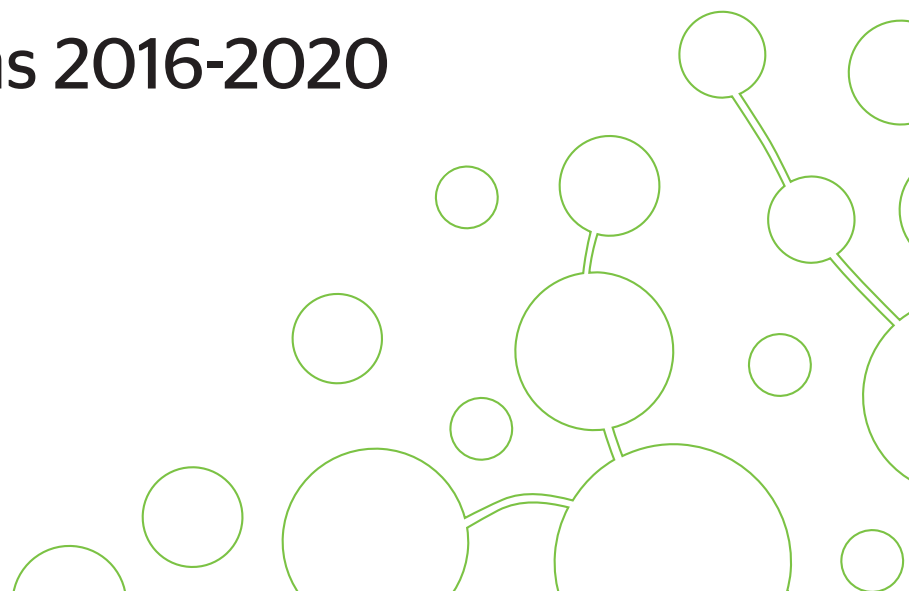


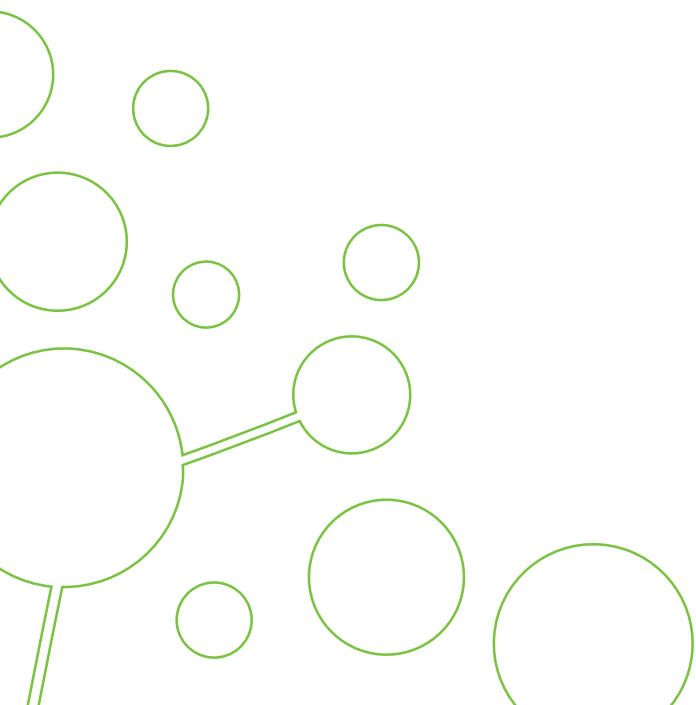
The background of the entire page is a photograph of a large, mature tree with thick, dark brown branches and a dense canopy of bright green leaves. The lighting suggests a sunny day, with some leaves appearing slightly overexposed. A semi-transparent green rectangular box is overlaid on the bottom half of the image, containing the title text.

Implementation of the FOREST EUROPE Commitments

National and Pan-European Actions
2016-2020

**Implementation of the FOREST
EUROPE Commitments
National and Pan-European
Actions 2016-2020**





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Disclaimer

This publication was compiled by the FOREST EUROPE Liaison Unit Bratislava. The report does not necessarily contain all actions and measures taken by signatories contributing to implementation of the Madrid ministerial commitments or the Oslo Goals and 2020 Targets in European countries. The report does not contain information on all FOREST EUROPE signatories.

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Introduction

Thirty years of collaboration within FOREST EUROPE process has resulted in adoption of a wide range of high-level policy commitments on forests embraced in twenty-one resolutions, four decisions and six declarations. This publication provides information on the actions taken by different countries and international organisations in relation to the commitments adopted at the Seventh Ministerial Conference held in October 2015, in Madrid, Spain and the Ministerial Decision adopted at the Oslo Ministerial Conference in 2011.

The Report is prepared for the Eight Ministerial Conference on the Protection of Forests in Europe, as convened in April 2021 in Bratislava, Slovakia. The information compiled in this publication provide background for political discussions and responses on current and future opportunities and challenges and can also serve as a reference point for decision-makers when formulating goals for forests in Europe for the next period as well as for FOREST EUROPE signatories and observers in planning of further activities.

The report consists of three main parts, national and pan-European implementation of the Madrid ministerial commitments and one specific part dedicated to implementation of a set of goals and targets adopted at the Oslo Ministerial Conference.

Part I. provides a summary of the main actions, policies and measures taken by governments and other stakeholders during 2011-2020 in order to achieve Goals for the European Forests and European 2020 Targets. Information on implementation of these 2020 Targets from Oslo were processed based on specific qualitative data provided by countries and supplemented by selected data on quantitative pan-European indicators for SFM.

Part II. and III. includes summary of the implementation of commitments from the last ministerial conference during the period 2016-2020.

In order to put the Madrid commitments into action, FOREST EUROPE Expert Level Meeting held in May 2016 in Bratislava, Slovakia adopted the FOREST EUROPE Work Programme as a pan-European follow-up of the Madrid conference. Part II of the report presents the regional approach to meeting Madrid commitments as a part of the Work Programme.

Part III. shows the extent to which the signatory countries are meeting the Madrid ministerial commitments. Information on national implementation of the Madrid commitments are provided in a form of brief national country reports.





Part I.

Implementation of the Goals for European Forests and the European 2020 Targets for Forests

Background

At the 6th Ministerial Conference on the Protection of Forests in Europe held in 2011 in Oslo, Norway, ministers responsible for European forests adopted Goals for European Forests and the European 2020 Targets for Forests (hereinafter Oslo Goals and 2020 Targets) (Table 1).

This part of the report provides the synthesis of the overall implementation, summarizing main policies, actions and measures taken by signatory countries to achieve the Oslo Goals and the 2020 Targets.

Qualitative data and information were collected through the specific part of the joint FOREST EUROPE/UNECE/FAO pan-European Questionnaire on the Qualitative Indicators for Sustainable Forest Management named “Reporting on Progress towards

the Goals for European Forest and the European 2020 Targets for Forests”. Where appropriate, such qualitative information is complemented by selected quantitative indicators for SFM.

In the above mention reporting, the signatory countries (through their national correspondents) reported, among other things, major actions and measures taken towards achieving particular goals and targets. Also the European Commission provided the relevant information on political initiatives at the EU level contributing to the Oslo commitments.

Moreover, the countries were asked to make their self-assessment of the progress they made towards achieving the Oslo 2020 Targets, which is summarized in Figure 1.

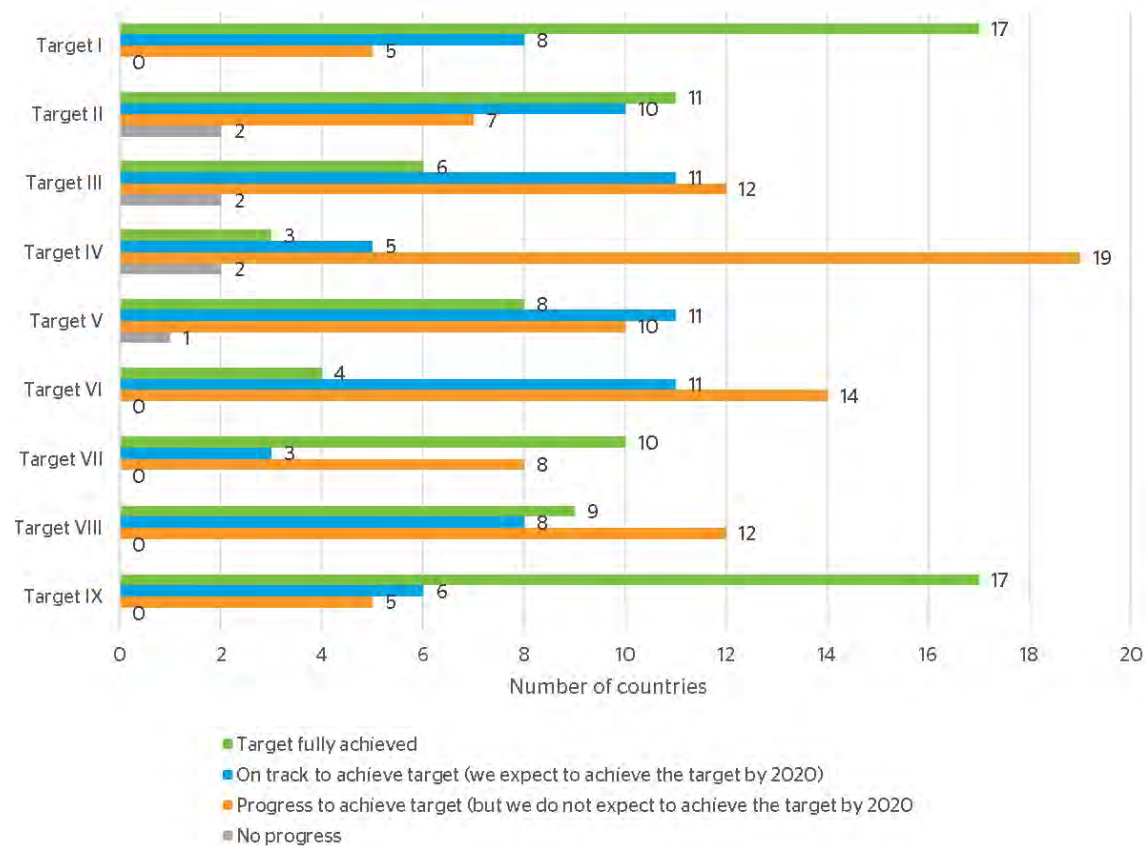


Figure 1 Progress made towards achieving the Oslo 2020 Targets - self assessment by countries

According to self-assessment, Target 1 (25 out of 30 countries), Target 9 (23 out of 28 countries) and Target 2 (21 out of 30 countries) have been considered as fully achieved or on track to be achieved by 2020 by the majority of countries (more than two thirds of reporting countries).

On the other hand, Target 4 (21 out of 29 countries), Targets 3 and 6 (14 out of 31 and 29 countries respectively), Target 8 (12 out of 29 countries) and Target 5 (11 out of 30 countries) were reported by many countries (more than one third of reporting countries) that these will not be achieved by 2020 or no progress has been done, thus representing major common pan-European challenges in reaching the mentioned Oslo 2020 Targets, based on this self-assessment.

As the goals and targets are thematically interlinked, the actions and measures taken to implement particular targets have also contributed to the implementation of the corresponding goals. To avoid duplicities in presentation of the reporting outcomes, the actions taken towards the targets and their corresponding goals were put together when appropriate.

Generally, many actions and measures implemented in some country can represent a challenge in another country. Similarly, the order of actions listed, does not indicate their importance. Moreover, several signatory countries consider some of the reported actions and measures taken as permanent tasks and processes that should also continue after 2020.

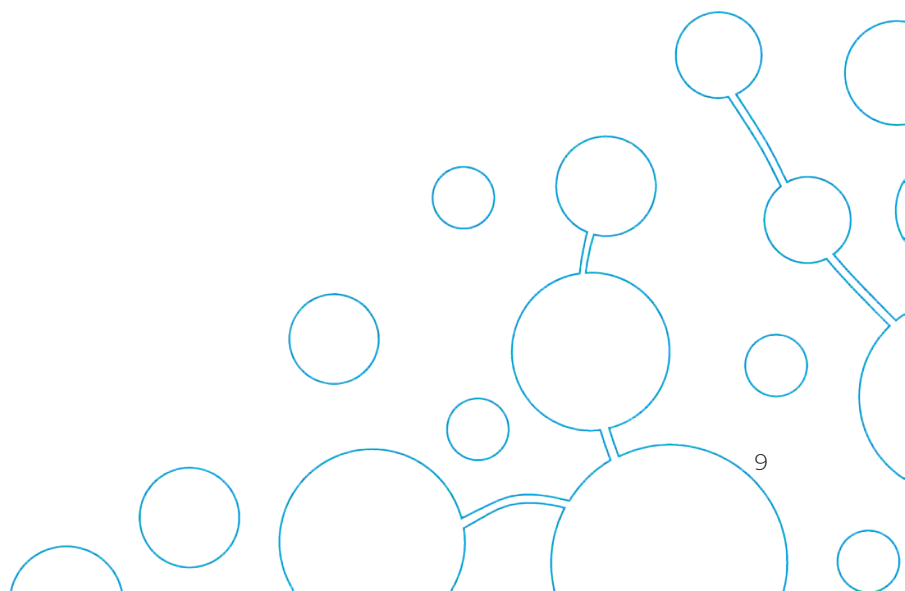


Table 1 Overview on the Goals for European Forests and the European 2020 Targets for Forests

Goals for European Forests
I. Sustainable management of all European forests ensures multiple forest functions and enhances lasting provision of goods and services
II. European forests contribute to a green economy, including through increased provision of wood, other forest products and ecosystem services from sustainable sources
III. Forest management in Europe is being adapted to changes in climate, forests are healthy and resilient to natural hazards and protected against human-induced threats such as forest fires, and the productive and protective functions of forests are maintained
IV. The potential of European forests to mitigate climate change, through carbon sequestration in trees and soils, carbon storage in forest products and substitution of non-renewable materials and energy sources, is utilised to minimise Europe's ecological footprint without harming the global carbon balance
V. The loss of forest biodiversity in Europe is halted and degraded forests are restored or rehabilitated
VI. The role of forests in combating the progress of desertification is strengthened
VII. Socioeconomic and cultural benefits, especially for livelihoods, rural development and employment from European forests are optimised
VIII. Illegal logging and associated trade in wood and other forest products are eliminated in Europe
European 2020 Targets for Forests
I. All European countries have developed and are implementing national forest programmes, or its equivalent, in line with the shared vision and goals and the pan-European approach to national forest programmes
II. In addressing emerging issues forest knowledge is improved through research, education, innovation, information sharing and communication
III. In response to political objectives on the use of renewable raw material and energy in Europe, the supply of wood and other forest products from sustainably managed forests has increased substantially
IV. The full value of forest ecosystem services across Europe is being estimated with a view to using common valuation approaches, and that values are increasingly reflected in relevant national policies and market-based instruments such as payments for ecosystem services
V. All European countries include strategies for forests and climate change adaptation and mitigation in national forest programmes or equivalents and all other relevant national strategies
VI. The rate of loss of forest biodiversity at habitat level is at least halved and where feasible brought close to zero, and measures are taken to significantly reduce forest fragmentation and degradation and to restore degraded forests
VII. The role of forests in combating desertification is fully recognised and forests are also managed to that end
VIII. All European countries have policies and measures which ensure a significant increase in socio-economic and cultural benefits, especially for human health, livelihoods, rural development and employment from forests
IX. Effective measures are taken at regional, sub-regional and national levels to eliminate illegal logging and associated trade

Target I:

All European countries have developed and are implementing national forest programmes, or its equivalent, in line with the shared vision and goals and the pan-European approach to national forest programmes

National Forest Programmes (NFPs) and their action/operational plans have proven to be a widely used policy - making tools for promoting SFM as they were implemented in a large number of European countries. However, in a few countries NFPs are still under elaboration, or the elaboration of NFP is expected to start after adoption of a new forest act which should introduce the requirement to elaborate NFP.

Several countries have also started the revision process of NFPs with a view to respond to the current developments in the forest sector, other sectorial policies and the emerging issues. On the other hand, in some countries, the need to update NFPs remains a challenge.

In line with the MCPFE approach to National Forest Programmes in Europe the NFPs should be built on cross-sectoral principles to ensure acceptance across the sectors and consistency with national legislation and policies. The importance of NFPs as tools establishing cooperation with other sectors and ensuring coordination of activities of various sectorial policies was highlighted in the reports of several countries.

Besides NFPs, nearly all countries reported on the existence of different kinds of forest policy documents titled as "policy", "strategy" or as "programme" for the development of the forest sector addressing e.g. consumption and utilisation of wood, socio-economic aspects of the forest sector, etc.

At the EU level, in 2013, the Communication "A new Forest Strategy: for forest and the forest-based sector" set a new EU Framework to coordinate and ensure coherence in forest-related policies and to enhance the contribution of forests and forest-based sector to the EU objectives.

Rural Development Policy (RDP) under the Common Agricultural Policy (CAP) has continued to be the main source of support for the protection and the sustainable management of EU forests.

Policies, objectives, actions and measures implemented to achieve Target I simultaneously contribute to the implementation of Goal I and indirectly also to other Goals and Targets.

Target II:

In addressing emerging issues forest knowledge is improved through research, education, innovation, information sharing and communication.

Countries reported plenty of research topics solved within cooperation and partnership of ministries, universities and research centres aimed at climate change, restoration of degraded forests, or preparation of operational documents such as forestry standards, guidelines, etc. Forest-related research has been enhanced due to international cooperation within the EU framework programmes, and with research institutions such as European Forestry Institute (EFI) and International Union of Forest Research Organizations (IUFRO). There was a significant progress within the EU Framework Programme FP7 and Horizon 2020, supported by European Innovation Partnership (EIP) Raw Materials.

Nevertheless, the need of better reflection of research results and more effective knowledge transfer from research to policy and practice was pointed out by some countries.

In some countries, several forestry education centres were established and new educational and training programs were implemented to reflect the requirements of the labour market better.

Although financial instruments providing financial support for research and education have been developed in some countries, there are still several countries missing systematic approach for funding forest related research and education.

Information sharing on forests among all stakeholders and public through national forest information

systems, on-line platforms and the Internet were reported by most countries to be a central point for knowledge transfer. In February 2020, the first version of the Forest Information System for Europe (FISE) was launched as an entry point for sharing information with the forest community on Europe's forest environment, its state and development. In addition to that, such information sharing was complemented by various kinds of conferences, seminars and lectures.

Several countries reported progress in national forest inventories (NFI) and improving knowledge on forests due to sharing of the obtained information. However, few countries informed about limited access to more detailed forest inventory data. Some countries reported the use of new technologies such as remote sensing, aerial photographs and LIDAR to acquire more accurate forest related data.

Although several countries reported on the existence of communication strategies and/or other communication activities and mechanisms, the need of continuous improvement of the existing communication strategies and national communication actions promoting the importance of the role of forests for the society, forest management and forest products was stressed.

Policies, objectives, actions and measures implemented to achieve Target II also contribute indirectly to the implementation of other Targets and Goals.

Target III:

In response to political objectives on the use of renewable raw material and energy in Europe, the supply of wood and other forest products from sustainably managed forests has increased substantially

In respect to forest policies, most of the reporting countries elaborated and implemented different kinds of strategic documents and their action plans and measures supporting the use of wood from sustainably managed forests, supporting energy generation from wood biomass, wood mobilization, low-carbon development of forest industry, including carbon pool in harvested wood products (HWPs), etc. Strategic documents were in some countries complemented by elaboration of studies on wood production forecast, and potential use of biomass.

In 2012, the EU adopted the strategy “Innovating for Sustainable Growth: A Bioeconomy for Europe”, which proposes a comprehensive approach to address environmental and energy issues, food supply and sustainable use of natural resources. In addition to that, the Blueprint for EU Forest-based Industries was issued in conjunction with the new EU Forest Strategy. It describes wood-processing and its related industries and the challenges they face as well as necessary actions to be taken.

As for the legal and regulatory framework, several countries developed regulations defining legally binding procedures for forest management planning system to ensure SFM and provision of forest-related goods and services as well as regulations on timber harvesting and transportation based on SFM principles.

Regarding financial instruments, subsidies to support the use of forest biomass for energetic purposes was reported by a few countries.

Support of forest certification (PEFC and/or FSC) in forest holdings and forest-related industry has been reinforced in several countries. Also the principles of

close-to-nature forest management and sustainable use of wood within forestry have been reported.

Several countries informed also on promoting the use of wood in building constructions.

Through the European Innovation Partnership for Agriculture (EIP-AGRI) focus groups and workshops, ways to improve sustainable mobilisation of biomass from forests, and how to promote innovative wood-based value chains, were addressed.

According to the assessment of pan-European Indicators for SFM, annual fellings have risen in the period of 2010 - 2015, still the net increment has also remained in a positive trend, though rising at slower rate than fellings. Fellings/increment ratio increased from about 64% in 2010 to some 70% in 2015.

Total volume of roundwood removals has grown roughly by 8% between the years 2010 and 2015¹.

There is a clear growing trend for non-wood goods (NWGs) production and value as compared to data provided for earlier periods. There has also been an improvement on the reporting, but still the presented figures cannot be considered as representative for all of Europe and must be interpreted as minimum values for the financial benefits generated from NWGs.

Per capita consumption of wood for energy purposes varied moderately in this period with the peak in 2013 (data for 2011, 2013, 2015).

Policies, objectives, actions and measures implemented to achieve Target III directly contribute to the implementation of Goal II.

