.org/fileadmin/DAM/timber/meetings/2018/20180621/Resolution_ENG.pdf

10 Available at: https://unece.org/DAM/timber/publications/sp-47-soccaf-en.pdf

11 Available at: https://unece.org/DAM/timber/publications/DP-72-flr-cca-en.pdf

12 Available at: https://unece.org/fileadmin/DAM/timber/meetings/2020/20201104/ECE_TIM_2020_3_E.pdf

4. MAIN FRAMEWORKS AND TOOLS IN SUPPORT OF FOREST LANDSCAPE RESTORATION

4.1 Frameworks

4.1.1 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.

4.1.2 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.

4.1.3 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.

4.1.4 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.

4.1.5 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).

4.1.6 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, although none from CCA countries, some of the world's biggest companies, and influential civil society and indigenous organizations.

In particular, the Declarations 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.

4.1.7 The Glasgow Leaders' Declaration on Forests and Land Use

During the 2021 Climate Change Conference (COP26), 141 countries[13], 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.

4.1.8 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.

4.2 Tools

4.2.1 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.

4.2.2 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.

4.2.3 Gender-responsive restoration guidelines

FLR actions must identify gender gaps and biases to avoid exacerbating or reinforcing gender inequalities. In response to this need, IUCN and WRI developed the "Gender-responsive restoration guidelines" to ensure the application of ROAM and the ensuing FLR implementation, including

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13 https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/

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.).

4.2.4 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.

4.2.5 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.

4.2.6 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.

4.2.7 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

4.2.8 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[14] specifically designed for the 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

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14 Available at: http://www.forest-landscape.unece.org/

The platform also has a compendium of learning materials and useful resources about FLR, including global and regional training materials.

4.2.9 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.

FLR activities in Tashkent region. Photo by A.Zakhadullaev

5. NATIONAL POLICY GUIDELINES PRINCIPLES FOR FOREST LANDSCAPE RESTORATION - Purpose and expected benefits

5.1 Purpose of the National Policy Guiding Principles

Forest landscape restoration to reverse acute and very visible land degradation processes is high on the agenda in CCA countries. 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[15]. In the CCA region, those degradation processes are the result of past and ongoing unsustainable natural resource management of fragile ecosystems and are exacerbated by climate change.

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[16]. Despite the relatively low forest cover (except for Georgia) in the region, forests remain crucial building blocks for landscape restoration in CCA countries.

Forest landscape restoration efforts in the region are not new. Conservation, afforestation, and reforestation activities have been carried out for many years, although with mixed results. Most of these restoration activities have been supported by projects under the responsibility of the respective national forest agencies (see Annex 2). Lessons from the last two decades, in the region but also globally, 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 4). 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.

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15 https://www.thegef.org/what-we-do/topics/land-degradation
16 https://www.fao.org/in-action/forest-landscape-restoration-mechanism/background/approach/en/

5.2   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"[17], 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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17 FAO, Developing effective forest policy – A guide", FAO Forestry Paper 161, 2010. Available at: https://www.fao.org/3/i1679e/i1679e00.pdf

6. GUIDING PRINCIPLES

6.1 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

6.2   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

6.3 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[18] 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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18 J. M. Bryson, Strategic Planning for Public and Nonprofit Organizations. A guide to Strengthening and Sustaining Organizational Achievement. The Jossey-Bass Management Series, 1988.

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

6.4   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.

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

6.5 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

6.6   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

6.6.1 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

6.6.2 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

6.6.3 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 is the main driver of deforestation and forest degradation. While this is not the pre-dominant cause in the CCA, agricultural lands occupy large territories in most countries of the region, some causing major environmental problems (soil salination, drought etc.) that ultimately affect forest landscapes. The livestock sector, very significant in the region, is also responsible for landscape degradation due to grazing.

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 the region 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

6.7   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 feed-back 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

7. CROSS-CUTTING PRINCIPLES[19]

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

7.1   Build on existing commitments and partnerships

In the last 10 years, an increased number of FLR related initiatives have taken place in the CCA region and are gaining pace as a nature-based solution to address the challenges of climate change (see Annex 2). These past and the current 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.

