

Food and Agriculture Organization of the United Nations

## UNECE

# **Forest Landscape Restoration** in Eastern and South-East Europe





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### ABSTRACT

This study identifies key drivers of forest degradation and the potential for forest landscape restoration in 17 countries of Eastern and South-East Europe. It builds on assessments from national experts and the best available data to support countries in preparing restoration pledges in the run up to the Ministerial Roundtable on Forest Landscape Restoration in Eastern and South-East Europe, scheduled to take place in 2021.

#### **DATA SOURCES**

Data and inputs for this study were primarily collected through UN and FAO publications, statistical data, government documents and reports. National experts completed an online questionnaire to provide country-specific information and were given an opportunity to clarify this by e-mail and at a workshop held in Belgrade in December 2019. UNECE/FAO focal points identified national experts who were delegated by national institutions as representative national respondents. While every effort has been made to ensure the accuracy of the data reported, it should be noted that the data from international sources are sometimes inconsistent with reporting at the national level and were occasionally modified, in consultation with national experts.

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## List of Acronyms and Abbreviations

a.s.l.	above sea level
BMUB	Bundesministerium für Umwelt. Naturschutz und Nukleare Sicherheit (German Federal Ministry for the
	Environment, Nature Conservation and Nuclear Safety)
CBD	Convention on Biological Diversity
CoC	Chain of Custody
EC	European Commission
ECE region	56 countries in Europe, North America and Central Asia
EFSOS II	The European Forest Sector Outlook Study II
ERDF	European Regional Development Fund
EU	European Union
EUFORGEN	European Forest Genetic Resources Programme
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	The Food and Agriculture Organization of the United Nations Corporate Statistical Database
FLR	forest landscape restoration
FOEN	Federal Office for the Environment of Switzerland
FRA	Forest Resource Assessment
FSC	Forest Stewardship Council
FSC-CW	Forest Stewardship Council- Controlled Wood
FSC-RA	Forest Stewardship Council- Risk Assessment
FTE	Full-time equivalent
GDP	gross domestic product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPA-FGR	Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources
GPFLR	The Global Partnership on Forest Landscape Restoration
ha	hectare
IEA	International Energy Agency
IUCN	International Union for Conservation of Nature
LECB	Low Emission Capacity Building
LDN	Land Degradation Neutrality
LUDP	Land Use Development Plan
m	metre
Mtoe	Million tonnes oil equivalent
NAMA	Nationally Appropriate Mitigation Actions
NAPCC	National Action Plan on Climate Change
NFI	National Forest Inventory
PEFC	The Programme for the Endorsement of Forest Certification
RDP	Rural Development Plan
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC NC	UNFCCC National Communications
USA	United States of America
US\$	US dollar
UXO	Unexploded Ordnance
WWF	World Wide Fund for Nature

Forest Landscape Restoration in Eastern and South-East Europe

### **Executive summary**

### **Background and introduction**

The study "Forest Landscape Restoration in Eastern and South-East Europe" is developed to support policy-makers to prepare restoration pledges for the Ministerial Roundtable on Forest Landscape Restoration and the ECCA30/Bonn Challenge in Eastern and South-East Europe. It examines the existing forest cover, degradation causes, and the potential for forest landscape restoration in seventeen countries of Eastern and South-East Europe. The report is based on three sources of information: (i) a review of relevant literature, (ii) an online survey completed by national experts of the participating countries, and (iii) discussions and outcomes of the sub-regional workshop for countries of Eastern and South-East Europe that was held in Belgrade, Serbia on 16-17 December 2019 (hereinafter referred as the "Belgrade workshop").

The mostly state-owned forests in Belarus, Ukraine and Moldova have similar ecological conditions, with forest cover of 39.8%, 15.9% and 11.2% respectively, and are therefore grouped in this study as the "Eastern Europe subgroup". Of the eight EU countries covered by the study, constituting the "EU countries subgroup", Hungary has the lowest forest cover at around 21%, followed by Romania (28.8%), Poland (30.9%), Czech Republic (34%), Bulgaria (37%), Slovakia (45.1%), and Croatia (47%). Slovenia has the highest percentage of forest cover (62%). The study also covers five countries in Western Balkans, grouped as "Balkan countries", out of which Serbia has the lowest forest cover (29.1%), followed by Albania (36.6%), and North Macedonia (42.5%), Bosnia and Herzegovina (43%) and Montenegro (60%). Forests in Turkey cover 29.2 % of the land area and are ecologically quite different from other countries reviewed in this study, which is why Turkey is placed in a standalone, separate subgroup.

The study found discrepancies between data submitted by national experts and international reporting sources. These types of discrepancy may arise from the differing definitions and methodologies used when collecting data. They may also be due to the lack of reliability of data from multiple sources, the lack of national forest inventories in some cases and deficiencies of systematic data collection. Bosnia and Herzegovina, for instance, reported forest cover of 63 %, based on its second national forest inventory, which differs from the 54% reported by their national Agency of Statistics, and the 43% in the most recent Forest Resources Assessment (FRA) 2020 report. For consistency, all data appearing in the four paragraphs below have been taken from FRA 2020 and United Nations (UN) sources.