¹ In the period of 2010-2015 – average values 2008-2012 (for 2010) and 2013-2017 (for 2015)

Target IV:

The full value of forest ecosystem services across Europe is being estimated with a view to using common valuation approaches, and that values are increasingly reflected in relevant national policies and market-based instruments such as payments for ecosystem services

During the last period, the Liaison Unit with the Expert Group Valuation of and Payments for Forest Ecosystem Services developed and launched Web-based Portal on Forest Ecosystem Services². The online portal aggregates various valuation methods and approaches as well as payment mechanism (including case examples) implemented in European countries.

At national levels, national forest programmes, forest policies, strategies, or their equivalents specifically state the objectives in relation to values and payments for forest ecosystem services (FES). Concerning the legal and regulatory framework, forest laws are the main instruments used to regulate issues related to FES.

Some of the countries have also developed or are developing assessment tools and methodologies to estimate values of FES including guidelines on natural capital accounting. This work is complemented by elaboration of national studies and/or reports on mapping, assessment and valuation of FES and on tools supporting sustainable provision of FES.

MAES initiatives (Mapping and Assessment of Ecosystems and their Services) as part of the EU Biodiversity Strategy to map and assess ecosystems and their services was launched in 2012. It was aimed at provision of information on the state and trends of ecosystems, including forests and their services by analysing spatial data.

Many countries reported on implementation of research projects aimed mainly at: improvement of operational conditions for FES provision; mapping and valuation of FES; proposals of schemes on payments for ecosystem services (PES) provided by forests. At the same time, countries pointed out the need to continue in research and development of a system

of identification, quantification, creating markets and payments for the most important FES.

In reference to informative means, countries stressed the need to intensify awareness rising on importance of FES and to communicate their value better with the emphases to increase its acceptance by society and the willingness to pay for provision of FES.

Several countries reported on development and/or establishment of various financial mechanisms supporting the delivery of specific FES. Most of these mechanisms are focused on e.g. promoting biodiversity, supporting carbon sequestration, afforestation, preventing illegal logging, hunting and wildlife observing, building infrastructure to free access to forests, and recreation.

According to the assessment of pan-European Indicators for SFM (Indicator 4 Financial and Economic Instruments), only 16 countries reported on implementation of PES schemes. The reported values of marketed services (indicator 3.4. - Value of Marketed Services on Forest and Other Wooded Land) also vary significantly among countries and information about it most probably remains incomplete.

Besides PES schemes, governments also use other financial instruments to help forest owners to achieve SFM and specific objectives, some of which can also be seen as ecosystem services. The most common used financial instruments are grants or subsidies, followed by tax measures. Countries reported on transfer payments³ to private forest owners provided in support of specific objectives such as conservation of biodiversity, establishment or maintenance of protected areas, protection of soil and water and recreation.

² The FOREST EUROPE Web-based Portal on Forest Ecosystem Services is available at <https://foresteurope.org/Web-Portal-on-Forest-Ecosystem-Services/>

³ Transfer payments to private forests include all government expenditures (including external) on direct financial incentives (grants or subsidies) paid to non-government and private sector institutions, enterprises, communities or individuals operating in the forest sector to implement forest related activities. It excludes tax incentives; government loans; benefits in kind (free or subsidized materials and/or advice). It also excludes direct financial incentives available to all individuals and enterprises not specifically related to forest related activities (e.g. relocation grants, employment subsidies, general training grant schemes).

Countries assessed this Target most frequently as not to be achieved till 2020 (though with some progress made in majority of these countries). Data and information provided by countries also suggests that payments for forest ecosystem services are implemented unevenly across Europe. Monitoring

of the marketed value of FES also remains one of the challenges in this area.

Policies, objectives, actions and measures implemented to achieve Target IV directly contribute to the implementation of Goal II.



Target V:

All European countries include strategies for forests and climate change adaptation and mitigation in national forest programmes or equivalents and all other relevant national strategies

Majority of countries have elaborated national climate change mitigation and adaptation strategies or their equivalents (either cross-sectoral or focused exclusively on forests and forestry). Specific measures for climate change adaptation and mitigation are included also in updated/new national forest programmes and other relevant forest-policy documents. Some countries reported that preparation of sectoral guidelines, models and techniques will be necessary to implement the climate change adaptation measures.

Activities of the FOREST EUROPE Expert Group working on adaptation issues resulted in preparation of a set of policy recommendations for adaptation of forests to climate change.

Provisions related to adaptation to and mitigation of climate change are recognized by forest and/or forest protection related legislation of several countries.

The new regulation on protective measures against pests of plants was adopted at the EU level to ensure safe trade, as well as to mitigate impacts of climate change on health of crops and forests.

Regarding financial instruments and economic policy, several countries shared information on establishment of forest climate funds and/or other financial mechanisms to support the measures aimed at adaptation of forests to and mitigation of climate change, maintaining and expanding the potential of forests and wood to store carbon (afforestation, reforestation, planting species better adapted to climate conditions, restoration of degraded forests and over-mature forests, etc.). At the EU level, support for rural development measures in forests focused, among other things, on prevention of forest fires and disturbances, restoration measures after damage and investment for climate change adaptation and provision of environmental services.

In relation to informational means, relevant information is obtained within the framework of national forest inventories, monitoring of forest health, elaboration of forest management plans, inventories of carbon stock in forests and harvested wood products (HWPs), etc.

The EU Civil Protection Mechanism have been supporting forest fire prevention through risk assessment, management plans, early warning and alert systems and awareness raising. Forest fire risk and incidence for coordinated and quick response have been monitored in the EU by Emergency Response Coordination Centre (ERCC) supported by the European Forest Fire Information Systems (EFFIS).

Adaptation to climate change and climate change mitigation are the key areas of forest research and development; there are various national and international forest research projects related to climate change adaptation which outcomes are expected to be incorporated in a form of respective measures into national strategic documents or guidelines.

Some examples of knowledge transfer, decision support and communication activities were reported by countries as well. These include e.g. development of online climate change adaptation tools; promotion of production of wood products with longer life cycle (e.g. use of wood for constructions) to increase the volume of carbon stored in HWPs; campaigns to raise the interest of small forest owners and communities in the management of their forests in the context of climate change adaptation. On the other hand, limited awareness of the public and some stakeholders on specific issues and the importance of forest adaptation to climate change still remain challenging in several countries.

According to the assessment of pan-European Indicators for SFM the overall increase in biomass carbon stocks between 2010 and 2020 amounts to 155 Mt C or Mt CO₂ per year for the period 2010-2020. For example, in the EU-28, the forest biomass increase (120 Mt C) equals to around 10% of the gross greenhouse gas emissions in this period. However, the increase of the carbon stock in biomass is slowing down.

Monitoring forest damage remains challenging with several methodological issues which together with irregular occurrence of different types of damaging agents makes interpretation of reported numbers and drawing the trends in such a short period difficult. It is

also crucial to underline that the data from the pan-European reporting refer to the period until 2015, and do not reflect later developments, as further large-scale forest disturbances associated with climate change were recently signalled from some parts of Europe. Their effect might be reflected in the slowing growth of reported forest biomass carbon stock in the period 2015-2020.

Policies, objectives, actions and measures implemented to achieve Target V directly contribute to the implementation of Goal III and Goal IV.



Target VI:

The rate of loss of forest biodiversity at habitat level is at least halved and where feasible brought close to zero, and measures are taken to significantly reduce forest fragmentation and degradation and to restore degraded forests

The maintenance and enhancement of forest biodiversity is anchored by many countries in their respective national strategies and programmes such as Forest and/or Biodiversity Strategies, NFPs, RDPs or their equivalents.

Countries reported on improvements of national forest-related legislation and practices aimed at better incorporation of biodiversity conservation concepts including retaining deadwood, promotion of natural regeneration, close-to-nature management and the application of integrated forest management approaches.

In Europe, the area of forest and other wooded land (the highest hierarchical levels of forest habitats⁴) increased in the period 2010-2020. This suggests that forest habitats have not been lost due to deforestation.

In Europe, the area of predominantly coniferous forests decreased in the period of 2010-2020, which might be interpreted in some places as a positive trend of gradual abandonment of spruce and pine monocultures. However, the loss of natural coniferous habitats due to natural disasters and pest outbreaks is behind this trend which can be considered negative. There are significant differences between countries and sub-regions in this trend. In some countries, especially of North Europe, there has been an increase in coniferous forest.

Total area of protected forests was continuously growing in a long term before as well as after 2010. Between the years 2000 and 2020 it increased by about 65 % for MCPFE Class 1 (area set aside or managed for protecting biodiversity). Total reported area of MCPFE Class 2 (area with main management objective of protecting landscapes) fluctuated in the last 20 years with overall increase by 7.6% between 2010 and 2020. However, changes or even loss of habitat diversity still can take place in protected areas, because of climate change or abandonment of forest management in previously managed forests, natural succession on unmanaged non-forest land or other processes.

However, together with the existence of a habitat type and its area, the quality of habitat is also important.

Particular species often depend on particular habitat components such as deadwood, veteran trees with cavities, small water pools, etc. so called microhabitats. Pan-European set include an indicator for deadwood, reported by an increasing number of countries. In majority of reporting countries, the volume of deadwood is slightly increasing, which results from new approaches to deadwood retention and its promotion. Tree microhabitats are also promoted through a new European network INTEGRATE set up in 2017 by the Standing Forestry Committee meeting of the European Commission on request by Germany and the Czech Republic. This voluntary cross-border network promotes and advances forest management approaches integrating nature conservation into SFM at three levels: the policy and decision-makers, forest practitioners, and research.

Potential increase in the area of introduced tree species, if they dominate a stand, could be interpreted as a loss of natural habitats. However, if only admixed to some level, introduced (non-invasive) tree species do not necessarily have negative effects on biodiversity. Similarly, in the light of climate change, certain potential of introduced tree species for improving stability, vitality and biodiversity of forest ecosystems can also be considered.

Increase in the area of plantations, if any, can be also interpreted as the habitat loss, especially if they are established on forest land or more natural forest are being replaced. Due to their low share in total forest area, and small relative changes within them, it is very difficult to compare these data between countries or between reporting cycles and to draw a trend.

Forest degradation has not been clearly defined yet in the international context. FOREST EUROPE introduced the new indicator Forest land degradation (which however does not fully correspond to forest degradation) in 2015 and elaborated the pilot study on its feasibility, data availability and reliability. Within the framework of the study, a new definition of degraded forest land was developed according to which the countries were asked to report data. In this reporting cycle, just four countries reported on at least one of

required partial areas, which suggests that forest land degradation does not represent a major issue in Europe. Such degraded areas usually result from past land uses other than forestry (agriculture, mining, etc.) and forestry bodies not necessarily have the data on them unless they are subjects of restoration and afforestation programs that were reported by 4 countries (of which two reported restored areas and two some minor forest areas degraded recently).

Similarly, there is no internationally agreed definition or unambiguous interpretation of forest fragmentation for European conditions and this issue, including its relation to biodiversity, is very complex. LUB in cooperation with European Commission – Joint Research Centre and the Expert Group⁵ elaborated a pilot study on this new indicator, concluding that areas temporarily unstocked due to forest management

do not cause fragmentation⁶ (only land-use change does) and that the existing forest fragmentation in each particular country differs based on its natural conditions and history of land use.

Recent changes in forest fragmentation in Europe are rather small and depend on developments outside forestry. Such fragmentation results from construction of new roads (especially motorways), housing and similar activities. It can be mitigated using green bridges, biocorridors, stepping stones and similar structures, however, they are needed on non-forest land (and their construction or establishment are usually out of competence of forest sector).

Policies, objectives, actions and measures implemented to achieve the Target VI. directly contribute to the implementation of the Goal V.



⁴ e.g. EUNIS classification is hierarchical. At 1st level, forests and other wooded land are considered a habitat (similarly as e.g. grasslands). At the 2nd level, forests are divided to broadleaved deciduous, broadleaved evergreen and coniferous forests. Lower levels then divide these habitats according to dominant tree species, soil and water specifics, plant communities, etc.

⁵ FOREST EUROPE Expert Group on the Implementation of the Updated Pan-European Indicators for SFM

⁶ in compliance with the latest update of EUNIS habitat classification and with CORINE Land Cover classes areas temporarily unstocked as a part of forest management are not considered as fragmentation

Target VII:

The role of forests in combating desertification is fully recognized and forests are also managed to that end

Various strategic and policy documents were elaborated setting up respective measures related to combating desertification and soil degradation aimed mainly at: afforestation and reforestation of degraded lands; expanding of forest cover and increase of land productivity in arid areas; protection of forest vegetation against forest fires and restoration of forest affected by forest fires; reduction of susceptibility of forest ecosystems to threats related to drought and strengthening water retention.

Regarding legal and regulatory framework, the role of forests in combating desertification is recognized in forest laws of some countries.

As for informative means a few education programmes, campaigns and awareness rising on the role of forests in combating desertification were carried out in several countries.

Desertification causes problems mainly in the southern part of the pan-European region. In many countries in Europe, desertification still does not represent an issue for forest management that had to be tackled. However, several of these countries made efforts e.g. in the form of sharing know-how on afforestation and reforestation, elaboration of studies and projects on the subject and engagement in international policies related to desertification. Desertification on forest or other wooded land may be seen as a part of forest land degradation.

Policies, objectives, actions and measures implemented to achieve Target VII directly contribute to the implementation of Goal VI.



Target VIII:

All European countries have policies and measures which ensure a significant increase in socioeconomic and cultural benefits, especially for human health, livelihoods, rural development and employment from forests

Recognition of the socioeconomic and cultural benefits in national forest programmes or strategies and rural development programmes (RDP) is observed among many European countries. Reported information on policy objectives and measures relate to e.g. recreation, tourism, human health and well-being, livelihood, employment and education.

In reference to legal and regulatory framework some countries referred to the implementation of legal and supporting measures for rural development through improvement of business environment and creation of new income opportunities in different forestry areas related to socioeconomic and cultural benefits. At the same time some countries called to encourage production of different forest products leading to diversified and regular income sources as well as creation of new job opportunities.

Joint work of UNECE/FAO Forestry and Timber Section and the FOREST EUROPE Liaison Unit Bratislava resulted to the preparation and adoption of Guidelines on the Promotion of Green Jobs in Forestry.

In addition to that, FOREST EUROPE Expert Group on Human Health and Well-being coordinated by the Liaison Unit Bratislava produced a set of policy recommendations for promoting recreation services and use of benefits of sustainably managed forests for human health.

Regarding financial instruments, several countries made direct reference to their RDPs as tools of financial support for the improvement of e.g. employment capacity, wood processing capacities, infrastructure and utilisation of forest resources for socioeconomic and cultural benefits, health and livelihood in rural and urban areas. On the other hand, a few countries pointed out their need to raise awareness on different support programmes, to increase full use of related funding instruments, including better use of possibilities within the existing rural development schemes.

Some countries reported implementation of supporting mechanisms for employment and self-employment in the forest sector (e.g. training system, financial support). In spite of that, availability of skilled workforce and occupational safety and health remain, in the long term, the cause of concern in several countries.

In respect to informative means, countries highlighted several actions such as social or educational projects promoting benefits of forests for human health and social aspects of SFM; actions for public and stakeholders presenting forest sector and forest functions including educational activities for children; and establishment of a platform for communication between stakeholders, scientists and policy makers about forestry related socio-economic and cultural issues.

According to the assessment of pan-European Indicators for SFM, the share of forest and other wooded land primarily designated or managed for public recreation is about 6%. However, 70% of forests and other wooded land in Europe are available for public recreation (more than 90% in the majority of reporting countries). These numbers remain generally stable.

On the other hand, despite ambitions to promote rural development through green job opportunities and economic viability of the sector, long-term declining trend in the sector's employment has continued. Number of employees in the forest sector has decreased in the recent decade by about ten percent.

Policies, objectives, actions and measures implemented to achieve Target VIII directly contribute to the implementation of Goal VII.

Target IX:

Effective measures are taken at regional, sub-regional and national levels to eliminate illegal logging and associated trade

Concerning legal and regulatory framework most countries informed that national forest laws/forest acts set legal framework to secure legality of logging and associated trade of domestic and imported wood; these inter alia ensure application of SFM principles so that the volume of planned felling will not be exceeded. As regards international commitments, the EU member countries reported on implementation of Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 also known as Timber Regulation (EUTR), and EU FLEGT (Forest Law Enforcement, Governance & Trade) Regulation at national level. The EUTR review confirmed its potential to combat illegal logging and associated trade, but also the need for furthering its uniform and effective application.

In reference to forest policies, several countries developed regional programmes for checking legality of timber trade. Development of supporting documents for inspectors to harmonize the controls throughout the countries was reported by a few countries as well.

Besides that, countries reported different kinds of action and/or measures leading to the elimination of illegal logging and associated trade e.g. regulation of logging through licensing system; introduction of sanction systems; modification of regulatory framework for cutting permissions; controlling and monitoring of allowed logging; implementation of certification schemes promoting the SFM practices and sustainable timber sources through products labelling; introduction of web platforms to enhance the transparency in timber harvesting but also to collect information on timber trade; implementation of electronic timber tracking systems.

Policies, objectives, actions and measures implemented to achieve Target IX directly contribute to the implementation of Goal VIII.





Part II.

Implementation of the FOREST EUROPE Work Programme 2016 – 2020

Background

This chapter describes actions and activities taken at the pan-European level in the period 2016-2020 to follow-up the Madrid Ministerial Conference held in 2015 and to reflect on political priorities set up in:

- Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe;
- Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy;
- Madrid Ministerial Resolution 2: Protection of forests in a Changing Environment.

The activities and actions taken to implement these commitments at the pan-European level, and described in this chapter, were defined in the FOREST EUROPE Work Programme 2016-2020 and subsequently carried out in cooperation with signatories and observers and other relevant organisations and partners. The work programme set out its activities in seven thematic programme areas:

1. Further development and updating of policies and tools for sustainable forest management;
2. Forest monitoring and reporting;
3. Enhancing the role of sustainable forest management in a green economy;
4. Incorporating the value of forest ecosystem services in a green economy;

5. Protection of forests in a changing environment including their adaptation to climate change;
6. Enhancing the social dimension of SFM in the context of the benefits of forests to human health and well-being;
7. Communication and outreach.

Besides that, the FOREST EUROPE Work Programme 2016-2020 comprised two additional specific actions.

In particular, the work programme undertook to conduct the review of the FOREST EUROPE process to fulfil the Madrid Ministerial Decision: Future Direction of FOREST EUROPE, in order to respond to current and new challenges and to maintain efficiency, effectiveness, transparency and inclusiveness of the process.

Moreover, to fulfil commitments resulting from the Madrid Ministerial Decision adopted at the Madrid Extraordinary Ministerial Conference held in October 2015, a specific action was targeted at further discussion on a legally binding agreement on forests in Europe (LBA) and exploring possible ways to find common ground on LBA.

Some of the actions and activities described in this chapter refer to the commitments made at the previous ministerial conferences, these can be characterised as regular work of the FOREST EUROPE process.

Programme Area 1:

Further Development and Updating of Policies and Tools for Sustainable Forest Management

In the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe, paragraph 28, the ministers decided to:

28. *Further develop and update policies and tools for sustainable forest management in order to adapt them, where appropriate, to changing circumstances and to make them fit for addressing new regional and global challenges.*

FOREST EUROPE Expert Group on Implementation of Updated pan-European Indicators for Sustainable Forest Management

In order to support implementation of the above mentioned commitments, FOREST EUROPE Expert Group on Implementation of the Updated pan-European Indicators for Sustainable Forest Management was established. Two face-to-face meetings of the expert group were organized in January 2017 in Zvolen, Slovakia and in October 2017, in Vienna, Austria (hosted by BOKU Vienna). In addition, the expert group worked online through the FOREST EUROPE Communication Platform available at the FOREST EUROPE website.

The expert group discussed possible thematic subsets of forest-related indicators and a set of pan-European key-indicators for sustainable forest management (SFM). The document is available at the FOREST EUROPE website⁷.

The expert group further updated relevant terms and definitions as well as background information for the updated pan-European indicators for SFM, which was subsequently reflected and integrated in the Joint FOREST EUROPE/UNECE/FAO Questionnaire.

Survey on national sets of indicators for SFM

As background information for considerations on subsets of indicators for SFM, FOREST EUROPE – Liaison Unit Bratislava and the Forest Policy Research Network of the European Forest Institute jointly conducted a survey to collect information on the recent use of indicators at national level. The report with the survey results is available at the FOREST EUROPE website⁸.

Elaboration of reporting forms for updated indicators for SFM

Based on the update of the pan-European indicators for SFM, the Liaison Unit Bratislava coordinated update of the reporting form and elaboration of the Joint FOREST EUROPE/UNECE/FAO Questionnaires on quantitative and qualitative indicators. The related definitions in the quantitative questionnaire considered opinions of experts in the FOREST EUROPE Expert Group on Implementation of Updated pan-European Indicators for SFM as well as definitions used for FAO Forest Resources Assessment 2020 (FAO FRA) in order to improve consistency between the regional and global reporting. The reporting forms were pre-filled with data collected for the report State of Europe's Forest 2015 (SoEF) and with data from partners and international data providers (EUROSTAT, UNECE/FAO Forestry and Timber Section). The qualitative questionnaire reflected new structure of qualitative indicators as well as needs for reporting on Goals for European Forests and the European 2020 Targets for Forests (Oslo Goals & Targets).

⁷ https://foresteurope.org/wp-content/uploads/2017/08/Subsets-and-key-ind_Results_15-11-2018.pdf.