7.2   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.

7.3   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 as well as for ensuring equitable access to resources and benefit sharing. Based on the "Gender-

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19 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

responsive restoration guidelines", published by IUCN[20], 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".

7.4 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.

7.5 Alleviate poverty

The incidence of poverty remains high throughout the region, although with some significant disparities between countries. Through Poverty Reduction Strategy Papers or similar documents, CCA administrations have committed themselves to implementing strong anti-poverty measures, improving social services and access to education and healthcare as well as to addressing rural development.

The rural poor 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).

7.6 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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20 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"[21], 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.

7.7   Protect biodiversity

Globally, forests are home to most of the Earth's terrestrial biodiversity and are therefore an important source of biodiversity[22]. Well designed and successful FLR has the potential to arrest and reverse species extinction in various ways. CCA countries have a wide variety of ecosystems, ranging from mountains, plains and flood plains to steppes, semi-deserts, and deserts. These ecosystems contain rich biodiversity that needs to be protected, in particular when restoring existing forest ecosystems (sub-principle 6a). All CCA countries 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.

7.8   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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21 IUFRO, Forest Landscape Restoration as a Strategy for Mitigating and Adapting to Climate Change, Project Flyer. Available at: https://www.iufro. org/download/file/18473/1304/flr-project-flyer_pdf/

22 FAO, The State of the World's Forests, 2020

8. 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.
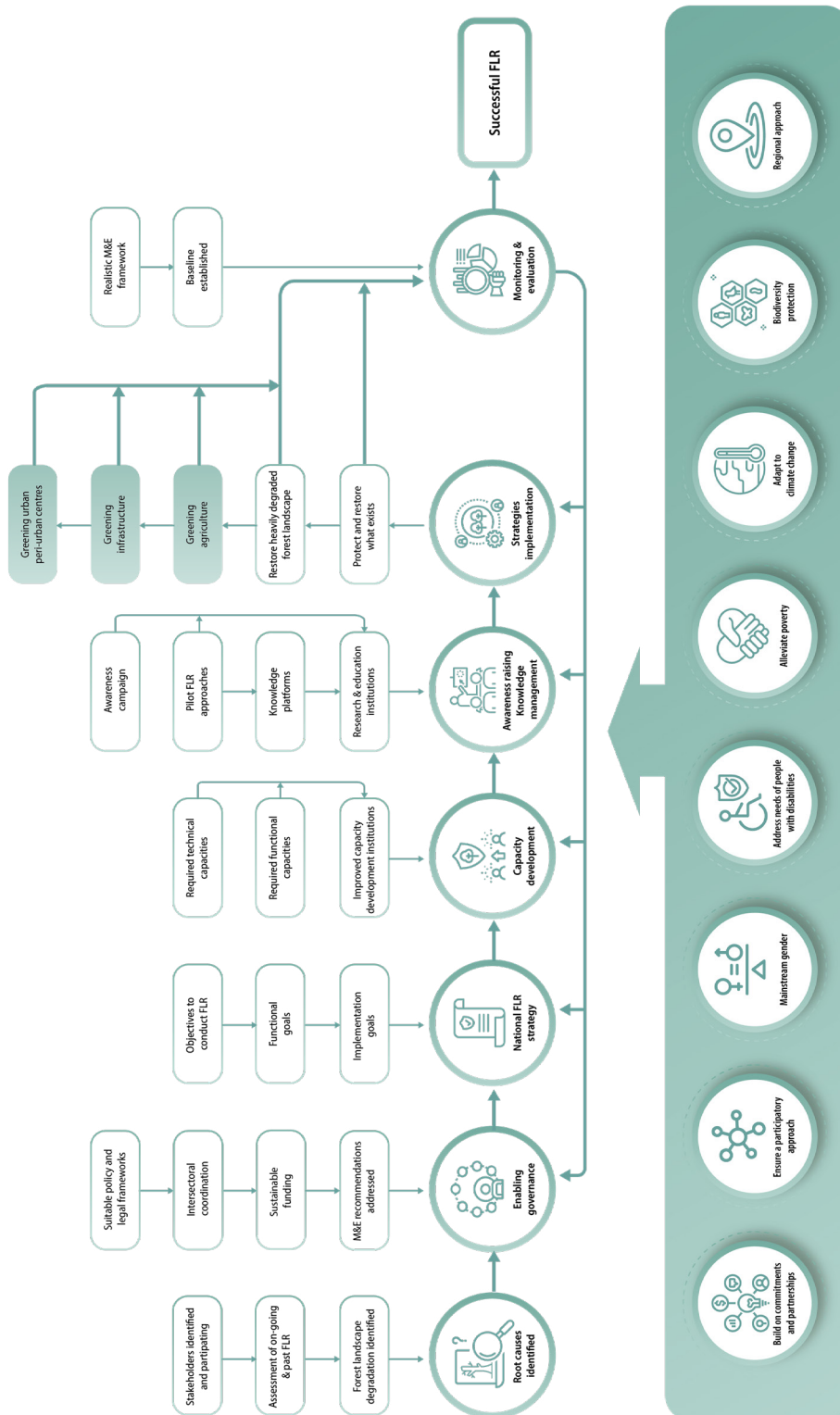
ANNEX 1 – COUNTRY CONTEXT AS OF MARCH 2022[23]