## With some exceptions, the overall forest area in countries of Eastern and South-East Europe increased only incrementally over the last two decades

According to FRA 2020, the forest area in the study countries changed only slightly from 1990 to 2020. No countries exceeded a 1% increase during any decade; conversely, no countries experienced a loss to forest area greater than 0.5% during the same period.

Primary forests constitute less than 10% of the forest in all countries of Eastern and South-East Europe, apart from Bulgaria (15%) and Albania (10%). Planted forests, generally grown for timber production, are most common in the Czech Republic (94%) and Poland (78%). Most other countries reviewed in this study have naturally regenerating forests.

Turkey has reported the highest annual rate of afforestation, with the forest area increasing continuously since 2000. By contrast, most countries considered in this study reduced their afforestation efforts after 2010, favouring natural regeneration to expand the forest area. The underlying reason behind this trend was a gradual reduction in financial and human resources, the abandoning of small-scale agriculture, and decrease of rural population.

## Countries in Eastern and South-East Europe differ in how they perceive and address forest degradation – but they agree that degradation poses a major threat to their forests

A landscape planning approach to forest management is largely absent from the countries covered by the study. Moreover, countries have widely differing perceptions of what constitutes forest degradation. There is no national definition of forest degradation in more than half of the countries reviewed by this study. Four countries use the definition provided by the Food and Agriculture Organization of the United Nations (FAO) which states that "forest degradation is the reduction of the capacity of a forest to provide goods and services". Forest degradation is most frequently the result of forest fires, pests and diseases, wind and storm damage, over/under-exploitation of forest goods and climatic effects, such as summer droughts.

Most countries believe that fires, pests and diseases, droughts and invasive species will pose an increased risk for forest degradation in future.

Out of "Eastern Europe subgroup countries", Belarus identified drought, pests and diseases, and a gradually lowering groundwater table as major degradation problems, in forests and wetlands. Forest fires were also mentioned as a significant risk. For Moldova, soil erosion and illegal logging (for fuelwood and timber) are listed as important direct degradation issues. Ukraine listed the poor health condition of forests (droughts, biotic diseases) and forest fires as the most important direct drivers for forest degradation in the future.

The majority of the EU countries considered in this study cited droughts, pests and diseases as major forest degradation problems. Bulgaria, Croatia, Hungary and Poland acknowledged forest fires as the most urgent degradation issue. Croatia, Romania and Slovakia suffer greatly from the effects of wind damage in forests. Romania cited over-exploitation as a major contributor to forest degradation.

In the Western Balkans, with the exception of Serbia, fires (mainly the result of uncontrolled agricultural burning) are seen as the main driver of forest degradation. Bosnia and Herzegovina, North Macedonia and Serbia reported over-exploitation of forests as a driver, which is the consequence of higher demand for fuelwood and logging without (valid) permits, mainly occurring in private forests. Montenegro and Serbia have issues related to land-use change, due to increased pressure from partly unplanned urbanization, or a consequence of rural depopulation. Serbia cited severe degradation as a result of storm and wind damage in northern Serbia, landslides in central Serbia, and a general decline in soil quality affecting the whole country.

Turkey considers forest degradation overall to be a minor issue, though overgrazing is a long-standing problem. Pests and diseases, forest fires and invasive species are viewed as drivers of degradation.

## Countries are starting to recognize the potential of Forest Landscape Restoration approach and engaging in restoration activities

Forest and landscape restoration (FLR), as a term, is gaining recognition in the region. Almost two-thirds of national experts who responded to the questionnaire during the preparation of this study indicated that they have formulated national FLR objectives. FLR falls into the remit of ministries responsible for forestry, agriculture, environment, rural and peri-urban development, water and energy as well as bodies responsible for emergency situations and also forest owners. Three countries provided rough estimates for the financial and human resources invested in FLR, while three others mentioned institutions or funds that could potentially cover FLR activities. Four countries mentioned ongoing or recently completed FLR projects. Most commented that restoration activity is integrated with forest management practice, including some cases involving trees outside forests (e.g. windbreaks).

The most commonly mentioned restoration activity (14 out of 17 countries) was afforestation and reforestation (7 out of 17 countries). Six countries referred to natural regeneration after degradation as the most important forest restoration measure. Other restoration efforts include the establishment of riparian forest belts/wetland restoration (2 countries), forest protection zones at peri-urban margins (1 country), rehabilitation of forests/pasture mosaics (1 country), peri-urban tree planting, reclamation of soils and agroforestry (1 country). Most countries look to increase the quality and resilience of existing forests, rather than actively extending their forest area.

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