⁸ https://foresteurope.org/wp-content/uploads/2017/08/Report_national-sets-of-indicators-for-SFM_16-10-2017.pdf.

Programme Area 2:

Forest Monitoring and Reporting

In the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe, paragraph 27, 31 and 32, the ministers decided to:

27. *Endorse the updated pan-European indicators for sustainable forest management (Annex 1) as adopted by the Expert Level Meeting on 1st July 2015 in Madrid, Spain, and use them in forest policy, forest monitoring, as appropriate, and for collaboration with other sectors.*
31. *Work together as well as with relevant international organisations when appropriate on elaboration and implementing approaches for evaluation of sustainability in forest management.*
32. *Strengthen the fruitful cooperation and collaboration with other processes on criteria and indicators for sustainable forest management, pursuing joint efforts to continue streamlining reporting requirements.*

collection was scheduled until October 2018, further it was extended to May 2019 to enable data provision by countries with recent forest inventories. FOREST EUROPE, UNECE and FAO continued in collaboration on the review of national reports.

Subsequently, the data from national reports were compiled into a database and complemented by data from international data providers for indicators within their competence (e.g. EUFORGEN, ICP Forests, Joint Research Centre of the European Commission - JRC, Pan-European Common Bird Monitoring Scheme - PECBMS) and with general data on land area and population according to UN and World Bank datasets. Methodology and dataset for the Indicator on Forest Fragmentation was elaborated in cooperation between the Liaison Unit Bratislava, FOREST EUROPE expert group and JRC, which also provided a tools for processing and production of analytical outputs.

Collaborative data collection

In line with the calls for reduction of reporting burden and considering the coincidence of FOREST EUROPE and FAO reporting campaigns for SoEF 2020 and FRA 2020, respectively, the Liaison Unit Bratislava cooperated with FAO and UNECE and with other processes on criteria and indicators for SFM on Collaborative Forest Resources Questionnaire (CFRQ). The Joint FOREST EUROPE/UNECE/FAO Questionnaires on the quantitative and qualitative indicators were made available for national correspondents along with the FRA 2020 reporting forms and through the FRA Platform.

For the first time, the pan-European data collection on SFM was carried out in coordination with the global data collection which represents the results of the joint efforts to reduce reporting burden of countries in the region. To support understanding of linkages between pan-European and global reporting forms on forests, the Liaison Unit Bratislava, UNECE and FAO co-organized the Regional Workshop for National Correspondents on 18-24 April 2018 in Geneva, Switzerland. The interface for the joint global and pan-European data collection was presented to more than 40 workshop participants.

The joint reporting interface was launched in March 2018 at the global meeting in Toluca, Mexico. Data

Pilot studies on new indicators

The FOREST EUROPE Expert Level Meeting (ELM) held in January 2015 decided to start the participatory process of updating the pan-European indicators for SFM. The updating work resulted in three new indicators: 2.5 Forest Land Degradation; 4.7 Forest Fragmentation; and 4.10 Common Forest Bird Species.

The Updated Pan-European Indicators for SFM were endorsed at the 7th Ministerial Conference on the Protection of Forests in Europe held in 2015 in Madrid, Spain. Annex of the Madrid Ministerial Declaration containing the updated set of indicators calls for further testing of these three new indicators (data availability and reliability, and feasibility of the indicators).

The Liaison Unit Bratislava in cooperation with external experts elaborated three pilot studies simultaneously with the pan-European reporting, allowing thus the assessment of the real data availability. Subsequently, the studies were reviewed by the FOREST EUROPE Expert Group on Implementation of the Updated Pan-European Indicators for SFM. The findings of the pilot studies should be further considered during the next revision of the set of pan-European indicators for SFM in the light of later data availability. All three pilot studies are available at the FOREST EUROPE website, section "Publications".⁹

⁹ <https://foresteurope.org/publications/>

Production of the State of Europe's Forests 2020 Report

Advisory Group on Preparation of SoEF was established to provide recommendations in the preparation process of SoEF 2020. Two meetings of the advisory group held in September 2017 in Bratislava, Slovakia and in November 2018 in Vienna, Austria (hosted by BOKU Vienna), provided recommendations on the report related processes, content and structure of the report.

The SoEF 2020 has been developed as a collaborative work of many authors, organisations and institutions participating on its preparation coordinated by the Liaison Unit Bratislava. Liaison Unit also conducted administrative and financial part of the process to facilitate the work and liaised with experts invited to contribute to the preparation of SoEF 2020.

Reporting on national and pan-European achievements on Goals for European Forests and the European 2020 Targets for Forests

Reporting on the progress towards Goals for European Forests and the European 2020 Targets for Forests (Oslo Goals & Targets) was based on the specific qualitative data collected within the pan-European data collection and, where appropriate, complemented by quantitative data on selected indicators.

Report on the implementation of the Goals for European Forests and the European 2020 Targets for Forests has been prepared by the Liaison Unit Bratislava based on the above mentioned quantitative and qualitative data and subsequently revised by signatories. The report is included in the Chapter 1 of this publication.



Programme Area 3:

Enhancing the Role of Sustainable Forest Management in a Green Economy

In the Madrid Ministerial Resolution 1: Forest Sector in the Center of a Green Economy, the ministers committed and decided inter alia to:

18. *Exchange information on policy measures and lessons learnt to promote the use of wood from sustainable sources as a key renewable resource in a green and bio-based economy.*
19. *Develop guidelines on the promotion of green jobs in the forest sector in the region.*
20. *Exchange of knowledge and experience in education and training systems and in particular requirements for new skills for forest workers, forest managers and forest owners, in collaboration with the relevant institutions, with a view to identifying possible pan-European recommendations to this end.*
21. *Explore possibilities for applying gender mainstreaming to the pan-European activities mentioned in paragraphs 19 and 20.*
23. *Share information and experience related to science-policy integration to facilitate both policy development and innovation for the long-term competitiveness of the whole forest sector.*

FOREST EUROPE Expert Group on Green Jobs, Education and Training System

The Expert Group on Green Jobs, Education and Training Systems was established focusing on future needs for workforce and new qualifications in the forest sector as well as on other requirements for promoting green jobs such as working conditions, education and skills development, attracting new workers and enabling environment for generating new decent job opportunities and income, equality and diversity in the sector's workforce incl. gender issues, occupational health and safety and data collection issues. The activities of the expert group were conducted in close collaboration with the joint UNECE/FAO Forestry and Timber Section, and led to the preparation of the guidelines on the promotion of green jobs in the region. For that purpose, two face to face meetings took place in January 2017 in Zvolen, Slovakia and June 2017 in Bratislava, Slovakia combined with online consultations with the expert group members and other external experts in the period July 2017 -

February 2019. Moreover, the workshop on this topic was organized jointly with UNECE and FAO in order to collect views of other stakeholders and other sectors for further preparation of the guidelines. In a later stage, Sweden organized joint meeting of the Liaison Unit Bratislava and the expert group with the UNECE/FAO Team of Specialists on Green Jobs in the Forest Sector to discuss possibilities for further showcasing of the prepared guidelines in order to promote their implementation.

Workshop "Promoting Green Jobs in the Forest Sector"

FOREST EUROPE, UNECE and FAO jointly organized the workshop on promoting green jobs in the forest sector, held in the broader framework of the ongoing efforts to enhance contribution of the forest sector to green economy in line with the Madrid Ministerial Resolution 1 and Rovaniemi Action Plan. The event took place on 27-28 June 2017 in Bratislava, Slovakia. Nearly 70 participants from 20 European countries and 9 international organizations attended the workshop.

The main purpose of the workshop was to share lessons learned and stimulate discussions among relevant partners within and outside the forest sector on the forestry workforce and the development of new skills for the European forest sector.

Discussions at the workshop provided an important input for preparation of the guidelines on the promotion of green jobs.

Guidelines on the Promotion of Green Jobs in Forestry

Guidelines are the result of joint work by the joint UNECE/FAO Forestry and Timber Section and the FOREST EUROPE Liaison Unit Bratislava. The document builds on the outputs of the UNECE/FAO Team of Specialists on Green Jobs in the Forest Sector (Joint UNECE/FAO/ILO Expert Network) and the FOREST EUROPE Expert Group on Green Jobs, Education and Training Systems.

The purpose of the guidelines is to assist countries to promote creation of decent green jobs opportunities in forestry and development of skilled, motivated forestry workforce.

To reach this goal, the guidelines present recommendations in five action areas:

Area 1: Workforce data, information, analysis, strategies for human resources development;

Area 2: Making the workforce in traditional forestry fit for purpose;

Area 3: Just transition;

Area 4: Seizing and expanding new opportunities for forests in a green economy;

Area 5: Recruiting, retraining and retraining the workforce of the future.

Workshop “Enhancing the Long-term Competitiveness of the Forest Sector in a Green Economy: Policies for Forest-based Bioeconomy in Europe”

The workshop was prepared in cooperation with the Norwegian Ministry of Food and Agriculture, the European State Forests Association (EUSTAFOR) and the Union of Foresters of Southern Europe (USSE).

The workshop was held on 29 May 2018 in Brussels, Belgium and was hosted by the Mission of Norway to the EU.

The workshop was attended by nearly 80 participants from 17 European countries, the European Commission, the UN organizations, nongovernmental organizations, science and academia, European forestry associations, private industry, forest certification organizations, and others.

The workshop focussed on exchanging views on policy developments and governance related to forest-based bioeconomy; showcased examples of successful innovations; discussed drivers, barriers and possible future actions supportive to economic viability and competitiveness of the forest-based sector.

The conclusions from the workshop are summarized in the report available at the FOREST EUROPE website¹⁰.



¹⁰ <https://foresteurope.org/event/13498/>

Programme Area 4:

Incorporating the Value of Forest Ecosystem Services in a Green Economy

In the Madrid Ministerial Resolution 1: Forest Sector in the Center of a Green Economy, ministers committed themselves inter alia to:

14. *Recognise the key role of forest ecosystem services in the contribution of forests to a green economy.*
15. *Promote the exchange of information on methodologies and practices on the valuation of and payments for forest ecosystem services as well as policy approaches to this end.*
16. *Support the development and possible application of common methodologies for the valuation of forest ecosystem services.*
17. *Make further efforts to have the full value of forest ecosystem services better reflected in forest related policies and tools inter alia national forest programmes or equivalents, guidelines, market based instruments and payments for ecosystem services.*

FOREST EUROPE Expert Group on Valuation and Payments for Forest Ecosystem Services

To fulfil the above mentioned commitments, FOREST EUROPE Expert Group on Valuation and Payments for Forest Ecosystem Services was established to analyse different methodologies and approaches to valuation and payments for forest ecosystem services (FES) including collection of case examples of valuation methods and financial mechanisms for FES implemented in FOREST EUROPE signatory countries. The expert group worked in the period January 2017-December 2018. Two meetings of the expert group took place in Bratislava, Slovakia in September 2017 and November 2018. The main outcomes of the expert group are summarized in the report available at the FOREST EUROPE website¹¹.

Study “Analysis of Different Approaches and Methodologies on Valuation and Payments for Forest Ecosystem Services in the Pan-European Region”

Study on valuation methods and payments for FES was prepared by the experts from Slovak National Forest Centre (as additional in-kind contribution of Slovakia) in cooperation with the Liaison Unit Bratislava and the expert group. The aim of the study was to review the state-of-the-art in valuation and payments for forest ecosystem services in the pan-European region and to create foundation for policy recommendations and conclusions related to the selection of valuation methods, limitations of economic valuation and preconditions for the implementation of payments for FES (PFES) and opportunities and risks associated to PFES.

The study is structured into 3 parts:

- (i) Part I devotes to methods of economic valuation of ecosystem services. Analysis of valuation methods contains description of each method, limitation and benefits of its use and suitability for FES to be valued. Finally, this part deals with factors that determine selection of proper methods.
- (ii) Part II contains the analysis of payment schemes and other market-based instruments used in forestry as well as preconditions for their implementation.
- (iii) Part III describes FOREST EUROPE web-based portal on FES.

The study is available at the FOREST EUROPE website¹².

¹¹ https://foresteurope.org/wp-content/uploads/2016/08/PES_Final_report.pdf

¹² <https://foresteurope.org/wp-content/uploads/2017/08/Analysis-of-different-approaches-and-methodologies-on-valuation-and-payments-for-forest-ecosystem-services-in-the-pan-European-region.pdf>

FOREST EUROPE Web-based Portal on Forest Ecosystem Services

Based on the outcomes of the expert group work, a web-based portal on FES was established to serve as a platform for knowledge and information exchange as well as for sharing case examples on valuation and payments for FES. The FOREST EUROPE web-based portal¹³ provides information and overviews to support decision-making on FES and selecting appropriate

method for their valuation as well as appropriate financing mechanisms. Users of the portal have also the opportunity to explore examples of valuation methods and payment schemes implemented in FOREST EUROPE signatory countries through an interactive map. The web-portal also provides a set of recommendations, opportunities and risks associated with valuation and payments for FES.



¹³ FOREST EUROPE web-based portal <https://foresteurope.org/web-portal-on-forest-ecosystem-services/>

Programme Area 5:

Protection of Forests in a Changing Environment including their Adaptation to Climate Change

In the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment, the ministers committed themselves inter alia to:

9. *Further develop pan-European approaches to forest protection as an integral part of sustainable forest management to address new, varied challenges and threats posed to European forests, including climate change, and to further strengthen the role of sustainable forest management to this end.*
10. *Raise awareness on the vital role of sustainable forest management in protecting forests.*
11. *Increase the work on adaptation of forests and forest management to climate change to prevent and mitigate damage caused by changing conditions at the local and regional scales in order to secure all functions of European forests, including their resilience to natural hazards and protection against human-induced threats, maintaining their productive and protective functions.*
12. *Promote national implementation of strategies and guidelines for dynamic conservation and appropriate use of forest genetic resources under changing climate conditions.*
13. *Continue pan-European collaboration on forest genetic resources through the European Forest Genetic Resources Programme (EUFORGEN).*
14. *Share expertise in the region and reinforce the collaboration between countries on the prevention and fight against forest fires, storms, floods, avalanches, the spread of pests and diseases, as well as handling invasive species and combating desertification, erosion, natural hazards and any other threat of transboundary character.*
15. *Exchange information on management experiences in maintaining the protective functions, taking stock of the particular experiences and solutions under different climatic conditions.*

16. *Exchange experiences on restoration and rehabilitation of degraded forests.*

17. *Promote interaction between research, policy and forest management about forest hazards.*

In the Madrid Ministerial Declaration: 25 years together promoting Sustainable Forest Management in Europe, the ministers committed themselves inter alia to:

17. *Continue efforts to adapt forests to climate change through sustainable forest management.*

FOREST EUROPE Expert Group on Adaptation to Climate Change through SFM

The Expert Group on Adaptation to Climate Change was established to provide expert knowledge to implement the work programme actions in this thematic area. With this aim, the expert group assisted the Liaison Unit Bratislava to conduct a questionnaire survey on the current state of implementation of climate change adaptation measures in SFM, contributed to the preparation of publication "Adaptation to Climate Change in Sustainable Forest Management in Europe" and preparation of policy recommendations for enhancing adaptation of European forests to climate change and promoting pro-active disturbance risk management. To facilitate the work of the expert group, four face-to-face meetings of the expert group took place in September 2016 in Bratislava, Slovakia, in October 2018 in Budapest, Hungary (hosted by the Hungarian Ministry of Agriculture and National Agricultural Research and Innovation Centre), in April 2019 in Prague, Czech Republic (hosted by the Czech University of Life Sciences) and in September 2019 in Istanbul, Turkey (hosted by the Turkish General Directorate for Forestry).

Workshop “Understanding the Contribution of Agroforestry to Landscape Resilience in Europe: How Can Policy Foster Agroforestry towards Climate Change Adaptation?”

The workshop was organized by the FOREST EUROPE Liaison Unit Bratislava with the support of the Hungarian Ministry of Agriculture, the National Agricultural Research and Innovation Centre (Hungary), and in cooperation with the Food and Agriculture Organization of the United Nations. The workshop was held on 9-10 October 2018 in Budapest, Hungary and was attended by around 90 participants from 19 European countries, the European Commission and 7 international organizations representing forest and agricultural sectors as well as other related sectors, where agroforestry integration stands as one of the possible way for sustainable land-use management.

The main purpose of the workshop was to share state-of-the-art knowledge and build mutual understanding and cooperation in the field of agroforestry between agricultural and forest sectors with the aim to increase resilience at landscape level. The workshop discussed possible options for further joint work between agricultural and forest sectors and possible further steps for promotion of agroforestry practices. The workshop conclusions are summarized in the report available at the FOREST EUROPE website¹⁴.

Workshop “Pro-active Management of Forest to Combat Climate Change Driven Risks: Policies and Measures for Increasing Forest Resilience and Climate Change Adaptation”

The workshop Pro-active Management of Forests to Combat Climate Change Driven Risks was held on 3-4 September, 2019 in Istanbul, Turkey with the support of the Turkish General Directorate of Forestry. European Forest Institute provided the scientific assistance to the Liaison Unit Bratislava in the preparation as well as facilitation of the workshop.

The workshop was attended by more than 50 participants from 15 European countries representing governments, the European Commission, the UN

system, science and academia, forest managers as well as downstream industries.

The workshop discussed potential options for increasing the resilience of forests and other forward looking measures for their adaptation to rapidly changing climate. Attention was also given to proactive management of disturbance risks intensified by climate change.

The report summarizing workshop conclusions is available at the FOREST EUROPE website¹⁵.

EFI ThinkForest/FOREST EUROPE event: “How to Respond on Forest Disturbances in Europe”

The event was held on 4 April 2019 in Prague, Czech Republic and organized by EFI ThinkForest forum in cooperation with the FOREST EUROPE Liaison Unit Bratislava. This event aimed to provide better understanding of forest disturbances in Europe and the role that climate change plays in their increase. It connected science to policy, looking at the ecological, economic and social impacts of disturbances, as well as how to respond to them based on the recent experiences. The programme and the presentations from the event are available at the EFI website¹⁶.

Study “Adaptation to Climate Change in Sustainable Forest Management in Europe”

The study provides overview of the state-of-the-art in integration of climate change adaptation measures in forest management at the level of adaptation strategies, policies or policy tools, and their implementation at operational level.

The publication was prepared by the Liaison Unit Bratislava in close cooperation with the EFI Resilience Unit Bonn, and other experts participating in the Expert Group on Adaptation to Climate Change.

The publication also contains set of policy recommendations of the FOREST EUROPE'S Expert Group on Adaptation to Climate Change based on the key messages from the above mentioned workshop, surveys and other work of the expert group.

The publication is available at the FOREST EUROPE website¹⁷.

¹⁴ https://foresteurope.org/wp-content/uploads/2016/08/WS_Conclusions.pdf.

¹⁵ https://foresteurope.org/wp-content/uploads/2016/08/WS_report_CC_Adaptation.pdf.

¹⁶ <https://www.efi.int/policy-support/thinkforest/disturbances/programme>.

¹⁷ https://foresteurope.org/wp-content/uploads/2017/08/Adaptation_to_Climate_Change_in_SFM_in_Europe.pdf.

Programme Area 6:

Enhancing the Social Dimension of SFM in the Context of the Benefits of Forests to Human Health and Well-being

In the Madrid Ministerial Resolution 1: Forest sector in the Center of a Green economy, ministers acknowledged that:

6. *Forests are a source of employment with great potential to generate jobs and income opportunities also through new forest products and services as well as to contribute to rural development, human well-being and social equity, enabling also the long term economic viability and competitiveness of forestry and forest-based industries by serving as sound basis for bioeconomy.*

At the Vienna Ministerial Conference in 2003 the ministers responsible for forests adopted the Vienna Resolution 3 "Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe." The signatories to Vienna Resolution 3 committed themselves, inter alia, to:

8. *Maintain and further develop both the material (e.g. wood in architecture, medicinal plants) and the non-material (e.g. recreation, well-being, health) social and cultural aspects and benefits of sustainable forest management.*
9. *Encourage the identification, expression and communication of the social and cultural dimensions of sustainable forest management inter alia by including them in education and rural development programmes.*

FOREST EUROPE Expert Group on Human Health and Well-being

The Expert Group on Human Health and Well-being established under this work programme area, worked on the development of a study on social aspects of SFM with special attention to the benefits and impacts of forests on human health and well-being. The expert group also assisted the Liaison Unit Bratislava to organise the workshop on impacts of forests on human health and well-being.

Three meetings of the expert group were organized in January 2018 in Bratislava, Slovakia, in June 2018 in Urdaibai, Spain (hosted by USSE), and in October 2018 in Osrblie, Slovakia.

Workshop "Forests for Human Health: Challenges and Opportunities"

The workshop was jointly organised by FOREST EUROPE and the Austrian Research Centre for Forests (BFW) and took place on 8-9 April 2019 in Vienna, Austria. The workshop was attended by around 80 participants including policy and decision makers representing different sectors (forest sector, health and social sector, sport, and tourism), public and private forest owners, entrepreneurs as well as experts from research and academia.

The purpose of the workshop was to enable sharing of state-of-the-art knowledge, experience and lessons learnt in the area of social aspects of SFM with special focus on human health and well-being. Besides the promotion of the benefits that sustainably managed forests provide for human health, the workshop also highlighted the potential to generate green jobs related with the use of these benefits. During the workshop, participants also discussed main barriers and drivers promoting the use of health benefits of forests including the need for cross-sectoral cooperation and stakeholders' involvement.

The conclusions and the workshop recommendations are available in the report at the FOREST EUROPE website¹⁸.