1. Armenia

The most recent estimates suggest that 70 % of Armenia's forests are degraded. Calculations show that wood removals by far exceed the capacity of Armenia's forests to produce a sustainable yield. Most households in rural areas depend on fuelwood for energy. An improvement in the gas supply after 2010 led to a reduction in illegal cutting for fuelwood, however, the cost of gas and electricity remain high for poor households. Consequently, wood removal has remained at unsustainable levels and fuelwood consumption is likely to continue to be the main cause of forest degradation in the country.

Wood harvest and forest degradation have resulted in erosion, landslides, and disturbances to the hydrological cycle. A third of the country's area is considered eroded.

According to the National Forest Program (NFP) of the Republic of Armenia 2005-2015[24], the country's optimal forest cover would be 20.1 %, which stands in contrast with the 11.5 % reported under the latest Forest Resources Assessment (2020). This optimal cover would require an increase in the forest area of 243,700 ha. The goal is to reach this target figure by 2050, as stated in the country's Intended Nationally Determined Contributions (INDC). Armenia's updated NDC for 2021-2030 aim to reduce the country's GHG emissions by 40% from 1990 emission levels. The sustainable use of land and better forestry management would be necessary to achieve this target. The NDC also incorporates, as part of its implementation plan, another major target: increasing forest cover to 12.9%. Afforestation and forest restoration to prevent erosion were mentioned as national priorities in the Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity from 2015. Under the Bonn Challenge, Armenia pledged to restore 50,000 ha by 2030.

According to official data, 6,867 ha of forest area have been restored between 2018 and the end of 2020.

2. Azerbaijan

In Azerbaijan, 80 % of all villages now have access to gas, which drastically reduces the pressure on forests for fuelwood removal. Overgrazing and illegal logging are the current drivers of forest degradation, particularly in remote regions with higher poverty rates and weaker law enforcement.

According to the country's National Forest Concept 2015-2030, increasing the forest area through afforestation and plantations is a major priority. Tugai forests and forests on slopes are identified as the key forest types in need of restoration. In May 2019, Azerbaijan joined the Bonn Challenge and committed to the restoration of 170,000 ha of forests by 2030 and an additional 100,000 ha if further funding can be mobilized.

Azerbaijan's national target is to plant or restore forests on an area of 593,000 ha, thereby increasing forest cover up to 20 % by 2030. The Ministry of Ecology and Natural Resources of Azerbaijan has consequently initiated a project creating fruit forests. Since December 2016, an area of 5,220 ha, under the State Forest Fund, was afforested with various fruit tree species. Between 2017 and 2021 fruit trees were planted on 24,000 ha in total.

According to official data, 34,567 ha have been restored between 2018 and 2020.