Study "Human Health and Sustainable Forest Management"

The study was prepared by members of the Expert Group on Human Health and Well-being coordinated by the Liaison Unit Bratislava. This publication represents a contribution to the ongoing discussion

¹⁸ https://foresteurope.org/wp-content/uploads/2016/08/Workshop-report-HHWP_ver2.pdf

on the health benefits of sustainably managed forests. The purpose of the study was to provide research evidence and synthesis of knowledge on health benefits of forests in order to enhance the acceptance of such benefits of forests for human health within the forest sector and beyond. To promote the full use of this potential, the study also describes a wide range of concepts and approaches for utilising these benefits. The publication is available at the FOREST EUROPE website¹⁹.

Besides these outputs, the Expert Group on Human Health and Well-being prepared a set of recommendations for supporting the benefits of forests and SFM for improving health of the European citizens. Policy recommendations are available at the FOREST EUROPE website²⁰.



¹⁹ https://foresteurope.org/wp-content/uploads/2017/08/Forest_book_final_WEBpdf.pdf

²⁰ https://foresteurope.org/wp-content/uploads/2016/08/HHWB-Key-conclusions_web.pdf.

Programme Area 7:

Communication and Outreach

To communicate commitments and work within FOREST EUROPE process, the Liaison Unit Bratislava used a variety of communication tools and channels. In 2016, the Liaison Unit Bratislava rebuilt the FOREST EUROPE website (www.foresteuropa.org) to meet the requirements on modern and all-devices-responsive design, as well as to adapt its structure and content to the new FOREST EUROPE Work Programme 2016-2020. Under the new webpage, a communication platform was created to allow online communication within the expert groups (through an online forum).

The Liaison Unit Bratislava continued with the use of well-established social media platforms, mostly Twitter, followed by Facebook, YouTube and Flickr.

To raise the awareness among the public, the Liaison Unit Bratislava developed and released several videos covering a variety of thematic areas, e.g. adaptation to climate change, green jobs in the forest sector or benefits of forests on human health and well-being. These videos can be found at [youtube.com](https://www.youtube.com/user/FORESTEUROPE) under FOREST EUROPE profile²¹.

To support communication efforts of partners, and to communicate forest related topics to general public in line with the FOREST EUROPE commitments, the Liaison Unit Bratislava developed and conducted three campaigns:

#DiscoverForest

On the occasion of the International Day of Forests 2017, the Liaison Unit Bratislava released the campaign called “#DiscoverForest” to public raise awareness of the variety of forest and forest products around us. Joining the campaign was made possible through posting photo or short video with discovering forest and forest products within everyday activities – at home, at work, during relax or sport. The photos and videos were published at FOREST EUROPE social media. The campaign was supported by a short video clip.

Bioeconomy and European Forest Week 2017

On the occasion of the fourth European Forest Week in 2017, the Liaison Unit Bratislava prepared a campaign

“Bioeconomy and European Forest Week 2017 – a great chance to see the role of our forests in education for sustainable development”. The campaign contained several activities – the promoting video teaser, online vote for “TOP forest product in my life” and activity booklet with background information describing bioeconomy and explaining how bioeconomy relates to forestry. Moreover, it contained a tailored didactical approach for environmental education to be applied during the campaign as well as three model activities for pupils. By this, schools were encouraged to join a contest by implementing the activities from the activity booklet and preparing a short report or photo documentation to be sent to the Liaison Unit Bratislava motivated by a chance to win a prize.

Photo contest “Forest for Society”

During the preparation of the Eighth Ministerial Conference on the Protection of Forests in Europe, Liaison Unit Bratislava prepared and conducted a photo contest under the theme “Forests for Society” to raise the awareness about the social aspect of forests and to showcase the necessity to maintain the balance between multiple environmental, economic and social forest functions. Contest participants uploaded photos capturing people in forests, utilizing the forests, supporting forest workers, forest villagers and all society enjoying the forest benefits. First three photos, selected by public voting and by professional panel, received forest-related prizes. The photos received from contest participants will be further used in FOREST EUROPE communication activities.

To increase the awareness about the FOREST EUROPE commitments and ongoing work among experts working at international level, the Liaison Unit Bratislava released statements on the various occasions, presenting the implementation of ministerial commitments and the work of the Liaison Unit Bratislava (e.g. the regional Forum on Sustainable Development for the UNECE Region, Sessions of the UNFF etc.).

Side events at different forums, information brochures and promo materials were also made to raise awareness on FOREST EUROPE and its outcomes.

²¹ www.youtube.com/user/FORESTEUROPE.



Review of the *FOREST EUROPE* Process

The mandate to conduct review of the FOREST EUROPE process was provided by the Seventh Ministerial Conference on the Protection of Forests in Europe, held in October 2015 in Madrid, Spain. The Madrid Ministerial Decision: Future Direction of FOREST EUROPE affirmed the need for the process to be re-examined to respond to current and new challenges and opportunities in order to maintain and enhance its contribution to sustainable forest management in Europe. More specifically, the review was aimed at the FOREST EUROPE structures, procedures and work modalities.

Working Group on Future Direction of FOREST EUROPE

The review was planned, guided and overseen by the Working Group on Future Direction of FOREST EUROPE established at the Expert Level Meeting held in May 2016. France and Ukraine were appointed as the working group co-chairs. The working group was composed of representatives of the FOREST EUROPE signatories and observer organizations, with membership based on interest and availability to contribute. Two face-to-face meetings of the working group were organized on 12-13 October 2016 and on 13-14 June 2017 in Bratislava, Slovakia.

Questionnaire Survey on future direction of FOREST EUROPE

The working group decided to conduct a survey to take stock of signatories' and observers' views on:

- (i) structures, procedures and work modalities of FOREST EUROPE;
- (ii) achievements and added value of the process;
- (iii) interplay with other actors in the pan-European forest policy arena.

The web-based survey took place during a period of January–February 2017. The analysis of the results is available in the Final Report of the Working Group at the FOREST EUROPE website²².

Recommendations for future direction of FOREST EUROPE

The working group considered the outcomes of the survey as key information for further discussion and subsequently for the proposal of recommendations for future direction of FOREST EUROPE.

Overall, the review indicated a high degree of support for the continuation of FOREST EUROPE as a voluntary high-level political process for dialogue and cooperation on forest policies in Europe. Ministerial conference, including its resolutions, declarations and decisions, remains the core elements of the process. Signatories and observers agreed that the current role of the process is appropriate but needs to be enhanced in terms of political relevance and effectiveness. This could be achieved by implementing a set of recommendations in five following areas:

1. Enhancing the political relevance of FOREST EUROPE;
2. Strengthening cooperation at all levels;
3. Enhancing communication and using opportunities for partnership;
4. Maximizing effectiveness and efficiency of structures, procedures and work modalities;
5. Exploring future funding arrangements.

The recommendations were further structured into (i) existing actions that call for continuation of current efforts but need intensification or more proactive approach and (ii) new (novelty) actions which require further work.

The Final Report of the Working Group with the recommendations and the proposed action were presented to the Expert Level Meeting in November 2017 for consideration and adoption. ELM decided to mandate the Liaison Unit Bratislava, under strategic guidance of General Coordinating Committee (GCC), to implement the set of actions based on recommendations listed in the annex of the summary of the key decisions from ELM²³.

²² https://foresteurope.org/wp-content/uploads/2017/08/ELM_2017_1_Final-Report-of-the-Working-Group-1.pdf.

²³ https://foresteurope.org/wp-content/uploads/2017/08/Summary_key-decisions-of-ELM_approved.pdf.

In accordance with this decision, the Liaison Unit Bratislava guided by GCC prepared a draft document “Description of the FOREST EUROPE Structures, Procedures and Work Modalities”, which was discussed and endorsed by ELM in March 2019²⁴.

Other new actions such as rapid response approach and science policy dialogue were partly addressed in drafts of Bratislava ministerial documents and shall be implemented within the next work programme.

The Liaison Unit also made efforts towards increased cooperation with scientists and policy makers and to promote appropriate uptake of the latest research results in the ongoing work of FOREST EUROPE. Regarding the operational adjustments of the Liaison Unit and transition arrangements, the German Federal Ministry of Food and Agriculture, the Slovak Ministry of Agriculture and Rural Development and the Liaison Unit Bratislava have been continuously discussing the plan and details for the transition between liaison units.



²⁴ https://foresteurope.org/wp-content/uploads/2017/08/Summary_key-decisions-of-ELM1_2019_final.pdf.

Follow-up to the Madrid Extraordinary Ministerial Conference

At the Extraordinary Ministerial Conference held in Madrid in October 2015, ministers responsible for forests signed the Madrid Ministerial Decision noting that FOREST EUROPE signatories “acknowledge the work of the Intergovernmental Negotiating Committee and take note of the outcome as contained in the report of the fourth resumed and final session of the Intergovernmental Negotiating Committee” and recognize the draft negotiating text as “a basis for potential further consideration of the Legally Binding Agreement.”

As stated in the decision (2015), representatives of the FOREST EUROPE signatories “at an appropriate time and at the latest by 2020 will explore possible ways to find common ground on the Legally Binding Agreement.”

In order to fulfil the commitment from the Extraordinary Ministerial Conference, the FOREST EUROPE Work Programme 2016-2020 comprised specific action targeted at further discussion on a legally binding agreement on forests in Europe (LBA).

Roundtable Meeting on Legally Binding Agreement on Forests in Europe

As it was decided by the Expert Level Meeting held in November 2017, the Roundtable Meeting on Legally Binding Agreement on Forests in Europe took place in September 2018 in Bratislava, Slovakia. The purpose of the Roundtable Meeting was to exchange views to collect ideas on all options for the procedural follow-up of the Madrid Extraordinary Ministerial Decision.

Participants of the roundtable meeting widely shared the opinion that LBA would have an added value. They confirmed their willingness to discuss the opportunities for LBA again under certain pre-conditions. When discussing possible procedural pathways to follow up of the Madrid Extraordinary Ministerial Decision, the widely preferred option was a new mandate and a restart of negotiation under the UN system. Discussion from the roundtable meeting is summarized in the co-chair summary²⁵.

Outcomes of the roundtable meeting were subsequently submitted to the Expert Level Meeting held in December 2018 to take decision on further procedural steps to implement the Madrid Extraordinary Ministerial Decision.

Ministerial Decision on Resuming the Negotiations on a Legally Binding Agreement on Forests in Europe

ELM decided to resume negotiation on LBA under the UN system and adopted the text of the draft of the Ministerial Decision on Resuming the Negotiations on a Legally Binding Agreement on Forests in Europe²⁶.

On 19 December 2018, the draft ministerial decision was submitted by the Slovak minister through diplomatic channels to the ministers responsible for forests of the FOREST EUROPE signatories in order to endorse the draft ministerial decision. The written procedure took the form of silent procedure with deadline for reactions.

53 signatories including the EU (according to the list of countries in the annex of the ministerial decision) have not raised any objections thus endorsing the draft ministerial decision, while one signatory raised certain observations and concerns.

Subsequently, a letter of the Slovak minister was sent in April 2019 to that signatory to seek clarification on the raised concerns.

To the extent this signatory raised no specific objection to the draft ministerial decision and confirmed its agreement to transfer the negotiations of LBA to UNECE with the support of FAO, the Slovak minister transmitted the Ministerial Decision on Resuming the Negotiations on a Legally Binding Agreement on Forests in Europe, for their consideration and further actions.

Further developments under the UN system

Based on the invitation of FOREST EUROPE signatories, the ministerial decision was brought to the attention of the Executive Committee (EXCOM) of UNECE, at its

²⁵ https://foresteurope.org/wp-content/uploads/2017/08/Cochairs_Summary_RTM_LBA_final.pdf.

²⁶ https://foresteurope.org/wp-content/uploads/2017/08/Ministerial-Decision-on-Resuming-the-Negotiations-on-LBA_final.pdf.

106th meeting on 8 July 2019. UNECE Member States were informed about recent developments related to a possible legally binding agreement on forests in Europe. EXCOM took note of the information provided and requested the UNECE Secretariat to organize informal consultations to consider the matter further.

UNECE Secretariat organized two informal consultations to prepare a draft decision, to be adopted by EXCOM, on resuming the negotiations on a possible legally binding agreement on forests in Europe. The informal consultations took place in Geneva on 31

October – 1 November 2019 and 27-29 January 2020. Further work, however, did not reach consensus on the draft EXCOM decision on resuming these negotiations.

Subsequently, EXCOM adopted Decision No. ECE/EX/2020/L.3 informing that ECE and FAO are not in a position to take any further action relating to resumption of the negotiations on a possible legally binding agreement on forests in Europe. This decision taken by EXCOM was transmitted to the Slovak minister on 3 July 2020, who informed the FOREST EUROPE signatories accordingly.





Part III.

Implementation of the Madrid Ministerial
Commitments at National Level

Background

The following part of the publication reflects on the ways in which individual countries have followed up the ministerial commitments agreed on the European level.

Information provided by the countries was collected through an online questionnaire survey carried out by the Liaison Unit Bratislava during the period December 2019-January2020. Focal points of FOREST EUROPE signatories were asked to report on national actions related to the commitments that arouse from the last Ministerial Conference, convened in Madrid, Spain in 2015.

In total twenty-four signatory countries and the European Commission responded to the questionnaire survey (see the list below). Responses were summarized in a form of national reports. The national reports present a wide variety of national actions and measures (incl. national strategies, programmes, action plans, legislation and other policy instruments) taken by individual countries contributing to the implementation of the Madrid ministerial commitments from 2015 or foreseen in 2020.

The national reports are presented in an alphabetical order and as received from individual countries.

The following countries provided their responses:

- Austria
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Estonia
- European Commission
- Finland
- France
- Georgia
- Germany
- Hungary
- Ireland
- Italy
- Lithuania
- Luxembourg
- Poland
- Portugal
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- Ukraine



Austria



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The Austrian Forest Strategy 2020+ adopted in 2016 promotes the role of forests, SFM, and forest-based products in mitigation climate change. One out of seven fields of actions is especially dedicated to this topic (*relevant also for the Madrid Ministerial Resolution 2*).

To implement the Austrian Forest Strategy 2020+, a work programme with over 200 measures was prepared in the framework of the Austrian Forest Dialogue adopted in 2017. For the presentation of SFM and the evaluation of the Forest Strategy, the set of indicators from the Forest Dialogue was further developed. Actual figures and targets were set by mutual agreement for almost all of the 65 indicators.

The improved Austrian Set of Indicators for SFM is an integral part of the Work Programme of the Austrian Forest Dialogue. Presently, the set comprises 65 indicators. 32 of them are the Updated Pan-European Indicators for SFM (FOREST EUROPE). Other 33 indicators of further national importance were developed as an addition to the Pan-European set. On one hand, the indicator set is used to survey if the state approaches defined the targets. On the other hand, indicators enable an evaluation to which extent certain activities contribute in reaching particular targets and the possible need for action. Additional publications

based on the Austrian Criteria and Key Indicators for SFM were produced in the last years. They also serve as a basis for international reporting.

Under the Austrian Rural Development Programme (LE) 2014-2020, 281 million EUR are available for the forest and water sectors for this period, i.e. 40.1 million EUR per year. The main priorities of LE 14-20 FORESTRY are infrastructural measures (28.2%), measures to protect against natural hazards (34.2%), education (7.7%) and information (12.3%) (*relevant also for the Madrid Ministerial Resolution 1 and the Madrid Ministerial Resolution 2*).

In order to make the public aware of the importance of active forest management, the Austrian Forest Dialogue organizes events with a high degree of publicity every year in addition to the on-going public relations activities. The main objective is to focus the interest on the forest and its actors.

Similarly, to improve the understanding and recognition of the economic, social and environmental benefits of SFM, implementation of forest pedagogics was continuing and expanding. In Austria, there are about 1,400 trained and certified forest pedagogues. Special training programs enable optimal training. Each year about 100,000 pupils take part in a guided forest tour conducted by a certified forest pedagogue. One goal is that every Austrian schoolchild should be able to take part in a forest walk once during their school years.

Regarding raising awareness of the importance of forests in the post-2015 development agenda and their contribution to the achievement of the Sustainable Development Goals (SDGs), an evaluation of the SDGs in the context of SFM was carried out in 2018 within the Austrian Forest Dialogue and together with all relevant stakeholders. The facts and figures show clearly that the sector contributes to reaching all 17 Goals.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In 2019, the Austrian Bioeconomy Strategy was adopted. The objective of the Bioeconomy Strategy is to identify concrete measures for the further establishment of the bioeconomy in Austria in order to generate sustainable growth for bio-based products, bioenergy and related technologies and services. The Bioeconomy Strategy and its Action Plan are both aimed at all relevant players in agriculture, forestry, water and waste management, processing and especially retail

sectors, as well as consumers who should benefit from the advantages of bio-based products.

The Austrian Energy Agency has analysed and graphically processed the “wood flows” in Austria for several years within the framework of the “klimaaktiv Energieholz” programme. In the present project, which was carried out within the framework of “klimaaktiv Nawaro Markt”, the analyses were extended for the first time to include all other types of biomass, thus presenting the biogenic material flows in Austria in their entirety in the form of a flow chart. The aim of this project was, on one hand to enable better understanding of the biogenic material flow and, on the other hand, to provide the basis for decisions on strategic and resource policy issues.

In order to enhance the contribution of SFM in a bio-based low carbon economy, the former Federal Ministry for Sustainability and Tourism together with the Cooperation Platform Forest-Wood-Paper, launched the campaign “Using wood is good for the climate – We make our forests climate-fit” in 2016. The campaign aimed to support forest owners in the sustainable management of their forests and to motivate general public to use more wood. The efficient use of wood as a renewable, climate-friendly raw material and source of energy contributes significantly to the saving of anthropogenic carbon dioxide emissions. It is addressing the national, regional and local levels with a special emphasis on municipalities and includes numerous individual measures. The main aim is to help the forest owners to adapt to climate change, and to foster the interest of forest owners, municipalities as well as general public for SFM within the framework of climate adaptation (*relevant also for the Madrid Ministerial Declaration and the Madrid Ministerial Resolution 2*).

Additional two out of many innovative information campaigns were launched by the Austrian forest-based sector in 2017 and 2018, i.e. “Holz ist genial” (meaning “Wood is Ingenious”) highlights the performance of SFM as well as the positive effects of wood; and “Genialerstoff” (meaning “Ingenious Material”) which is

fostering youth’s interest in the Austrian forest-based sector to encourage young people to work in this field.

In 2017 within the framework of the “Green Care Wald” project the 3rd international conference on Landscape and Human Health, Forest, Parks and Green Care was conducted by the Austrian Research Centre for Forests and the University of Natural Resources and Life Sciences, Vienna. The conference highlighted the effects of landscape-based green care services on human health and well-being and contributed to shaping a new Green Care focus of the Austrian forest policy and research.

In order to foster opportunities for women in forestry, a new mentoring programme was launched by the Federal Ministry of Agriculture, Regions and Tourism in 2020. Within this framework several activities are being organised to highlight the achievements of women in forestry and timber industry to make them visible, both in the professional world and in public.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The national Protective Forest Action Programme was adopted by the Council of Ministers in 2019 and it tackles challenges such as ageing of protective forest stands, coupled with the lack of sufficient natural regeneration, climate change and high maintenance and harvesting costs. Experts from forestry, hunting, communities, nature conservation and tourism reflected on this important topic in order to develop priorities for the implementation of the action programme for the coming years. The action programme helps to improve the Protective Function and Effect of Forests, with a nation-wide setting of measures and with consideration of i.e. climate change, demographics, land use, structural changes, forest genetics, climate dynamics, economy and ecology.

Bulgaria



Four research works recommending specific measures for management of coppice oak stands at regional level were developed with the financial support of state forest companies.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In order to enhance the contribution of SFM in a bio-based low carbon economy, the national plan for energy from forest biomass was developed and adopted in 2018, defining 6 strategic priorities related to effective use of forest biomass as renewable energy source.

In the period 2015-2018 there was a significant progress towards certification of forests as a continuing effort to promote and encourage the use of wood from sustainably managed forests. The area of the certified forests in December 2018 was 1,459,577 ha (34% of the total forest area), of that area of Forest Stewardship Council (FSC) certified state forests was 1,444,204 ha (50% of the area of state forests). A national standard for responsible forest management was specially developed for Bulgaria and approved by FSC. National standards for certification of forests by Program for the Endorsement of Forest Certification (PEFC) were also developed.

To reflect value of forest ecosystem services in policies and market based instruments such as payments for ecosystem services better, three Regional plans for the development of forest territories were developed in 2018, currently in process of public consultations. They define:

- specific outside forest areas and zones where the forest ecosystem services are to be charged;
- types of economic activities which benefit from forest ecosystem services and should pay for them.

Similarly, in the period 2015-2017 two projects were implemented with the financial support of European Environment Agency (EEA) for the development of methodology for identification, mapping and assessment of the state of forest ecosystems and services they provide, for the forests outside NATURA 2000 network.

In order to adapt forest education to new skills and qualification profiles required in the forest sector, forest pedagogy was introduced as a study programme

Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

Regarding the promotion of SFM three new regulations to the Forest Law were adopted in order to improve the implementation of forestry practices and systems of environmentally friendly, multifunctional and sustainable management of all types of forests that increase their resilience to natural disasters and their adaptability to climate change. They apply to all forest territories regardless of their ownership and aim to identify and involve all stakeholders in the planning process; designate areas protected from urbanization; identify specific forest areas in which ecosystem services are paid.

In the area of biodiversity protection, process of demarcation of old-growth forests and the development of corresponding management plans is in progress (in line with Council Directive 92/43/EEC). In 2016 state forests with an area of 109,300.3 ha were designated as old-growth forests.

To enhance the resilience and adaptation of forests to climate change following forestry activities are improved:

- types and methods of felling, conditions and procedures of their performance;
- terms and procedures for felling in river banks;
- sanitary and coercive felling;
- the system of regimes and measures for management of forests included in the European network of protected areas NATURA 2000.

at the University of Forestry. Each year a number of schools and children involved in forest pedagogy events is increasing.

To encourage use of wood from sustainably managed forests, in 2016, a new electronic system for tracing timber from harvesting place to end user was introduced. Since 01.01.2017 the system has been obligatory also for permanent timber depots and wood processing factories. Its implementation reduces the opportunities for illegal timber harvesting significantly.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

In 2019, National Strategy for Adaptation to Impacts of the Climate Change was adopted. The Strategy and its Action plan cover all sectors of national economy, including forestry.

With the financial support of LIFE program, a gene bank for conservation of rare and endangered tree species was established in 2015. New capacities for production of 1.4 million saplings of local species were established

in 2016 mainly aiming restoration of burned and/or destroyed forests due to fires, pests and diseases.

Within Camaro-D project transnational, catchment-based Land Use Development Plan (LUDP) was developed. It serves as a strategic outline for function-oriented land use (including forestry) for the Danube River Basin for sustainable protection of water resources and mitigation of flood risk. The project was finalized with the signature of the Declaration for Cooperation on the further joint proceeding towards the implementation of LUDP, together with the creation of an institutionalized transnational Danube Region Platform for the ongoing partnership within the transnational implementation process.

Within the EFC Working party on the Management for Mountain Watersheds, a national report "The Protective Functions of Forests in Mountain Watersheds in the Context of a Changing Climate" was elaborated by the Bulgarian Executive Forest Agency (as a part of the survey of EFC countries).

As a part of the Bonn Challenge Project "Forest Landscape Restoration South and South Eastern Europe", a study on forest degradation and forest landscape restoration in Bulgaria was carried out in 2019.

Croatia



forests, for remediation of forests affected by tree dying and other disasters, construction of forest fire roads, demining of forests, conservation of gene pools and research in forestry. Fee for Forest Ecosystem Services (FES) also finances, among other things, scientific works, and consequently, innovations in forestry.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Green economy is recognized in the development of the Strategic Plan for Agriculture for the period 2021-2027. The green economy will be, through dedicated operational measures / interventions, encouraged to further develop and contribute to the economy and, in particular, mitigation of intensive depopulation in rural areas (a social component of SFM).

Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The implementation of the National Rural Development Program, in particular Measure 8.5.1. "Conversion of degraded forest stands and forest cultures", transforms degraded forests and monocultures into higher cultivation forms, thus increasing their value and their ability to adapt to climate change.

As part of the Operational Program "Cohesion and Competitiveness", the "Naturavita" project is being implemented, which aims at demining, restoration and protection of forests, forest land and water resources in the project area, which is still contaminated or suspected to be mine-explosive due to war activities.

Project of the Croatian Forests Ltd. "School in the forest, forest in the school" provides regular teaching for primary school students, in an interdisciplinary way, brings closer to the forest, life in the forest and the importance of forest management, and thus emphasize importance of the job of foresters in maintaining stable forest ecosystems. One of the main goals of the project is to emphasize the importance of protecting the environment and to create environmentally educated, aware and conscientious children as a pledge for the future. *(Relevant also for the Madrid Ministerial Resolution 1).*

Fee for Forest Ecosystem Services (FES) remains as one of the main financial instruments for reforestation of karst forests, forest protection, management of karst

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

In accordance with the Amendments to the Ordinance on the Procedure for Exercising the Right to Funds from the Compensation for the Use of Common Forest Functions for Performed Works in Forests, financial allocations for fire protection and demining of forests have been significantly increased (almost doubled).

Draft Strategy for Adaptation to Climate Changes in the Republic of Croatia for the period up to 2040 with a view to 2070 is still in a process of preparation. The adaptation strategy contains projections of climate change in Croatia by the end of 2070 in two scenarios, and two resolutions assess the impact of climate change and vulnerability of the sectors. Based on multicriteria analyses, 85 adaptation measures have been proposed, containing a series of activities. The focus is on vulnerable natural sustainable and socio-economically important sectors with cross-cutting areas: hydrology, water and marine resources, biodiversity, agriculture, forestry, fisheries, energy, tourism, health, spatial planning, coastal area and risk management.

The adaptation strategy, in which forestry defined 12 specific sectorial adaptation measures, aims to reduce the vulnerability of natural systems and society to the negative impacts of climate change, increase the ability to recover from the effects of climate change, exploit the potential positive effects that may also result from climate change.

Cyprus



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The Department of Forests has carried out informational campaign aimed at raising awareness on the values of forests and their contributions to the sustainable development in the long term. Moreover, the Department of Forests together with other stakeholders implement more specific projects for this purpose, such as informational project iLIFE TROODOS. The aim of this project is to raise the awareness on the importance of Mountain Troodos' forests for the development of the local society and economy and its contribution to the achievement of sustainable development of the area. The project provides valuable contributions to the development of the very recent National Strategy for the Development of Troodos Rural Communities emphasizing the provision of ecosystem services from the Troodos National Forest Park.

In 2019, a new programme of the Department of Forests was launched to promote tree planting and the expansion of green areas. The programme named "Planting for Climate" ("Fytevo gia to klima") aims to raise the awareness on the important role of forests and trees in mitigating the impact of climate change

and to encourage the extensive planting of trees by public services, schools, NGOs, companies, groups and other bodies. For the needs of the programme, the Department of Forests has published specific "Guidelines for planting and tending of trees" and provides technical assistance and thousands of seedlings free of charge.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Since 2015, the Department of Forests has enhanced the efforts to make forests more resilient and adapted to climate change. More emphasis has been given in the management of forest biomass and the vegetation cover in fire prone areas, as well as in the resilience of forest ecosystems to damages caused directly or indirectly, either by fires or extreme drought conditions. Moreover, the selection of species to be used in reforestation works after damage, is now stricter and more restricted to be well adapted to the local drought conditions. The forest nurseries have focused on the reproduction of local species, giving special attention on the origin and in-species genetic variability.

Since 2018, an ongoing process was initiated for the preparation and implementation of local plans for the management of forest vegetation, in the concept of reducing the concentrated forest biomass. Areas where limited or no active managerial interventions occurred during the previous decades are now in the focus of the new local plans, in order to increase the resistance of forest ecosystems to damages and to enhance their resilience. Such plans are prepared to cover the state forests and areas at the boundaries of the state owned forests.

In addition, studies were carried out on the genetic variation and genetic structure of the main tree species of the island. The outcomes of these studies are useful tools in the preparation of conservation strategies for mitigating the effects of global warming on the potential growth and survival of local forests and their genetic resources (*relevant also for the Madrid Ministerial Declaration*).

Czech Republic



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The issues of SFM has been covered in several national strategies such as Strategy of Adaptation to Climate Change in the Conditions of the Czech Republic, and Sectoral Strategy with the Outlook to 2030 of the Ministry of Agriculture. There is a strategic document that comprises the development of the Czech Republic as a whole linked to the Sustainable Development Goals (SDGs) – Strategic Framework Czech Republic 2030. There are also two other strategic documents Principles of State Forest Policy and National Forest Programme adopted before 2015. Both are still valid and their goals and targets are relevant for the implementation of the Madrid Ministerial Declaration and both Ministerial Resolutions.

The landscape restoration and the positive role of SFM are supported by several targets in the Sectoral Strategy with the Outlook to 2030 of the Ministry of Agriculture – mainly by Do.5 Support of reforestation with suitable forest tree species at damaged areas, but also by Do.1 Forest land protection, avoiding fragmentation, Do.2 Soil erosion and flood prevention, Do.4 Improvement of degraded forests.

The topic of forests multifunctionality is one of the key messages of the forest pedagogy in the Czech Republic. It is also related to the importance of forests, forest products and services for rural development.

The question of financial resources related to SFM is covered by the Sectoral Strategy with the Outlook to 2030 of the Ministry of Agriculture and the National Forest Programme. Both of these strategic documents contain targets on streamlining financial resources to support SFM.

There is an ongoing effort to promote the use of the pan-European criteria and indicators for forest-related assessments. They are used as a framework to present the results of the National Forest Inventory that are used for policy development.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The issues of forest-based economy and social and environmental benefits are listed in multiple national strategies such as Strategic Framework Czech Republic 2030, National Biodiversity Strategy of the Czech Republic 2016-2025, Sectoral Strategy with the Outlook to 2030 of the Ministry of Agriculture, National Forest Programme, and Principles of State Forest Policy.

The use of wood and wooden products is promoted by several campaigns focusing on sustainably sourced wood mainly executed by the Wood for Life Foundation and partially financed by the Ministry of Agriculture. These campaigns focus on the promotion of wooden buildings or small and medium companies that produce wooden goods.

Furthermore, the Czech Republic is a member of the Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy “BIOEAST”, which promotes sustainable bioeconomies and tackling the contribution of the forest sector and SFM to relevant objectives in this area. Several national grant agencies support innovation and research e.g. the Technology Agency of the Czech Republic (TAČR), Czech Science Foundation (GAČR) and agricultural sector grant agency run by the Ministry of Agriculture (NAZV). The latter has three key priorities (i) Sustainable use of natural resources, (ii) Sustainable agriculture and forestry, and (iii) Sustainable food production.

Regarding the adaptation of education and training systems, at the university level, forestry faculties have the Committee on Industrial Cooperation that provides scientists with information on forest and wood sectors needs and vice versa.

The life-long education in the forest sector has been supported by the network of demonstration objects for SFM and several training plots for the network INTEGRATE.

The forest sector is very socially inclusive from its principle – the range of jobs is very wide, so people can find suitable employment opportunities corresponding to their education or skills.

The issues related to values of forest ecosystem services are comprised in several of the above mentioned national strategic documents.

The exchange of information is based on regular seminars and workshops organized by both governmental (the Ministry of Agriculture and its organizations) and non-governmental organizations (e.g. the Czech Forestry Society).

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The Strategy of Adaptation to Climate Change in Conditions of the Czech Republic and related National Action Plan for Adaptation to the Climate Change cover this topic in several strategic targets. The topic has also

been comprised in the Strategic Framework Czech Republic 2030, the Strategy of Biodiversity Protection in the Czech Republic 2016-2025, the Sectoral Strategy with the Outlook to 2030 of the Ministry of Agriculture, the Principles of State Forest Policy and the National Forest Programme. At the implementation level, a ministerial decree implements the adaptation measures such as tree species composition change and shortening of the rotation period.

The genetic resources of forest tree species are protected in the framework of the National Programme for Protection and Reproduction of the Forest Genetic Resources for the period 2019-2027. The programme provides funding for the protection of forest genetic resources. Moreover, several strategic targets across the strategic documents require the use of appropriate genetic resources in order to enhance the biodiversity in forests or ameliorate the condition of forest soils.

The process of exchanging information on management experience in maintaining protective functions; restoration and rehabilitation are ensured through a network of demonstration objects of SFM. Regular seminars and workshops organized by both governmental (Ministry of Agriculture and its organizations) and non-governmental organizations (e.g. Czech Forestry Society) also play a role in information and experience sharing.

Estonia



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In February 2016, the government approved the Implementation Plan of the Estonian Forestry Development Plan for 2016–2020 addressing a wide range of issues including climate change mitigation measures as well as measures that aim at increasing carbon capture in forests and forest products.

The main objective of the Estonian Forestry Development Plan until 2020 has been to ensure the viability and productivity as well as diverse and efficient use of forests. The Development Plan sets three major objectives:

- wood as a renewable source will be used in industry and energy sector up to the amount of annual increment;
- silvicultural activities will be promoted on one half of the regeneration felling areas and another half will be regenerated naturally;
- at least 10% of forest area will be under the strict protection to maintain a good status of endangered species and populations inherent to Estonia.

The objective of strictly protected 10% of forests has been met and further actions are planned to improve their representativeness.

The Estonian Climate Change Adaptation Plan until 2030 and the related implementation plan were

adopted by the government in March 2017. The plan describes the impacts and adaptation measures by sectors. The measures have been outlined for 8 priority areas. Climate relevant measures are: investments in the infrastructure of forests, increased outreach activities and advice to foresters and forest owners. The activities have been focused on adaptation of forests to climate change, forest protection and forest pathology (relevant also for the Madrid Ministerial Resolution 2).

In this period, Environmental Investment Centre (EIC), through the forestry and environmental awareness programme, has supported numerous thematic activities from the Forestry Development Plan. In the context of raising the awareness of the importance and multifunctionality of forests, the following activities have been supported: communication projects to raise awareness of forestry (e.g. Forests School for decision makers), compilation of information materials (publications “Eesti Mets”, “Baltic Forestry”, etc., and exhibitions), materials about sustainable forest management and promotion of sustainable forestry through trainings, provision of information and studies.

As an example, a total of 2,594 nature education programmes for 51,600 people were carried out in 2018 at the State Forest Management Centre, visitor centres, nature houses and the Sagadi Nature School. Children from nurseries and pupils were able to take part in organised campaign projects that took place three times a year for a symbolic participation fee 1 EUR. More than 270,000 enthusiasts took part in different nature awareness activities, which accounted for 30% more than the previous year.

Within the Natura 2000 seminar for the boreal region held in October 2019 in Estonia experience was exchanged and further cooperation was planned on how to restore forest connectivity, considering the ‘core areas’ within the Natura 2000 network, and surrounding areas, which are often intensively managed by private land owners.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Development Plan of the Energy Sector until 2030 promotes the use of wood, logging residues and other alternative wood resources in energy sector to replace non-renewable energy sources.

The up-to-date stand-wise inventory data of about all state forests and 70% of private forests is stored in

digital on-line Forest Registry. The registry also includes felling and forest damage notifications, field assessments of forest damages, felling and reforestation sites by different government agencies.

Research related to SFM, including protection of biodiversity and sustainable use of forest resources, is funded mainly from state budget.

In Estonia, forest and forest related jobs create up to 10% (ca 35 thousand) of the total employment. The forest sector and value chain induced by the sector provides 10% of Estonian gross domestic product (GDP).

In 2018, a work Assessment and Mapping of Baseline Levels of Ecosystems and Their Services, including the development of the methodology for the Environmental Agency was commissioned by the Environmental Agency. The objective of the work commissioned was to develop methodology for assessing and mapping the status of four ecosystems (forest, mire, meadow and agricultural) and providing baseline levels of ecosystem services, taking into account the Estonian conditions.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The State Forest Management Centre has funded many applied research projects:

- "The impact of different cutting time and practices to pathogens distribution and biodiversity in spruce stands on fertile site types (2016-2019)",
- "Biocontrol of Heterobasidion in spruce forest stands and infection of seedlings on fertile forest site types (2019-2021)",
- "Establishment and surveying of progeny trials in frames of Forest Tree Improvement Programme 2019-2023".

Estonian Research Council is funding the project "Massive invasions of forest pathogens to Northern Europe: early detection of new pathogens, determination of the pathways and modes of their arrival and search of the possibilities of their suppression (2018-2021)".

Moreover, to share good practices, the Natura 2000 seminar for the boreal region took place in October 2019 in Estonia. Experience was exchanged and further cooperation was planned on the related issues including:

- how to deal with species protection, transboundary, on forest land;
- how to address climate change effects. Several habitats are threatened by factors related to climate change. Climate warming will affect the climatic and vegetation zones and will thus change the whole Natura 2000 network in an irreversible way during the coming decades. Thus the whole network should be evaluated in the context of climate change adaptation and mitigation.

European Commission

Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In 2015, the European Commission adopted the Multi-annual Implementation Plan of the EU Forest Strategy, which defines concrete actions, related actors and timing for 2015-2020. Further, the Commission, together with the Standing Forestry Committee, which is the main forum for discussing the EU forests and forest-related issues as well as implementation of the EU Forest Strategy, adopts the Annual Work Plan of the Committee on yearly basis. As stipulated in the EU Forest Strategy, the Commission carried out a Mid-term Review on the Strategy's implementation status at the end of 2018. The mid-term review, in the form of a Commission Report (COM(2018)811) concluded that the majority of actions have been implemented as envisaged.

Rural Development Policy (RDP) of the Common Agricultural Policy (CAP) continues to be the main source of support for the protection and sustainable management of the EU Forests. Under the European Agricultural Fund for Rural Development, for the period 2014-2020 there is 8.2 billion EUR of public expenditure earmarked for forests and SFM thus contributing to the implementation of commitments from the Madrid Ministerial Declaration. Measures, for example, support expansion of forests through afforestation and the establishment and renewal of agroforestry systems, while other measures support fire and natural disasters prevention, restoration after damage, investments for climate change adaptation, etc.

Regarding the research, the work continued on drafting thematic programmes and calls for proposals, and also assessing call responses related to the forest-based sector (forests, forestry and forest-based industries) to support sustainable forest management.

The EU has made funding available to address the protection of forests' natural capital and has provided guidance to Member States, such as Natura 2000 and Forests Guide. The EU biodiversity and rural development policies promote the integration of biodiversity into the forest management plans.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In the European Union, the extended forest-based industry value chains supported 3.6 million jobs in green economy with the turnover of EUR 640 billion (2015). Some 420,000 enterprises were active in wood-based industries in 2015, and these represented 20% of manufacturing enterprises across the EU, while some 0.5 million people worked in the forestry and the logging sector.

The use of forest-based products has been enhanced by the EU's Circular Economy Action Plan and in particular by the "Guidance on the Cascading Use of Woody Biomass" (*relevant also for the Madrid Ministerial Declaration*).

The EU Bioeconomy Strategy and its revision which took place in this period, will further scale-up the role of forests-based biomass to replace non-renewable materials and products, whilst protecting the environment and ensuring circularity.

Through the Mapping and Assessment of Ecosystem Services (MAES), the EU has made efforts to map, assess and value forests' ecosystem services and is developing an EU natural capital accounting system (INCA).

The recast of the Renewable Energy Directive includes new sustainability criteria on forest biomass used for bioenergy production. These criteria and the ongoing work addresses the sustainability of forest-based products, built on the work of the Standing Forestry Committee. Almost 60% of the EU's renewable energy comes from biomass, more than half of that from forestry.

Within this period, the EU also continued in implementation of the remedial actions outlined in "A Blueprint for the EU Forest-based Industries", SWD (2013) 343 (*relevant also to the Madrid Ministerial Declaration*).

The efforts were also aimed at encouraging a culture of innovation, exchange of good practices and know-how, for example, through the cooperation with the Forest-based Sector Technology Platform.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The EU provides significant financial support to address forest fires, pests and other diseases, promoting prevention, supporting coordinated and quick response mechanisms, and assisting in restoration of damaged areas. The EU Civil Protection Mechanism, the Emergency Response Coordination Centre (ERCC), the European Forest Fire Information System (EFFIS), or expert groups, benefit the EU but also other countries.

Finland



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In February 2019, the Government adopted the updated National Forest Strategy 2025. The vision and objectives of the Strategy, originally approved in 2015, remained primarily unchanged, but the project portfolio was updated to correspond to changes in the operating environment. The Forest Strategy aims to achieve the 2030 Agenda goals related to forests and now takes into account climate sustainability and safeguarding of forest biodiversity more clearly than before.

The Government Programme, adopted in December 2019, has seven strategic goals, one of which is Carbon neutral Finland that protects biodiversity. One of its objectives is to strengthen carbon sinks and stocks in the short and the long term. This objective includes action on a comprehensive climate programme for the land use sector. The programme's measures include, but are not limited to, the following:

- safeguarding the management, growth capacity and health of forests;
- advancing afforestation;
- reducing deforestation;
- means to reduce the emissions of swamps and peatlands;

- climate-sustainable management of swamp forests;
- reducing the emissions and strengthening the carbon sequestration properties of agricultural land.

Another objective is focused on halting the decline of biodiversity in Finland which relates to achieving the CBD goals (*relevant also for the Madrid Ministerial Resolution 2*).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The updated National Forest Strategy 2025 is the comprehensive tool for fostering forest sector in green economy.

Besides that, Finland has an ambitious Bioeconomy Strategy (2014), which, due to the highly developed Finnish forest sector, give strong emphasis on the wood-based value chain. The objective of the Bioeconomy Strategy is to push the bioeconomy output up to 100 billion EUR by 2025 and to create 100,000 new jobs. The revision of the Strategy has started in 2020 to take into account the changing operating environment and to ensure synergies with the EU and other international development within the sector.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The National Forest Strategy 2025, which was updated in 2019, is the key strategy also for protecting the forests. The Strategy supports the implementation of the National Biodiversity Strategy and its action plan. As 90 per cent of Finnish forests are available for forestry, it is essential to develop nature management of commercial forests and making this a mainstream part of daily forest management.

France



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

National Forest and Wood Programme 2016-2026 has been implemented in order to reinforce sustainable management and multi-functionality of French forests. Actions and indicators have been defined.