3. Georgia

Georgia has the highest forest cover in the CCA region, at 40.6%. Forests play an important role as a source of fuel and timber for communities living nearby. This has led to overexploitation in past decades, mainly due to fuelwood cutting and collection. Due to excessive wood harvest, triggered by short-term permits during the 1990s, about 200,000 ha of forests were almost destroyed. Grazing is an issue as well, but less pronounced than fuelwood collection. The National Forestry Concept of 2013 provides guidance on forest policies in Georgia and includes the restoration of degraded forests and reforestation as a

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23 Where reference is made to official data and estimations throughout Annex 1, these figures were provided to the author by country focal persons during the Regional Policy Dialogue on Forest Landscape Restoration held on 9 February 2022 online. For more information about the meeting, visit: https://unece.org/info/Forests/events/364381

24 A new NFP is currently under development with the assistance of FAO

priority. Other actions under this concept include drawing up a forest landscape restoration strategy. In 2020, the Ministry of Environment Protection and Agriculture (MEPA), with technical assistance of GIZ, developed Georgia's 2030 Climate Change Strategy and 2021-2023 Action Plan (CSAP). The CSAP identifies measures and actions that support the development of the Georgian economy and infrastructure in a way which sets Georgia on a pathway to meet its international obligations and national ambitions for climate change mitigation. It also sets a target to increase CO_2 absorption capacity of forests by 10% from 2015 levels.

In May 2020, the new Forest Code was approved by parliament[25]. It highlights the role of forest plantations in preventing erosion and landslides, increasing the energy potential of forests, and obtaining wood resources without damaging natural forests. It also mentions the need to stop forest degradation.

The restoration potential for Georgian forests has been estimated to be at least 200,000 ha, amounting to the area of forest that was severely exploited during the 1990s due to the practice of handing out short-term cutting-permits.

Under the Bonn Challenge, Georgia has committed to plant an additional 1,500 ha of forest and assist the natural regeneration of forests on 7500 ha by 2030. These goals are included in the action plans of forest administrations and involve the restoration of at least 125 ha of forest per year, as well as the implementation of measures to promote the natural regeneration of at least 625 ha of forests annually.

According to official data, 809 ha have been restored between 2018 and the end of 2020.

4. Kazakhstan

The Ministry of Agriculture of Kazakhstan estimates that 70% of the country's ecosystems is degraded. Most degraded territories are arid zones with saxaul forests, steppes, and agricultural land. In general, overgrazing and salinization are the main drivers of land degradation. The major causes of degradation of the saxaul forests were fuelwood removals and charcoal production, as well as grazing. Today, fuelwood removal plays a less important role in contributing to forest degradation in Kazakhstan because of better access to other sources of energy.

Kazakhstan's "Concept for Conservation and Sustainable Use of Biodiversity by 2030" specifies the Aral Sea and protective tree lines along roads and railway lines as key targets for forest and wooded land restoration. The Concept sets a target to increase wooded land to 5% of the total land area by 2030. This is to be achieved through reforestation and afforestation of a total of 1.5 million ha by 2030, including the establishment of fast-growing tree plantations, establishing green belts around cities, and planting 10,000 ha of shelterbelts. In this context the President of the Republic of Kazakhstan has outlined his ambition to plant over two billion trees in forests and 15 million trees in settlements within five years (2021-2025).

Under the Bonn Challenge, Kazakhstan has made the commitment to expand its existing restoration and afforestation efforts by 10,000 ha annually from 2021 onwards to reach the target of 1,5 million ha restored by 2030. Should additional technical and financial support be provided, Kazakhstan will be able to further expand its existing restoration and afforestation efforts by 15,000 ha annually (from 2021 onwards). Subject to availability of this support, the total area restored and afforested by 2030 could amount to 1,8 million ha.

According to official data, 318,000 ha have been restored between 2018 and 2020.

5. Kyrgyzstan

In Kyrgyzstan, 36 % of juniper forests (about 160,000 ha) and half of the walnut and wild fruit forests have been lost since 1968. Today, more than one third of Kyrgyzstan's households rely on coal or fuelwood for heating, with the fuelwood component contributing to forest degradation. Furthermore, grazing in forests inhibits regrowth, increasing forest degradation and making forest restoration difficult. Walnut forests are in the greatest need of restoration due to the high numbers of people living nearby whose incomes are tied to walnut harvests.