The national publication "Indicators for Sustainable Management of French Forests" is to be updated as the 2020 edition. It will be the opportunity to identify long term changes since 1995.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

National Low-Carbon Strategy (NLCS) was elaborated in 2015 relating to energy transition for green growth. The NLCS serves as France's policymaking road map in terms of climate change mitigation. It is one of the

two pillars of French climate policy, along with the National Adaptation to Climate Change Plan. This plan sets greenhouse gas reduction targets for France over the short and medium terms, referred to as "carbon budgets". Carbon budgets are greenhouse gas limits which may not be exceeded at national level over the five-year periods, expressed in millions of tonnes of CO₂ equivalent¹. This plan puts the Government's ambition into action, presented in July 2017 via the Climate Plan, to accelerate the implementation of the Paris Agreement by setting a target of achieving carbon neutrality within French territories by 2050. This is being understood as achieving the balance between anthropogenic emissions and anthropogenic absorption of greenhouse gas, i.e. that which is absorbed by natural environment managed by a human (forest, prairie, agricultural soil, humid areas, etc.) and certain industrial procedures (carbon capture, storage and reuse). It is consistent with France's commitments to the European Union under the Paris Agreement, as well as national commitments including 40% reduction in greenhouse gas emissions by 2030 compared to 1990. It provides public policy guidelines for implementing the transition to a low-carbon economy, in which the consumption of energy and materials occurs at a soberer pace, with circular economy applied in all sectors.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

National Forest and Wood Programme 2016-2026 is the main policy document used for the implementation of actions and measures resulting from the Resolution 2.

Concerning adaptation of forests to climate change, the National Plan for Adaptation to Climate Change has been prepared the main document to set actions for the period 2018-2022. The goal is to set actions to adapt French territories to expected impacts of regional climate changes before 2050.

Georgia



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The Government is committed to introduce a fully-fledged system of SFM in Georgia that would incorporate and address environmental, social and economic dimensions of sustainable development, including mitigation of climate change, improvement of human welfare, fostering green growth and job creation. Georgia has embarked on a comprehensive reform process to strengthen SFM with several significant ongoing initiatives. The milestone is the draft of new Forest Code elaborated with the assistance of the EU and the World Bank, which was adopted by the Parliament in 2020. The purpose of the Code is to create the legal ground for SFM, sets out general principles and legal tools of forest management and create solid legal basis for adopting secondary normative acts in the sphere of forest management.

In addition, the Forest Information and Monitoring System (FIMS) has been developing to pool and systematize the information on the forests of Georgia, forest protection, reforestation/afforestation, regeneration, forest use, etc. The goal of forest monitoring is to reflect the quantitative and qualitative state of Georgia's forest, to submit the results of the analysis to state entities for improving forest management, as well as policy planning, and to inform the population of Georgia. Monitoring of forests of Georgia can be conducted through the National Forest Inventory (NFI) on permanent sample plots. With the

support of the Federal Republic of Germany, Georgia during 2016-2018 developed a statistical based methodology of forest monitoring on permanent sample plots – the National Forest Inventory (NFI). The implementation of the first NFI started in 2019. The results of the NFI will be available by 2021.

In 2014, Georgia started to elaborate national principles, criteria and indicators for SFM (C&I). The final set of national C&I was presented to the relevant stakeholders in 2019. With the support of UNECE/FAO, Georgia is going to develop the factsheets for the mentioned indicators in 2020. All these efforts aim to strengthen forest policy planning in light of Georgia's national plans, priorities and international commitments. National priorities have been respectively reflected in the Intended Nationally Determined Contribution submitted by Georgia to the UNFCCC. This is a landmark document for Georgia's forest sector as it underlines the country's determination to enhance its forest management and related climate change measures through (a) establishment of sustainable forest management practices; (b) implementation of afforestation/reforestation and assistance to natural regeneration; and (c) expansion of the protected area.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Georgian forest sector has not fully tapped the potential of creating the range of green jobs and facilitating sustainable income for rural population through employing them and engaging them in forestry activities. However, in the framework of the forest sector reform, the Government of Georgia implemented several important actions to promote the forest sector and provide to society decent work conditions in the forest sector.

In 2015, National Center for Educational Quality Enhancement developed new professional standards for vocational education modules in the following specializations: forest worker (silviculture foreman, logging foreman), and forest guard. Three vocational education institutions have been established, which have introduced the new programme since 2017. All those efforts have been made to adapt forestry education, labour skills and qualification of the workforce to the current demands at the national level.

In 2019, to identify the gender-related context in the Georgian forest sector, as well as to find the opportunities for integrations of gender aspect and addressing the existing gaps, the ministry with the support of the German Corporation for International Cooperation GIZ conducted the Gender Assessment study. The given recommendations shall be reflected in relevant forestry policy and management development stages.

In 2020, the Ministry of Environmental Protection and Agriculture of Georgia started to elaborate 5-year strategical development plan of the state forest management body - National Forestry Agency. The strategical directions shall be (a) improvement of the occupational health and safety standards for employees; (b) development and establishment of the job training system to adapt labour skills and qualification of the workforce to the current demands; (c) promotion of social inclusion and gender equality in the forest management body.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Green Climate Fund (GCF) proposal “Enabling Implementation of Forest Sector Reform in Georgia to Reduce GHG Emissions from Forest Degradation and Build Ecosystem Resilience to Climate Change” has been prepared by the Ministry of Environmental Protection and Agriculture of Georgia in collaboration with GIZ. It aims at supporting SFM in three target regions and establishing a self-sustaining market for energy-efficient technologies and alternative fuels to reduce fuel wood consumption that is driving deforestation. The proposed project period is 2020–2027.

Germany



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The Forest Strategy 2020 adopted by the German Government in 2011 reflects the responsibility of the federal government for forests as both natural and economic resource. It is intended for all relevant stakeholders and aims to coordinate many requirements of forests regarding climate, biodiversity, raw materials, recreation and energy, and to solve potential areas of conflict. The Forest Strategy 2020 helps to raise awareness amongst people about forest ecosystem, and the benefits of sustainable forestry. The Strategy shall be further developed towards the "National Forest Strategy 2050" (*implementation of the Forest Strategy 2020 contributed also to the implementation of commitments of the Madrid Ministerial Declaration, Resolution 1 and Resolution 2*).

On 1 January 2019, the Centre of Competence and Information for Forest and Wood (KIWUH) was established by the German Ministry of Food and Agriculture. It is organized as a department at the Agency for Renewable Resources and financed by the German Ministry of Food and Agriculture. Its main tasks are communication, specialized information and consumer information on forest management, use of wood and other forestry related topics.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Climate Action Plan of the Federal Government calls to closely link efforts to increase the contribution to climate change mitigation provided by forests, sustainable forestry and intelligent use of wood with the requirements of resource and material efficiency. In light of the major social and political challenges, the use of wood as the most important renewable resource is of particular significance. Sustainably produced wood from structurally rich forests has an increasing potential to replace materials produced on the basis of fossil resources and to conserve energy from finite resources while simultaneously mitigating climate change. The Charta for Wood 2.0 denotes the milestone in the German Climate Action Plan 2050 and gathers stakeholders from different fields of expertise to discuss relevant topics. The exchange among experts constitutes the basis for implementing measures and allows for more specific use of funding, research and communication for example in the field of construction, bio- and circular economy. Results from the process can also support developing national strategies and programs (*relevant also for the Madrid Ministerial Declaration*).

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

German forestry and forest industries are playing an important role in combating climate change, they currently prevent the release of approx. 126 million tonnes of CO₂ per year into the atmosphere. The Forest Climate Fund (established under the joint responsibility of the Federal Ministries of Agriculture (BMEL) and the Environment (BMUB) by the German Bundestag in 2013) is part of the programme associated with the German Energy and Climate Fund. In 2018, the Funds' budget was raised to 25 million EUR per year. Measures supported under the Forest Climate Funds, i.e. R&D-projects and demonstration projects are aimed at tapping the potential of forests and timber for CO₂ reduction and energy generation, as well as measures aimed at adaptation of German

forests to climate change. Wherever possible, the intention is to harness synergies between climate protection, preservation of biodiversity and the adaptation of forests to climate change (*relevant also for the Madrid Ministerial Declaration*).

In Germany, the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK) is an essential element of the National Strategy for the Development of Rural Areas and constitutes thematic and financial core of many Lands Programmes. Financial support within the framework of the Joint Task aims to make the agricultural and forest sectors

efficient, competitive and oriented towards future challenges. It comprises financial support for the restoration of forests affected by calamities such as storms, drought and insects and silvicultural measures towards the adaptation of forests to climate change. In 2019, the German Federal Government decided to spend additional 478 million EUR into the restoration and adaptation of private and community forests (until 2023) as the part of its national Climate Action Plan 2050. The federal budget is co-financed by the Lands, so in total 800 million EUR can be made available to private and community forest owners until 2023 (*relevant also for the Madrid Ministerial Declaration*).

Hungary



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

As a continuation of the National Forest Program 2006-2015 (NFP) the National Forest Strategy 2016-2030 (NFS) was adopted by the Government in October 2016. The strategy maintained the main objectives and the ten focus areas of the previous NFP while updating the priorities and reflecting to the new developments at international and national levels. Special attention is paid to rural development measures to increase the forest and tree cover (afforestation and tree planting), especially under adaptation measures to climate change and to research and communication.

The Parliament adopted the Second National Climate Change Strategy (2018-2030) in October 2018 including the National Decarbonisation Roadmap and the National Adaptation Strategy. Short, medium and long term adaptation and mitigation measures of the forest sector are the key elements of the strategy which is implemented through biannual action plans. Forestry measures of the first action plan (2012-2020) focus on afforestation and tree planting, and on developing a decision support system to adaptation measures, as well as, an early warning system of forest damages based on remote sensing.

In the frame of the National Clean Development Strategy and to promote the implementation of the Paris Agreement, the Government agreed to set a carbon neutrality target to be achieved by 2050.

The national forest act (2009) was revised and amended in 2017. The updated legislation maintains the traditionally strict control on SFM while the flexibility of

the forest management planning system was improved, procedures were simplified especially in private forestry. The forest act put more emphasis on the protection of biodiversity. Among others the naturalness of forest stands should be improved in line with the adaptation of forests to climate change.

A National Climate and Nature Conservation Action Plan was approved by the Government in 2020 with eight main focus areas that also incorporate afforestation measures and set the target of 27% forest and tree cover of the country by 2030.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Visegrad Group in cooperation with 12 Central-East European countries launched the Bioeast Initiative aimed to improve a knowledge-based agriculture, aquaculture and forestry under the concept of bioeconomy. Main objectives of the initiative are to initiate cooperation and the development of knowledge-based policies, to identify common challenges and to validate common research topics, to initiate strategies, improving of skills and development of synergies. As the key activity, the initiative promotes regional, national, EU and international funding opportunities to develop innovative technologies, methodologies and approaches, to increase visibility and to draw attention to specific challenges and research potential of the macro-region, through involving society and promoting public awareness.

Elaboration of the National Bioeconomy Strategy has started in 2020 where forestry is among the main priorities besides agriculture.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The National Forest Strategy and the Second National Climate Change Strategy give guidance and define several actions and measures on the adaptation to climate change and on the protection of forests to maintain and improve their resilience and stability. Amendments of the forest act (2017) strengthened and upgraded the former National Forest Protection Measuring and Monitoring System to a National Forest Monitoring System as a reliable and general information basis of forest protection, as well as, for controlling the implementation of SFM in Hungary.

Ireland



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The Forestry Act and related Forestry Regulations in Ireland aim to make further and better provision in relation to forests and forestry and to provide for the development and promotion of forestry in a manner that maximises the economic, environmental and social value of forests within the principles of sustainable forest management.

In 2010, The Department of Agriculture Food and the Marine (DAFM) established a Forest Policy Review Group to update and renew strategic policy framework for the future development of the forest sector in Ireland (launched in mid-2014). The COFORD Forest Policy Review Group was established by the Council for Forest Research and Development (COFORD) in 2016 to track the implementation of the Forest Policy recommendations and to monitor and report on progress in implementing the stated Strategic Actions.

The strategic goal of “Forests, products and people – Ireland’s forest policy – a renewed vision” is to develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society and which accords with the FOREST EUROPE definition of SFM. The renewed strategy foresees expansion of the forest area (from 11% currently to 18%), in order to provide for increased and sustained levels of wood production, environmental benefits, including climate change mitigation in the continued sustainable management

of the national forest resource, including integration of detailed environmental considerations, and cost effective mobilisation of the forest resource.

The agroforestry measure was launched in 2015 which is a part of the afforestation package including 12 different grant and premium categories.

Neighbourwood scheme was established in 2017 with the aim to support community groups working with Local Authorities to create “close to home” woodlands for recreation. The Neighbourwoods demonstrate the social benefits of forestry which is good for promoting forestry in general. A series of Neighbourwood seminars have been held across the country showcasing the Roundwood Neighbourwood project. Attendees include community groups, local authorities and forestry companies.

Different kinds of promotional campaigns were carried out during 2018-2020 with the aim to: raise public awareness of the social and health benefits of forestry; encourage people to use forest resources for their well-being; education of the next generation of young farmers in forestry; active forest management and encouragement of forest owners to develop multifunctional use of their resources; increasing planting levels etc. The successful campaigns include a woodland festival, open days for native woodland establishment, promotion of hardwood in the bio-economy and numerous school based initiatives to teach school children about the importance of biodiversity, forests and climate change.

Ireland’s Forestry Programme details aid for funding forestry related activities for the period 2014-2020. The main driver of the layout of the programme has been the European Commission’s “Guidelines for Strategic Programming for the period 2014 –2020”. As the first step, the following four needs were identified in relation to Ireland’s forest sector:

- Increase on a permanent basis, Ireland’s forest cover to capture carbon, produce wood and help climate change mitigation;
- Increase and sustain the production of forest-based biomass to meet renewable energy targets;
- Support forest holders to actively manage their plantations;
- Optimise the environmental and social benefits of new and existing forests.

Financial support of the forest research through COFORD Programme which provides funding for “public good” research to Irish RPO’s (research performing organisations) on a competitive basis. The COFORD programme is also used to fund Irish

researchers who have been successful in competitive transnational research calls including various European Research Area Networks (ERA-Nets).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In March 2018, the government published a National Policy Statement on the Bioeconomy. It sets out the vision, common principles, strategic objectives, and the framework for implementation to deliver on this vision for the bioeconomy in Ireland. Following the publication of the policy statement a high level bioeconomy implementation group was established, co-chaired by DAFM and the Department of Communication, Climate Action and Environment. The implementation group will address a number of key actions for the future success of the bioeconomy in Ireland including establishing a network to inform the future development of the bioeconomy and to raise awareness of the bioeconomy and its products.

The Forest Research Ireland Report (FORI) captures specific policy, knowledge and production focused research topics and ideas relevant to the needs of forest stakeholders. This process was initiated by the COFORD Council in 2012 and has been facilitated by the DAFM & Codex Division with wide stakeholder involvement including public consultation. FORI identifies seven thematic areas within which the Strategic Research Agenda is set out.

- Expansion of the Forest Resource - sustainable increase in productive area;
- Productivity - sustainable improvements in crop productivity and quality;
- Resource Utilisation - stand modelling, recovery, supply chain, utilisation and optimisation;
- Adding Value - wood processing and product development;
- Forest Resource Protection - protecting the resources from biotic and abiotic threats;
- Ecosystem Services - the benefits people obtain from a forest ecosystem;
- Climate Change - impact adaption and mitigation - responding to changing climate.

The COFORD Council has produced a report on the Forest Bioeconomy outlining its potential from an Irish setting in 2017.

COFORD DAFM also launched its vision for moving the utilisation of timber up the value chain in its document entitled "Growing the Irish Forest Bioeconomy". DAFM currently funds research in product development. For example, the Innovation in Irish Timber Usage project (IITU) investigated the potential for new add-value timber construction products such as Fibre-Reinforced

Polymer (FRP) reinforced timber and Cross-Laminated Timber (CLT).

DAFM provides funding for the continuous professional development of foresters where participants get rewarded for attending courses on a wide variety of topics. Curriculums receive ongoing development to reflect changing forest practices and new technologies.

Ireland also supports the development of policies and practices that improve standards in health and safety. The Irish Forestry Industry Transport Group has published a number of standards targeted at improving safety in the mobilisation and transport of timber e.g. Round Timber Transport Guidelines for Hauliers and Drivers, Managing Timber Transport Good Practice Guide and safe securing of loads guidelines. The Health and Safety Authority of Ireland has also published a Code of Practice for Managing Safety and Health in Forestry Operations.

Ireland supports research and exchange of information in a wide range of areas associated with ecosystem services. Valuing ecosystem services can be difficult and work is ongoing in this area. The Woodland Environmental Fund has recently launched by the Department of Agriculture facilitates businesses to provide additional funding to woodland owners in the provision of ecosystem services. The creation of new woodland in Ireland receives funding and annual payments which recognise the importance of forestry.

Several schemes have been established as well. Continuous Cover Forestry (CCF) Scheme is encouraging a more environmentally sustainable way (incl. biodiversity) to manage forests for wood production, based on the ongoing realisation of small quantities of valuable stems, versus one big windfall at the end of the rotation.

2nd Thinning Scheme is focused on undertaking a silviculturally appropriate 2nd thinning to improve the quality and value of retained trees (by removing poorer quality stems and redirecting growth onto better quality ones).

Deer Fencing Scheme, on one hand, protects the forest crop from damage from excessive browsing, including shoot damage and stem damage / bark stripping. In parallel, it also excludes excessive grazing of other components of the woodland ecosystem, especially the ground vegetation and scrub layer, both of which can be badly denuded if deer numbers are very high.

Woodland Environmental Fund (WEF) provides an opportunity for businesses to partner with the Government and Irish landowners and get behind the national effort to plant an additional 5 million native trees between now and 2020. The WEF ties in line with the Department's existing afforestation scheme which covers 100% of the cost of establishing native woodlands and also pays an annual premium to the

landowner of up to €680 per hectare payable each year for 15 years (€16,000/ha). The WEF involves an additional once off top up payment of €1,000 per hectare paid by the business to the landowner.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The Climate Action and Low Carbon Development Act provides the statutory basis for the national objective to transition to a low carbon and climate-resilient economy by 2050. Under the Act the Minister for Communications, Climate Action and Environment must make and submit a series of successive National Mitigation Plans and National Adaptation Frameworks to Government. Ireland's first Statutory National Adaptation Framework (NAF) was published in 2018 and sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of any positive impacts.

The Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan was published in 2019 by DAFM. It sets out the projected changes in climate focusing on those identified as most likely to impact the agriculture, forest and seafood sector. In the Plan a range of adaptation actions have been included in to deliver on the objectives of the Plan. Priority risks and possible consequences are identified and listed in it as well. The overarching objectives of the Plan are to:

- (I.) ensure a joined-up approach to adaptation planning in the Department of Agriculture, Food and the Marine,
- (II.) raise the awareness of the impacts of climate change in the agriculture, forest and seafood sector,
- (III.) reduce vulnerability of the agriculture, forest and seafood sector to main climate impacts and seek to increase resilience,
- (IV.) embed adaptation planning in agriculture, forest and seafood sectoral policies.

Climate change adaptation is integrated into a range of DAFM policies, measures and schemes covering the conservation of certain species, the utilisation of efficient breeds by maximising genetic resources, prevention of the potential introduction of pests and diseases, monitoring and controlling pests and diseases, and supporting decision making and risk management in industry.

The Plant Health and Biosecurity Strategy 2020 – 2025, published by DAFM in 2019, sets out the importance of

plant health biosecurity for Ireland as well ensuring that all relevant stakeholders are aware of the risks to plant health in Ireland, and their role and responsibilities to reduce that risk. It focuses on working closely with key partners including other government departments and agencies, industry, local authorities, nongovernmental organisations (NGOs), scientific community, educators and all citizens.

Sustaining and Developing Ireland's Forest Genetic Resources (FGR) sets out the national strategy for the sustainable use and conservation of FGR.

The Forest Genetic Resources Reproductive Material: Seed Stand & Seed Orchard Scheme was launched in 2015. The primary objectives of the scheme are to: increase the resilience, productivity and quality of Irish forests; increase self-sufficiency in tree seed production; provide for in-situ and ex-situ conservation of forest genetic resources and provide breeding populations of designated tree species.

The Forestry Standards Manual of the DAFM supports the Forestry Programme for the period 2014 – 2020. The manual sets out an accepted list of species, provenance and origin for the sustainable use of forest reproductive material.

Ireland is an active member of the EUFORGEN programme and has developed and maintained a network of forest gene conservation units.

The Department of Agriculture, Food and the Marine has launched a number of initiatives aimed at the exchange of information including:

- (I.) CLIMADAPT is a web-based decision support system based on Ecological Site Classification developed specifically for Irish Forestry. The objective is to provide a Decision Support System (DSS) for forest managers and policy makers, using soil and climatic information that can be used to assess species suitability and yield for individual sites under current and future climate change scenarios.
- (II.) Forestry Knowledge Transfer Groups are a well-established method of sharing knowledge and best practice, which have been established in Ireland's private forest sector. They provide participants with the essential tools to mobilise their timber resource and help to maximise the income from their holding.

Since 2014 Ireland, led by DAFM has been involved in a number of initiatives aimed at improving responses and resilience to emerging forests' threats both in Ireland and at wider EU level.

Italy



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

Italy has implemented several commitments of the Madrid Ministerial Declaration by promoting, through regional programming instruments and Rural Development measures, forest planning and voluntary certification (PEFC and FSC) in order to increase forest land management in implementation of the SFM principles.

Ultimately, in the new National Framework Law on Forests (Legislative Decree 34/2018), and in the new National Forestry Strategy (NFS), SFM is placed as a fundamental tool to ensure the provision of ecosystem services (*relevant also for the Madrid Ministerial Resolution 1*).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Italy has implemented the commitments signed with the Madrid Ministerial Resolution 1 by setting up a partnership table of the Wood Forest Chain at the

Ministry of Agricultural, Food and Forestry Policies composed of the main social, industrial and institutional stakeholders in order to identify initiatives and good practices of Green Economy and enhancement of social values of forests.