About 45% of all Central Asia's glaciers, which are the main sources of rivers, are on the territory of the Kyrgyz Republic. In connection with global climate change projections, the increased melting of glaciers, which is exacerbated by the degradation

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25 https://www.fao.org/faolex/results/details/en/c/LEX-FAOC196014/

of mountain forests, is of particular concern. In addition, according to the latest forest inventory, more than 50% of the forests are mature and overmature forests, which is another factor of forest degradation.

In light of this, the 2040 Forest Sector Development Concept of the Kyrgyz Republic has prioritized the objective to increase the climate-regulating and water-regulating potential of forests. With assistance of FAO, a National Action Plan for the forestry sector has been approved for the period 2019-2023. Following the commitment made under the Bonn Challenge, the Forest Ecosystems Development Department of the State Agency for Environmental Protection and Forestry announced that, in line with national programmes, afforestation will be implemented on 23,200 ha by 2030, accompanied by the restoration of 300,000 ha of degraded pastureland through grazing restrictions.

According to official data, 5,623 ha have been restored between 2018 and 2020.

6. Tajikistan

Forest cover in Tajikistan was around 16% about 100 years ago, but most of this was cleared for agriculture and mining and cover is now 3.1%. Following the severe economic crisis and civil strife in the 1990s, most of Tajikistan's inhabitants live in poverty. Today, about 25% of the population still live under the national poverty line [26]. With limited access to coal and other non-wood fuel, 60 % of the rural population is estimated to rely on fuelwood from domestic forests and woodlands for heating. In addition, increasing livestock numbers have led to overgrazing, preventing forest regeneration, which continues to be a major cause of forest landscape degradation. This is particularly critical in the woodlands of the Pamir mountains because of the harsh growing conditions. Tugai forests, which once made up 4.9% of the country's forests, had shrunk to only 0.6% by the end of the 1990s. Juniper, pistachio, riparian forests in the mountains and saxaul forests all need intensive forest landscape restoration.

The National Strategy and Action Plan on Conservation of Biodiversity 2020 aimed to expand the area of high-value forests by 1,000 ha by 2020 through the engagement of households and to restore 5 % of degraded lands. The State Forestry Agency has developed a strategy for forests for implementation over the period 2015-2030. Currently a new Forest Sector Development Program 2022-2026 has been submitted to the Government for approval. The National Development Strategy (NDS) 2030 addresses energy issues and aims to provide a reliable energy supply. According to NDS 2030, planting 1,000 ha, rehabilitating 2,000 ha, and supporting natural forest regeneration on 8,000 ha of forests annually is envisaged.

Under the Bonn Challenge, Tajikistan committed to restore 66,000 ha by 2030, included in this number is 18,000 ha already restored between 2011 and 2018.

According to official data, 7,315 ha have been restored between 2018 and 2020.

7. Turkmenistan

Turkmenistan, with a forest cover of 8.8%, is largely desert area, accounting for about 80 % of its land area. Almost all of Turkmenistan's forested landscapes, regardless of type, show visible signs of degradation. The principal causes of forest degradation remain the same as in other CCA countries: uncontrolled logging, fuelwood removal and the conversion of forest to agricultural land. Most forests exist today as small remnants of more extensive forested landscapes. There are now only 7,000 ha of Tugai forest and 42,020 ha of juniper forest remaining. Of the former saxaul forest and woodland, less than one third remains today. There is an overwhelming case for restoration of the remaining saxaul forest reserve to combat further degradation and desertification and to protect the biodiversity of these cold winter deserts.

The National Forest Program 2021-2025 (State Committee of Turkmenistan for Environmental Protection and Land Resources) prioritizes restoration and afforestation of saxaul forests to halt erosion of drylands and to protect settlements. Within this Program, 3 million seedlings must be planted annually. There is also a National Strategy on Climate Change 2019-2030 as well as a National Aral Sea Program 2021-2025 and its action plan for implementation. Both were approved recently to minimize the negative impact of the drying of the Aral Sea, as well as fulfil the tasks under the resolution on "Cooperation between the United Nations and the International Fund for Saving the Aral Sea (IFAS)", adopted by the United Nations General Assembly.

According to official data, 77,740 ha have been restored between 2018 and 2020.

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26 https://www.adb.org/countries/tajikistan/poverty

8. Uzbekistan

Since 1950, Uzbekistan has lost 90 % of its former Tugai forests, as a result of conversion to agriculture, uncontrolled fuelwood removal and reductions of seasonal flooding as a result of water overexploitation for irrigation. The result is that saxaul forest area has dropped by 82 %. More recently, windbreaks, mostly of poplars on irrigated agricultural land, have decreased from 40,000 ha to less than 20,000 ha since the late 1990s.

According to Uzbekistan's National Biodiversity Strategy and Action Plan, the Tugai and saxaul forests are in greatest need of restoration. In addition, the establishment of large-scale nut and fruit plantations could help to compensate for degradation of the country's mountain forests and to create job opportunities. The creation of woodlots or plantations around rural communities could address the population's demand for timber and fuelwood.

Uzbekistan's recently adopted forestry programme for 2020-2024 includes annual forest plantation targets of 555,000 ha. In 2019, almost 500 000 ha of forests were planted. Uzbekistan is committed to increase its forest cover by 500,000 ha in the period between 2011 and 2030 under the Bonn Challenge. Moreover, should financial support be provided, an additional 500,000 ha could be restored and afforested. In November 2021, the Government of Uzbekistan announced a new afforestation initative called "Green Land Programme" ("Yashil Makon"), which aims to plant 200 million trees annually and to increase the greening of cities from the current 8% to 30% by 2026.

In 2017, the Government launched an initiative for a United Nations Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan (MPHSTF) and currently is working to plant around two million ha of new plantations and forests and reclaim land from the desert.

To support this effort, the European Investment Bank is currently looking at a plan worth EUR 100 million to address the main sources of the Aral Sea environmental catastrophe and is working closely with partners in Uzbekistan to ensure maximum effectiveness of the Aral Sea rescue efforts.

According to official data, 1.8 million ha have been restored between 2018 and 2020. Annex 2 - Past and ongoing FLR activities in CCA countries

ANNEX 2 - PAST AND ONGOING FLR ACTIVITIES IN CCA COUNTRIES

For reference, the largest and most important FLR or FLR-related projects are listed hereunder:

1. Armenia

- FAO-GCF: Forest Resilience of Armenia, Enhancing Adaptation and Rural Green Growth via Mitigation (2021-2029), USD 10 million
- FAO-GEF7: Implementation of Armenia's LDN Commitments through Sustainable Land Management and Restoration of Degraded Landscapes (2021 – 2024), USD 2.2 million
- FAO-TCP Facility: Technical Support for Revision of the National Forest Policy and Strategic Framework (2020 – 2021), USD 44 thousand
- KfW: Biodiversity and Sustainable Local Development (2018-2025), EUR 26 million
- UNDP-GEF5: Mainstreaming Sustainable Land and Forest Management in Dry Mountain Landscapes (2016-2020), USD 3 million

2. Azerbaijan

- FAO-GEF7: Conservation and Sustainable Use of Biodiversity: Strengthening Network of Protected Areas through Advanced Governance and Management (2021-2026), USD 2.6 million
- KfW: Biodiversity and Sustainable Local Development (2018-2025), EUR 26 million
- FAO-GEF6: Forest Resources Assessment and Monitoring to Strengthen Forest Knowledge Framework in Azerbaijan (2017-2019), USD 1.5 million
- UNDP-GEF: Sustainable Land and Forest Management in the Greater Caucasus Landscape (2013 – 2020), USD 6.3 million
- EU ENRTP/WWF: Regional Project - Increasing the resilience of forest ecosystems against climate change (2011-2015)