Ultimately, the importance of the forest supply chain and the cascading use of wood products is highlighted in the new National Framework Law on Forests (Legislative Decree 34/2018) and in the new NFS. In addition, process and product innovation is promoted and supported with regional planning instruments and Rural Development measures in order to increase the rational use of wood products.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Italy has implemented the commitments of the Madrid Ministerial Resolution 2 by supporting specific actions and management interventions both with national, regional (Rural Development Programme) and European (LIFE) financial instruments aimed at the conservation and protection of forest habitats at risk in order to increase their ability to adapt to the impacts of climate change.

Thanks to the new National Framework Law on Forests (Legislative Decree 34/2018) and to the new NFS, the protection of newly formed forests on agricultural land and abandoned pastures and the protection of old forests is promoted, defining the criteria for the identification and management of such types of forests; the National Network of Italian Old Forests was also established.

Lithuania



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

During 2017-2018 Lithuania successfully implemented the reform of state forests management through the consolidation of the 42 state forest enterprises and the state institute of forest management into one state forest enterprise. This enterprise is responsible for the management of Lithuanian state forests, including all related activities from forest planting up to the preparation and selling of round timber. The reformed management of state forests ensures better SFM in state forests, improves profitability, competitiveness, efficiency of the forest sector and enables conditions to effective mobilization of resources.

National Forest Programme of Lithuania, adopted in 2012, covers forestry development strategic objectives and concrete actions for achieving these objectives until 2020. Therefore, the Ministry of Environment of the Republic of Lithuania has organized open forest policy discussions, including high level conferences in 2020, involving participants from all forest-based interest groups, as well as cross-sectors. The aim of these events is to discuss the future of Lithuania forests after 2020: how to increase multiple benefits provided by forests to society, as well as how to ensure the implementation of SFM in all forests of the country, especially considering global circumstances and climate change. These events represent the basis for preparation of a new national forest programme.

Lithuania prepared Integrated National Energy and Climate Action Plan based on holistic and cross-sectoral approaches with other forest related policies and includes measures in forestry on climate change adaptation and mitigation for the period 2021-2030 such as afforestation (up to 8 thousand ha per year), reconstruction of forests with the regard to climate change, protection and sustainable use of ecosystems, additional production of biofuel, support for restoration of forests damaged by fires and other natural disasters, prevention of natural disasters, planting of short rotation trees, promoting related science and innovation, other different forestry activities (*relevant also for the Madrid Ministerial Resolution 2*).

Lithuania is actively preparing nature management plans for Natura 2000 sites as for now as "stand alone" documents, but with the view to become an integral part of standard forest management plans in the future. As Lithuania is in boreal biogeographical region, forest restoration practices in that region are very much related to the controlled burning methods (*relevant also for the Madrid Ministerial Resolution 2*).

Lithuania has been studying restoration practices from neighbouring countries of the boreal region (Finland, Sweden, Estonia and Latvia) and participated in many joint activities concerning that topic. Necessary legislative amendments were introduced into Law on Ambient Air Protection in 2016. Practical implementation of that method has not started yet, although some pilot demonstrations are planned (*relevant also for the Madrid Ministerial Resolution 2*).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The study on Lithuanian bioeconomy development was prepared in 2017 and provided the base for preparation of Lithuania's Bioeconomy Strategy. Preparation of such a strategy is still under consideration.

The share of renewable energy in the country's total energy balance is about 26%. The major source of renewables comes from forest biomass. The biggest increase of the use of forest biomass was in centralized heating sector - it increased from 17% up to 70% over 10 past years and caused about 25% decrease of heating price (compared with the usage of natural gas). Investments in and promotion of the biomass sector have created additional 2,500 green jobs since 2016, most of which were located in regions.

One of the examples of the promotion of the use of wood in construction is scientific research project “Benchvalue” implemented by Lithuania’s scientists in 2019 as part of 7th European Union joint research program ERA-NET “SUMFOREST”. The goal of this research project was to create universal method which would allow to compare the use of renewable and non-renewable materials and evaluate the effect of non-renewable materials substitution by wood to sustainability and climate change mitigation as well as social and economic impact. The results of the research provided valuable information for decision making bodies to consider possible amendments of regulations with regard to construction legislation, strategies, etc.

Lithuania doubled national financing from General Forestry Financing Program for the forest scientific research (applied forest science) since 2015.

Lithuanian Ministry of Environment’s website has a dedicated section on ecosystem services, which also provides general information on valuation and payments for ecosystem services, among other topics. Regular communication with the community of experts on ecosystem services (via newsletters and dedicated events) is also maintained including the exchange of information on methodologies and policy approaches, as well as the newest developments in this area, nationally and at the European level.

In addition to that, in Lithuania there are several on-going projects dedicated to (forest) ecosystem services

assessment and valuation (the former are currently more dominant).

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

In order to implement the significant tasks of the National Forest Program for forest genetic resources the specific measures were approved for conservation and appropriate use of forest genetic resources, which also took into account the climatic conditions. Additionally, mandatory working norms are set for the managers of forest genetic resources. Also different scientific research activities related to forest genetic resources are financed from the General Forestry Financing Program (state budget) each year. While preparing the strategic forestry policy document after 2020 it is foreseen to strengthen conservation and appropriate use of forest genetic resources acknowledging their important role in the context of climate change.

In order to promote interaction between different stakeholders about forest hazards Coordinating Council on Forest Sanitary Protection provides the opportunity for discussion on forest related challenges and hazards. The council includes representatives from government, private and state forest managers, non-governmental organizations and scientists.

Luxembourg



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In 2018 the Luxembourg Government has adopted a new holistic forest law project with the view to enhance the protection of forests, particularly biodiversity and resilience to promote the multifunctional use of forest goods and services, including options for payments for ecosystem services. The aim of this project is to improve the rights and duties of stakeholders, including adaptation measures to climate change, and to assign special responsibilities on ecosystem protection to public forests by applying close to nature forest management. Additionally, a modification of the nature conservation law in 2018 provides for an enhanced protection of forest biotopes.

A special partnership on rising the awareness on SFM has been setup in Luxembourg between the public sector and ENGOs in the framework of the International Day of Forest and the International Day of Trees.

New forest measures focusing mainly on resilience improvements were included in the national cross-sectoral adaption strategy to climate change 2018-2023. The focus is on the conversion of non-native conifer plantation monocultures to mixed deciduous forests, the protection of forest soils and the enhancement of biodiversity, including genetic diversity (*relevant also for the Madrid Ministerial Resolution 2*).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In 2016 the Luxembourg has created the National Wood Cluster within the cross-sectorial Luxinnovation Organisation, as a platform for exchange of knowledge and information between all players in the forestry and wood-processing sector, spanning from wood production to the end consumers of wood products. Objectives are to optimise the market release and the use of wood resources, to create and enhance regional wood product chains, to support and diversify the wood processing sector, to promote the use of wood in construction and to stimulate product and process innovation.

A public-private partnership research project has been started in 2017 at the Luxembourg Institute of Science and Technology to create a tool for the valuation of forest ecosystem services and their payments.

The National Institute for Forest Education and the National Forest Agency have launched a cooperation project in 2018 on data exchange and experimental plots to enhance the training and capacity building in the forest sector.

Luxembourg will review its National Forest Programme in 2021 with a view to enhance climate change adaptation and the social components of SFM.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Luxembourg has contributed to the European Forest Genetic Resources Programme. A decision tool for improved use of forest genetic material is under preparation in cooperation with the Wallon Region in Belgium.

Cooperation on forest hazards, including climate change adaptation and forest fires, has been launched in 2019 with a Forest Research Centre in Germany and the National Disaster Management Organisation.

Poland



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

Poland has been actively supporting implementation of SFM, its principles and actions in terms of accountable and management of forest resources as well as protection of biodiversity. In order to demonstrate this, a national repository of information on forests and forest management called Forest Data Bank (FDB) was created. This web portal provides information on forest management, forest condition and its changes regardless the ownership from. This information is interrelated with the databases on nature conservation and the state of natural environment. Since 2015 the FDB has been further developed and enhanced. Additional data set types have been introduced, new forms of public communication have been created in the FDB web portal. A special section dedicated to forest tourism has been created, supporting efforts of the State Forests administration to promote recreational use of forests. All information can be easily accessible also by a dedicated mobile app mBDL (mFDB). The app has played an important role in promoting the forest sector in Poland.

Raising social awareness on reasonable and responsible use of all forest functions has become regular part of the forestry daily work. The same with educational activities organised by foresters on the regular basis. These include various kinds of outdoor lessons and guided tours, lessons in forest classes, educational events and actions, exhibitions, forest contests, fairs, etc. Such variety of educational

activities is possible thanks to the commitment over 9000 foresters who assigned part of their worktime to forest education. These coincide with the development of infrastructure. In the State Forests one can find: 1011 educational trails, 562 educational shelters, 269 educational classrooms, 65 centres of environmental education. Social media has become more in use for outreach activities. The State Forests run website www.lasy.gov.pl, as well as account at Facebook and Twitter.

Number of conferences took place over the period and those addressed the main political development and challenges, including Agenda 2030 and Sustainable Development Goals as well as climate change issues. The topic of sustainable development was often addressed and 100 forest education leaders was trained in this area.

A pilot program to create a national set of criteria and indicators (C&I) for sustainable forest management has been conducted. The resulting set of C&I is based on the pan-European C&I and it will be the starting point of a participatory process to discuss and shape the final set of C&I.

In order to increase quality of forest management planning, a set of guidelines for private forests has been developed and published. The guidelines include forest management planning manual, technical standards for database format, GIS data model and cartography. They are accompanied by a free-of-charge software package containing auxiliary tools.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Poland is exploring new opportunities for the sector's development in the context of a socially inclusive transition to a green economy and the implementation of the international commitments. One of the example is the project "Polish Wooden Houses live in harmony with nature". This project is of great significance to the development of non-urbanized areas and the increase of employment. This project is aimed at reducing CO2 emissions through wider use of timber; promoting wood in modern energy-saving technologies used in the construction industry; and identifying legislative barriers hindering the development of wooden building construction. The project is a core part of the national Strategy for Responsible Development, especially of its flagship project Ecobuildings. It also complements the government program "Mieszkanie plus" ("Flat+"),

thus responding to an insufficient number of flats on the Polish market, especially for young families. The project is also related to the creation of an offer of preferential mortgages for ecological construction. The partner of the program is Bank Ochrony Środowiska (Environmental Protection Bank) which has prepared an offer of mortgages for individuals interested in ecological wooden construction.

In relation of the value of forests and services they provide, development of a comprehensive method on valuation of forests and forest estates, as well as forest ecosystem services has been launched in 2015 by the State Forests in cooperation with the Forest Research Institute. One of the expected outcomes of the work are recommendations on possible legal changes so as it would be possible to apply the developed valuation methods in daily practice of the State Forests and other actors in the forest sector.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The State Forests that manage 95% of all public forests and 77% of all forests in Poland plays a leading role in responding to challenges in practice. In 2016, the „Forest and forestry adaptation programme for climate change until 2020” was adopted as an integrated programme of the State Forests. It sets three general objectives: (i) reduction of susceptibility of forest ecosystems to threats related to drought and strengthening water retention functions; (ii) reduction of damages to forest ecosystems related to water erosion in forest areas; (iii) development and modernization of the forest fire prevention system.

To address climate change challenges and its consequences for forests, the Director General of the State Forests appointed, in 2019, a Task Force for

the development of a comprehensive program for preventing forest dieback in Poland and for mitigation measures in the perspective of 2030. The team's work should be completed in 2020. *(Relevant also for the Madrid Ministerial Declaration)*

Another example is the „Carbon Forest” project launched in 2016 by the State Forests. Its primary aim is to promote contribution of forests as one of the most cost-effective options to reduce the concentration of greenhouse gases in the atmosphere. The project aims at enhancing carbon sequestration by forest ecosystems (support in achieving UNFCCC and the Paris Agreement goals). *(Relevant also for the Madrid Ministerial Declaration)*

Specific forest management practices are to be employed in order to enhance carbon stock in forests. These include for example developing multi-annual programs for rebuilding a forest stand species composition and silviculture practices aiming at shaping their multi-layer structure. As a result, additional amounts of organic carbon will be captured and will become either a part of the forest organic matter or will be held in timber gathered in energy storage facilities. Parts of the project:

- (I.) Demonstrating the role of forest areas in mitigating climate change and absorption of greenhouse gases in the environment;
- (II.) Testing the effectiveness of additional activities aiming at increasing the retention of CO₂ in Polish forests;
- (III.) Improving the mode of reporting CO₂ absorption in Polish forests.

Close cooperation between policy (Ministry of the Environment, Ministry of Climate), forest management (the State Forests) and research (primarily the Forest Research Institute) is carried out on a daily basis. There are close links between those actors as regards forest hazards and forest adaptation and protection strategies.

Portugal



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

The role of forests, SFM and the use of forest based products in the mitigation of climate change are recognised in the Carbon Neutrality Roadmap 2050, approved in July 2019. The most relevant forest related measures to the long term strategy for carbon neutrality of the Portuguese economy are those targeted to the reduction of burnt areas, to the increased productivity of forests, through SFM, and the new afforestation of 8,000 ha/year. These set of measures aim to gather a net carbon sequestration capacity of forests between 11-13 Mton CO₂ by 2050, enhancing the role of forests in mitigating CO₂ emissions.

To strengthen synergies with the other related sectors, the National Programme for Territorial Planning Policy (PNPOT) was approved in September 2019, comprising a set of several measures where the contributions of forests and forestry to other sectors are highlighted. It includes several measures where the contributions of forests to climate change policy are underlined. Moreover, a platform to promote stronger relations among the forest sector was established, involving all stakeholders through the value chain, from production to industry, led by both the Secretary of State responsible for forests and the Secretary of State responsible for economy. The objective is to address constraints in the sector and to provide transparency among major intervenients (*relevant also for the Madrid Ministerial Resolution 1*).

The 2nd phase of the National Strategy for Climate Change Adaptation (ENAAC 2020), launched in July 2015, is another relevant policy instrument to continue efforts to adapt forests to climate change through SFM. Moreover, in 2018, the adaptation component was incorporated into the new Regional Forest Management Programs (PROF) (*for more details see the part on implementation of the Madrid Ministerial Resolution 2*).

Financial measures to support agro-forestry systems were implemented, especially addressed to extensive livestock grazing in open forest stands, benefiting from the European Agricultural Fund for Rural Development.

The recovery of forest areas, especially those affected by the dramatic fire events in 2017, was supported by financial resources from the EAFRD and also by private sector, on voluntary basis. Several NGO's and groups of the civil society provided also volunteers for the afforestation and reforestation initiatives.

The profitability of the forest sector is the key objective of the "competence centres", established to link research with the end users, building an action plan where the main challenges are identified, providing the frame for projects to overcome them.

The PROFs were revised and updated, following the guidelines from the approved revised National Forest Strategy, thus providing an adaptation of policies and tools to the new identified challenges.

The 6th National Forest Inventory, providing most of the information for the pan-European indicators, was concluded in 2019 and its results disseminated. In addition, a flyer "Forest Profile" is periodically produced containing a subset of the pan-European indicators.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Action Plan for the Circular Economy was approved in late 2017. This action plan, along with a comprehensive communication strategy, helped to encourage the adoption of circular economy in companies, public administration and civil society. A focused analysis of forest sector and circular economy is being produced under a strategic document within the scope of the platform for the relations in the forest sector (referred above), enhancing the role of SFM in green economy.

In order to adapt education, labour skills and qualification of workforce to the current demands, the priorities for training in the forest sector were discussed with private sector, providing the basis for a program that fulfils the identified expectations and needs, as foreseen in the National Forest Strategy. Also, after the 2017 fire season, there was a process to revise the profile of different jobs related to forest fire prevention and fire combating.

Recognising the role of forest ecosystem services in the contribution of forests to a green economy, several pilot projects related to the valuation of forest ecosystems in protected areas were developed in 2017-2018, with the financial support of the National Environmental Fund. The knowledge acquired allowed to launch an open call in 2019 expanding the project to another 2 protected areas. In this scope, the National Programme for Territorial Planning Policy (PNPOT) established a "compromise for land-use", that includes valuing the ecosystem services provided by natural capital.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

The National Strategy for Climate Change Adaptation (ENAC 2020) includes a specific workgroup to address the adaptation of forests. This approach facilitates the articulation with different sectors and interested parties (including public and private stakeholders, NGOs and Academia) to improve knowledge on climate change, implement the adaptation measures and projects and, also, to promote the integration of adaptation into other sectoral policies.

In 2018, the adaptation component was integrated into the SFM planning policy instrument - PROF. Different IPCC scenarios were used to study prospective scenarios for SFM in each region, looking at strengths, weaknesses, opportunities and threats associated with each one, in order to design strategic objectives and measures. The impact of the climatic scenarios on forest species' distribution was, also, analysed to identify the set of priority species for afforestation and reforestation purposes.

Measures related to forests relevant to adaptation and mitigation of CO₂ emissions, are targeted to the reduction of burnt areas and the increase of forests productivity. In September 2019, the National Programme for Territorial Planning Policy (PNPOT) was approved and considers the role of forests in the climate change policy, economy and landscape approach (*relevant also for the Madrid Ministerial Declaration*).

In addition, the Operational Program for the Conservation of Forest Genetic Resources - PROGEN was approved in 2018 with the aim to promote ex situ and in situ conservation of forest species and shrub species rare, threatened and relevant from the environmental, social and economic perspective and the improvement of forest genetic resources.

Implementation of commitments from previous Ministerial Conferences

Oslo Ministerial Declaration "European Forests 2020", namely its Vision was overtaken as the vision of the National Forestry Strategy on the 2015 revision.

Slovakia



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In 2014, the Government of the Slovak Republic approved the Action Plan of the National Programme of Utilization of Timber Potential for the period 2014-2020. In 2015, the Action Plan of the National Forest Programme II for the period 2014-2020 was approved by the Government of the SR. Both Action Plans have been developed in accordance with the principles of SFM, multifunctional forestry and sustainable supply of forest-related goods and services. The measures set out in the Action Plans are indicative, that means, their fulfilment is dependent on available funds for their implementation. Realization of the measures should therefore be implemented on the basis of their urgency. Action Plans are currently in the stage of implementation.

Publication "Sustainable Forest Management" was issued in 2017, and consists of five parts - silviculture, forest protection and, logging and transport technologies in forestry, forest management planning and current forestry issues from the point of view of forestry legislation. It serves mainly for professional forest managers to facilitate their daily work.

The Act on Placing of Timber and Timber Products on the Internal Market was approved in 2018 and the Slovak Forestry-Wood Inspection was established. The purpose of the Act is to prevent the entry of timber from illegal logging or products of such timber into the

internal market, as well as prevention of illegal logging and marketing of illegally felled timber at domestic markets through the responsible government authority (Slovak Forestry-Wood Inspection). The act defines inspection's competencies and determines the sanctions for administrative offenses in this area.

Amendments of the Act on Nature and Landscape Protection, and the Act on Forests were approved by the National Council of the SR in 2019. Both the amendments have significantly contributed to eliminating the existing contradictions of the original texts and to addressing the open issues of SFM and protection of natural values in forests.

Call of the Rural Development Programme of SR (RDP SR) 2014-2020 was opened within sub-measure 8.6 - Support for Investments in Forestry Ecological Technologies and Processing the Mobilization and Marketing of Forestry Products. There was a preparation of calls within the RDP SR 2014-2020 for measures 16.1 "Establishment and Running of Operational Groups" and 16.2 "Support for Pilot Projects and the Development of New Products, Procedures, Processes and Technologies" including Forestry.

To improve the understanding and recognition of SFM within green economy, broad spectrum of information on related production, social and ecological indicators is necessary. In this context the second cycle of the "National Inventory and Monitoring of Forests SR 2015-2016" (NIMF2) was realized. The NIMF2 provided objective information on the state of the forest at the national level and in selected regions of Slovakia, as well as the real dynamics of the changes over the past 10 years as compared to NIMF1 realized in 2005-2006.

Reports on the forest sector of the Slovak Republic (so called Green Reports) are annually elaborated based on identified sets of indicators (regional and national).

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

In 2016, the "Analysis of potential of Slovakia to use the principles of green economy in forestry" was carried out. The target was to analyse and to propose policy tools to support sustainable production and processing of wood in Slovakia, as well as to identify potential sources and activities of the Slovak regions to use the principles of green economy and their implications for employment and poverty alleviation in the country's regions.

Within the RDP SR 2014-2020 there were imposed the following sub-measures: 16.1 Support for the establishment and operation of EIP operational groups on agricultural productivity and sustainability; 16.2 Support for pilot projects and for the development of new products, processes and technologies; 16.3 Promoting cooperation between small economic operators; 1.1 Support for vocational training. The following scientific projects aimed at ecology, economics and optimization of close to nature forest management in natural conditions of Slovakia have been carried out by the National Forest Centre Zvolen since 2014, to permanently support forest biodiversity, including adaptation of forests to climate change: "Research of Wood Biomass Potential for Energy Utilization - BIOMASA" (completed in 2017); "Innovative Methods of Management Planning in Close to Nature Forests - FORESTMAN" (completed in 2017); "Research and Development for Innovation and Support of Competitiveness of the Forestry Sector"; "Promoting Investments in the Complex Processing of Raw Wood" (completed in 2017); "Research of the Wood Use as a Renewable Material in Transformation to a Green Economy" (completed in 2019); "Innovative Methods of Optimizing of Timber Felling in the Close to Nature Forests" (ongoing). The above mentioned projects have been funded from the sources of national Research and Development Support Agency (RDSA) *(relevant also for the Madrid Ministerial Declaration)*.