3. Georgia

- GIZ-GCF: Enabling Implementation of Forest Sector Reform in Georgia to Reduce GHG Emissions from Forest Degradation (2021-2028), USD 38 million
- FAO-GEF7: Achieving Land Degradation Neutrality Targets of Georgia through Restoration and Sustainable Management of Degraded Pasturelands (2020-2022), USD 1.8 million
- KfW: Biodiversity and Sustainable Local Development (2018-2025), EUR 24 million
- UNDP-GEF5: Applying Landscape and Sustainable Land Management (L-SLM) for Mitigating Land Degradation and Contributing to Poverty Reduction in Rural Areas (2016-2020), USD 0.9 million
- World Bank: Forests Development Project (2003-2009), USD 15 million

4. Kazakhstan

- World Bank: Kazakhstan Resilient Landscapes Restoration Project (2021-2025), USD 4 million
- UNDP-GEF6: Conservation and Sustainable Management of Key Globally Important Ecosystems for Multiple Benefits (2018-2022), USD 8 million
- World Bank-GEF3: Forest Protection and reforestation project (2007-2015), World Bank: USD 30 million, GEF: USD 5 million

5. Kyrgyzstan

- FAO-GCF: Carbon Sequestration through Climate Investment in Forests and Rangelands in Kyrgyz Republic (2021-2029), USD 30 million

- World Bank-GEF6: Sustainable Forest and Land Management/Integrated Forest Ecosystem Management Project (IFEMP) (2017-2022), World Bank: USD 12 million, GEF: USD 4 million

- UNDP-GEF6: Conservation of Globally Important Biodiversity and Associated Land and Forest Resources of Western Tian Shan Forest Mountain Ecosystems to Support Sustainable Livelihoods (2017-2021), USD 4 million

- FAO-GEF5: Sustainable Management of Mountainous Forest and Land Resources under Climate Change Conditions (2014-2021), USD 5 million

- GIZ: Community-based Management of Walnut Forests and Pasture in Southern Kyrgyzstan (2014-2018)

- SDC: Kyrgyz-Swiss Forestry Program (KIRFOR), (1995 – 2009)

6. Tajikistan

- Korean Forest Service: Phase 3, Saxaul and Pistachio Plantations (2019-2020), USD 1.6 million

- KfW: Adaptation to Climate Change through Sustainable Forest Management in Main Watersheds and for the Protection of the Local Population from Disasters (2015-2019), EUR 8 million

- GIZ: Adaptation to Climate Change through Sustainable Forest Management (2013-2018), EURO 3 million

7. Turkmenistan

- UNDP-GEF 7: Conservation and Sustainable Management of Land Resources and High Nature Value Ecosystems in the Aral Sea Basin for Multiple Benefits (2022-2026), USD 4.6 million

8. Uzbekistan

- FAO-GEF6: Sustainable Management of Forests in Mountain and Valley Areas (2018-2023), USD 3 million

- UNDP-GEF6: Sustainable Natural Resource and Forest Management in Key Mountainous Areas Important for Globally Significant Biodiversity (2017-2022), USD 6 million,

- UNDP-GEF3: Conservation of "Tugai Forest" and Strengthening Protected Areas System in the Amu Darya Delta of Karakalpakstan (2005-2013), USD 1 million

9. Regional

- FAO: Restoration of Degraded Forest and Other Wooded Lands in Caucasus and Central Asia: Forest Restoration Improvement for ENvironmental Development and Sustainability – FRIENDS (2022-2025). Countries: Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, USD 2 million

- FAO-GEF6; Integrated Natural Resources Management in Drought-prone and Salt-affected Agricultural Production Landscapes in Central Asia and Turkey (CACILM2) (2017-2022). Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, USD 11 million

- GIZ: Programme for Sustainable and Climate Sensitive Land Use for Economic Development in Central Asia (2017-2020). Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

- GIZ-IKI: Ecosystem-based Adaptation to Climate Change in High Mountainous Regions of Central Asia (2015-2020). Countries: Kazakhstan, Kyrgyzstan, Tajikistan

- GIZ: Integrated Biodiversity Management in the South Caucasus (2015-2019). Countries: Armenia, Azerbaijan, Georgia

National Policy Guiding Principles for Forest Landscape Restoration in the Caucasus and Central Asia