For the period 2018-2021, the research project "Testing of New Policies and Business Models for Ensuring Selected Forest Ecosystem Services" was approved by the RDSA.

Ministry of Labour, Social Affairs and Family of the SR on the basis of the National Employment Strategy of the SR until 2020 and the Act on the Support of the Least Developed Districts, elaborated action plans for identified districts proposing systemic measures and activities to develop regional economies and innovations in various sectors of the national economy, including forestry, with an emphasis on job creation.

The "Concept of the development of the wood processing industry", dealing with the timber market and timber products was elaborated.

New master and doctoral study programs: „Adaptive Forestry and Ecosystem Services" within adapting the education and training systems to changing conditions (at the Forestry Faculty of the Technical University in Zvolen) were introduced.

Regulation of MARD of SR on the granting of forestry support for forest ecosystem services was elaborated and implemented in 2017, 2018 and 2019. Based on the Regulation, financial support for the provision of ecological and social functions of forests was provided to 127 applicants in the total volume of 2.296 million €

in 2018 *(relevant also for the Madrid Ministerial Declaration)*.

Exchange of information is realized within national seminars and scientific conferences "Current issues of forest economics and policy in the SR" annually organized by the National Forest Centre - Forest Research Institute in Zvolen for forest owners and managers, state administration, forestry institutions, related sectors, academia and other stakeholders. In addition, scientists dealing with the related issues take part in the exchange of information within the international conferences where new scientific findings are presented.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

In actual RDP SR 2014-2020 there are measures related to the creation, funding and realization of recovery projects in forests determining prevention and regeneration of forest potential in damaged forest stands. The measures on regeneration of forests after calamities caused by wind and insects including tending subsequent young forest stands are implemented. The aim is to restore degraded forests and to increase resilience and adaptive capacity of all types of forests to natural disasters and the impact of climate change.

With regard to the current unfavourable development of forest health and subsequent incidental (salvage) felling in spruce forests and pine forests in Slovakia, the MARD of SR issued Decision Imposing Measures to improve health in coniferous forests. The adoption and implementation of vigorous measures are essential in a view of the current and estimated level of forest damage.

The National Program for Forest Genetic Resources (2015-2019) indirectly also supports adaptation to climate change: Objective 3 "Collection of genetic resources for archiving at the Seed Bank"; Objective 4 "Preservation of valuable ex situ genetic resources" and Objective 6 "Reproduction and restitution of genetic resources". In 2019, draft National Program for Forest Genetic Resources for 2020-2024 was developed. All 7 objectives of the programme support the adaptation of forests to climate change.

The updated Adaptation Strategy of the Slovak Republic on the Adverse Impacts of Climate Change imposed in Chapter 5.8 "Forestry" 12 adaptation measures, including "Support for ex situ measures for conservation and sustainable use of forest tree genetic resources".

International Scientific Conference on Forest Protection is annually organized by the Forest Protection Service of the National Forest Centre, under the auspices of the Section of Forestry and Wood Processing of MARD with international participation, mainly from the Czech Republic, Poland and Hungary. The Conference focuses on current issues of forest protection, presentation of new results of scientific and technical projects as well as international comparison of the state of forest protection. It is intended for a wide range of forest owners and users, professional forest managers, state administration, academia, forestry institutions and other interested parties.

Exchange of information and experiences on maintaining the protective functions and on restoration of degraded forests are inter alia realized within (since 1999) annually organized meetings of pedagogic and research staff of the five establishing silviculture oriented institutions from Bohemia, Moravia, Silesia and Slovakia.

Several scientific projects are carried out, mainly: "Optimization of the forest stands management under the condition of the changing climate"; "Extreme displays of the climate change and their impacts on the growth and production of forest stands"; "Information and warning system for invasive organisms in forests and urban environments". In 2016, a project within the RIS3 SK specialization was launched, which includes the activity "Strategic research on methods of monitoring abiotic, biotic and anthropogenic agents in forests for the precise applications in forest protection". Within the RDP SR 2014-2020 the project "Automated stationary detection system for early detection of forest fires" for selected territories with high fire risk was implemented.

Vital role of SFM in protecting forests belongs among the key topics of annually organized forestry events of national importance, mainly "Forestry Days", "Tree Day" and the project "Children's Forestry University" that have been regularly organized since 2009.

Slovenia



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

On the strategic level, in 2007, National Forest Programme succeeded Forest Development Programme and its goals on increasing growing stock, by newly determining national forest management policy, forest preservation guidelines, and conditions for sustainable, close-to-nature forest management. Based on the connected Operative Programme for the period 2017-2021, two of the top priorities are to i) achieve and secure favourable status of all forest functions, including sustainable income from forests, and ii) optimize sustainability through supported measures.

Some of the measures are closely connected to biodiversity goals and defined in the Program of NATURA 2000 Management, Program on Investments in Forests, National Forest Programme, and the Rules on Financing and co-Financing Investments in Forests. Their funding was enhanced in 2016 with the Forest Fund, envisioned to systematically support NATURA 2000 measures in private forests in order to improve or to maintain favourable state of qualification species and habitat types.

Multifunctionality of forests and the benefits they offer to society are promoted by forest service through various social events, fairs and congresses, and lately by the ministerial publication titled "Carefully with Forest". Other activities include ongoing processes, such as

forest tourism, forest knowledge trails, promoting positive effects of forest on human health, or one-time events such as photo contest on "Forest and Human", and seminar titled "Forests and People - Legacy for the Future". Awareness rising on the vital role of sustainability was strengthened through forest service publication "Tending Forest: Today for Tomorrow" and in 2015 through public debate organized by the National Council of Slovenia, NGO Umanotera and the Ministry of Agriculture, Forestry and Food, titled: "Forest - Our Common Good".

Contribution of forests and its products in reducing CO₂ emissions and increasing C sink is envisioned by constant tree cover on forest land, optimal growing stock, vital and stable forest stands, harvesting up to 75 % of the increment and by the use of wood as an energy source and as a replacement for energetically less effective material. This is also the goal of the Action Plan: Wood is Beautiful, approved for the period 2012 - 2020. In 2019, the workshop "Sustainable Forest Management in Aspect of Ensuring Carbon Sink and Adapting to Climate Change" opened the discussion on future forest, harvested products and silviculture practises. It is also important to reduce the risk of forest fires, as air temperature rises and precipitation regime changes.

The use of SFM tools developed by FOREST EUROPE is to be strengthened, among others, with 2050 long-term climate strategy and Life Climate Path 2050, with measures further integrating climate goals and actions into forest management policy.

In forest state evaluation and development of parameters for the needs of National Forest Programme objectives, a judgement was made of the implementation of National Forest Programme goals and sustainable management, as well as of the current status and models of future development of Slovenian forests. One of the goals of the related research project was to harmonize national indicators of sustainable use of forests to those from FOREST EUROPE.

Sustainable use of forest based goods and services with the potential to support the rural population, is supported through actions like:

- measures within the chapter on Rural and Green Infrastructure of the Strategy of Spatial Development of Slovenia 2050;
- local networks connecting rural forest owners and forest-wood industry, aimed at improving rural income and reducing unemployment rate;
- premium wood annual auction - organized by the private forest owner association and public forest service;

- project BioVill promoting knowledge from Germany and Austria on biomass use for heating. The goal is to increase the role of wood as the energy source for local sphere and to increase its economic value for small rural companies and private forest owners.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Support to Slovenian municipalities in creation of new green technologies, green jobs and improving management of natural resources is one of the objectives of the long-term strategy Partnership for Slovenia's Green Economy. Other important strategic documents addressing forestry as a solution for reducing carbon emissions and improving green circular economy are Slovenian Strategy for Low Carbon Society until 2050, Slovenian Development Strategy 2030, Vision of Slovenia 2050, and Strategy of Smart Specialization. Furthermore, forest value chain groups goals into six topics:

- (I.) wood buildings and development of technology needed;
- (II.) buildings as a material bank, with plan of their recycling after building life cycle ends;
- (III.) revival wood industry based on small companies;
- (IV.) recycling of wood products to support circular economy;
- (V.) improved legislation on green procurements;
- (VI.) wood for energy use.

Scientific conference "Forest and Wood: Idea, Invention, Innovation" took place in 2016 at Slovenian Academy of Science and Art, presenting broad aspects of forest roles, climate influence and solutions for economy. Innovation is also considered in the project InnoRenew CoE, cooperating in Forest-based Sector Technology Platform.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Ongoing adaptation of forests to climate change challenges is enabled with natural regeneration,

genetic variability and mimicking of the natural processes in the forest management. This has further been stipulated by the realization of annual plans of investments in forests, presented by public forest service, and Rural Development Plan 2014-2020 (RDP), with measure 8: Investments in Development of Forest Areas and Improvement of Forest Ability to Survive in Changed Environment.

RDP also supported the development of new products, processes and technologies in the field of forestry, as well as projects to reduce negative impacts of climate and forestry on the environment, and to secure biodiversity. The last one is also supported by LIFE SYSTEMIC; how to help sustainable forestry practices in achieving greater genetic diversity in order to enable forests in adapting to future climate challenges better.

Climate change mitigation is recognized by continuous tree cover as a part of management practise, and by actions to restore forests, damaged by disturbances such as ice sleet, wind throw and bark beetle attacks. Forest land restoration action, as reforestation with saplings, is enabled within cooperation between Slovenia Forests Service and by individual forest owners, volunteers, or various organizations, for example Scout Association of Slovenia and Slovenia Forest State Company. The experience on restoration and rehabilitation of degraded forests were exchanged internationally, for example between Turkey and Slovenia, and Slovenia and Georgia. In the forest sector, both countries (Turkey and Georgia) are devoted towards sustainable and multifunctional forestry, solving challenges on climate change and improving adaptation to future site conditions.

Many measures taken are based on research results. "Forest Ecosystem Research and Management in Slovenia: Past, Present and the Future", are lectures presented at the 34th Conference Forestry Study Days in 2017. The main agenda was connected to questions on how to adapt forests and forest management to land owner structure and climate change in order to prevent and mitigate damage, caused by changing site conditions. Similar goal was set by the publication „Forests and Extreme Weather Events- Adaptation of Forest Management to Climate Changes" (FOREXCLIM), prepared within the initiative of ERA-NET SUMFOREST project. Furthermore, information and knowledge sharing was ensured through seminars "Forest and Wood: Forest and Climate Changes"; and "Forest and Wood: System Challenges on Forest Renovation".

Spain



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

A new forest regulation, guided by the principles of SFM, was approved and published in 2015. It points out the crucial role of forest in the mitigation of climate change and the urgent need to address the adaptation of forest to climate change through their SFM. Furthermore, the National Forest Strategy is currently under revision, and an enhanced importance of SFM principles in the context of the current climate change challenges is foreseen (*relevant also for the Madrid Ministerial Resolution 2*).

In general, there has been an effort to mobilize financial resources, mainly from the public sector, in order to support SFM, with an investment of more than 2,000 million € for the period 2014-2020, in the context of the CAP rural development programmes. The programmed sub-measures provide crucial financial support to address the key issues in the Spanish forest sector. They are also aligned with the needs derived from current international commitments and with social concerns, with an increasing presence of the need to combat the effects of climate change. In this regard, the 2014-2020 framework offered opportunities to increase the forested area and thus, to increase the carbon sink capacity (sub-measure 8.1); to improve the conservation status and to facilitate the regeneration of pasture lands and other agroforestry systems (sub-measure 8.2); to decrease the risk of forest fire in forest ecosystems and to improve the response capacity of fire-fighting operatives (sub-measure 8.3); to restore

burned land or other degraded lands (sub-measure 8.4); to increase the ecological value and ecosystem services provided by forest lands (sub-measure 8.5); and to improve the productive economy linked to forest land (sub-measure 8.6). These sub-measures address the main needs of Spanish forest systems the current framework of global warming: the increasing severity of forest fires, which represent a threat both to biodiversity conservation and to the safety of populations; emergent forest pests and diseases and an increased virulence in the existing ones interlinked with the weakening of forest in the context of climate change; forest and woodland decay and death; insufficiency of forest management practices to adapt weakened forest; etc. (*mentioned measures relate also to both Madrid Ministerial Resolutions*).

Spain, particularly, has consolidated an increase on their investments on forest restoration in the context of the CAP rural development programmes of the EU in this period. These initiatives were specially focused in preventing soil erosion and degradation, taking into account the commitments of Spain in relation to Land Degradation Neutrality targets in the context of the United Nation Convention to Combat Desertification.

Additionally, Spain has included specific measures to support agroforestry in the rural development programmes of several regions in order to increase their resilience and sustainability in the long term. In the Andalusian region, a specific forest plan has been approved in 2017 in order to address the main challenges of these forest ecosystems to assure their environmental, social and economic viability.

The work in cross-sectoral approaches has been especially relevant in relation with climate change policies and in biodiversity conservation initiatives. New actions in the forest sector are being included in the new National Integrated Plan for Energy and Climate and will be implemented after 2020. Among them, the most important for the forests are the following: (1) forest regeneration in agroforestry systems; (2) restoration of riparian forests in flood plains, including forest plantation with native species; (3) forestation and reforestation measures; (4) forestry practices oriented to forest fire prevention; (5) forest restoration in river basins with high risk of erosion; among others. Regarding the biodiversity conservation in the forest sector, some regions have included biodiversity conservation measures in their rural development programmes. Spain has also joined the Integrate Network in Europe, in order to enhance biodiversity conservation in forest management practices and schemes.

In this period, Spain has developed the Communication Programme on Forest Fires Risks and Prevention, including the importance of SFM practices in order to increase their resilience.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

National Bioeconomy Strategy was approved in 2015, together with biennial plans to develop the main measures including a specific section for forest products and biomass. This Strategy recognizes the important contribution of the forest and forest products to a green economy.

In this period, Spain financially supported the creation of operative groups at national level and several innovation projects in relation to SFM practices and forest based industries and products.

Spain has also taken specific structural measures to facilitate the use of wood and forest products from sustainably managed forests in order to stimulate the transition of societies to a green economy.

Additionally, several publications and guidelines were published in order to promote the use of wood in buildings and infrastructures at the national level. Several seminars and workshops were also organized at national level to communicate the advantages of the new forest biobased products, targeting different social groups.

Spain has enhanced the collaboration between scientific institutions and the forest administration in this period. In relation with the forest sector in green economy, we have worked in the conservation of forest genetic resources and the development of methodologies to identify samples of timber and prosecute illegal trade in timber and timber products pursuant to the European Timber Regulation and the FLEGT regulation. Moreover, in order to increase the knowledge about timber quality, newly developed parameters are measured within in the National Forest Inventory. This information could be potentially used as an estimate of the use of timber.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

At national level, Spain is preparing a new Forest Adaptation Plan in the context of climate change. Additionally, in this period, a specific programme for the preservation of *Quercus ilex* and *Quercus suber* species in the context of climate change challenges has been developed. Remarkably, it included specific actions to search progenies with certain tolerance to *Phytophthora* fungi (oomycete), an emerging disease interlinked with current changing conditions.

In this period Spain has maintained or increased its investments for forest fire prevention at both regional and national levels. Several forest restoration actions after forest fires and pests have been implemented in the context of rural development programmes.

Multiannual science-policy actions to improve the information about the role of forest in climate change mitigation have been implemented in this period, through agreements between scientific institutions and forest administration. Examples included the development of methodologies to estimate carbon accumulated in litter, deadwood, shrub land and young forestations.

In order to promote the exchange of information, and the interaction among research, policy and forest management, Spain has published several guidelines and the evaluation of techniques and models needed to implement adaptive forest management practices to climate change.

The Funding Programme line PIMA Adapta- Ecosystems has been focused on the implementation of practices that enhance synergies between adaptation and mitigation in agricultural and forest areas, promoting at the same time adaptive forest measures and practices and enhance the role of forests as carbon sinks. Different measures have been carried out by autonomous regions, and the Autonomous Authority for National Parks, jointly with Spanish Office of Climate Change.

The National Rural Development Programme, in the framework of the European Agricultural Fund of Rural Development (2014-2020), includes, among others, actions related to:

- (I.) Fire prevention works: They are aimed at increasing or maintenance of the fire resistance of vegetation cover; improvement in fire prevention infrastructures; support preventive infrastructure in particular Spanish regions with the highest risk of forest fires; and the development of prevention measures with local communities in order to reduce the occurrence of anthropogenic fires and to improve landscape resistance to fires. Moreover, specific preventive forestry measures (management and control of biomass) are promoted such as: construction of firebreaks and areas more resistant to fires (release operations, removal cuttings, pruning, prescribed burning, forests waste removal, planting, replanting, etc.) and implementation of coordination protocols among stakeholders in order to improve the capacity of organizations to deal with extreme fires working together.
- (II.) Forest restoration in some areas affected by forests fires, in order to minimize ecological disturbances in the short term, especially those which could be irreversible, such as soil erosion, desertification, or loss of biodiversity and organic matter. The goal is to restore the structure and environmental operation of forests before their degradation, and to make them more resistant to future disturbances.

Sweden



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

Swedish National Forest Programme (adopted in 2018) and National Strategy for Climate Change Adaptation are the main strategic documents addressing commitments of the Madrid Ministerial Declaration.

In 2018, the government also adopted the Action Plan for the implementation of the Swedish NFP that includes actions aimed at promoting SFM, such as:

- increase of interdisciplinary science and communication thereof on multifunctional use of forests;
- development and implementation of an effective education program on moose management;
- evaluation and analysis of applicability of continuous cover forestry within the frame of SFM.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

The Sweden's National Forest Programme contains 5 focus areas which directly address the commitments of the Madrid Ministerial Resolution 1:

Focus area 1. Sustainable forest management with greater climate benefits;

Focus area 2. Multiple uses of forest resources for more jobs and sustainable growth throughout the country;

Focus area 3. World-class innovation and processed forest products;

Focus area 4. Sustainable use and conservation of forests as a profile issue in Sweden's international cooperation;

Focus area 5. A knowledge leap to ensure the sustainable use and conservation of forests.

The Action Plan of the NFP includes a range of concrete measures to facilitate the implementation of the 5 focus areas. One of the specific measures is e.g. review of the existing strategy "Competitiveness requires gender equality", which was jointly adopted and implemented by the Government and the forest sector. Other measures of the Action Plan related to the Ministerial Resolution 1 include e.g.:

- development of regional action plans for green infrastructure, e.g. linking to Sweden's environmental goals;
- start of a cooperative process between government agencies and the forest sector in order to increase yields within the frame of the national forest policy's co-equal goals of environment and production.

For this Resolution also the Wood Construction Strategy (adopted in 2018), and Swedish Strategy for Biodiversity and Ecosystem Services (adopted in 2014) are relevant.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Both the aforementioned Climate Change Adaptation Strategy as well as the Swedish National Forest Programme cover commitments of the Madrid Ministerial Resolution 2. They also relate closely to the implementation of forestry and environmental legislation as conducted by the Swedish Forest Agency and the Swedish Nature Protection Agency.

Following the above and in line with the 2018 government regulation on government agencies' work on climate adaptation, the Swedish Forest Agency (SFA) adopted goals for climate adaptation in forestry accompanied by an action plan which came into effect in January 2020.

Consequently, the SFA actively works on informing forest owners on their options for climate adaptation of their forests through the SFA's regular extension services and additional information campaigns. Recommendations include, for example:

- improved thinning practices to counter the risk of increased snow-damage;
- changes in tree species as well as promoting the planting of mixed stands to mitigate risks such as root rot, forest fires and windthrow;

- strategic planning of forest work to avoid soil damage due to warmer winters, including the planning and maintenance of climate adapted logging roads.

The SFA in cooperation with the Swedish International Development Cooperation Agency are implementing an International Training Programme on "Locally controlled forest restoration - A governance and market oriented approach to resilient landscapes". This training programme focuses on developing countries.

Switzerland



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

Switzerland is implementing nationally all of the Madrid ministerial commitments for the most part independently as part of its national forestry activities, within the Swiss Forest Policy 2020 adopted in 2013 (The Forest Policy has been extended to 2030). The Forest Policy 2020 defines a total of eleven policy objectives. These concern wood harvesting potential, climate change, protective forest, biodiversity, forest area, the economic efficiency of the forest sector, forest soil (including drinking water and tree vitality), protection against harmful organisms, forest-wildlife balance, leisure and recreational use of forests, and education and research (including knowledge transfer). The Forest Policy 2020 formulates several strategic guidelines and various measures for each objective. The primary responsibility for these measures lies with the federal authorities, however the role of the cantons and other actors is also addressed (forest owners, managers, forestry experts, associations etc.).

Forests are strictly protected in Switzerland. As a result of this protection and the good control exercised at the national level, the surface of the forests is increasing. In one year, between 2017 and 2018, more than 1,448 ha of new forests appeared in Switzerland. Despite the numerous unfavourable climatic conditions in recent years, the management and maintenance of forests makes it possible to limit damage to stands. They are not inevitable but remain contained and all of the actors in forestry commit themselves to react whenever

necessary. For example, with regard to forest fires, they remain limited on the surface. This stems from the great responsiveness of the means of intervention when a disaster occurs. In 2018, on average, forest fires were brought under control when they affected less than 1 ha.

The goals were established before the Madrid commitments, so these goals influenced Swiss inputs to the commitments. Except focusing on agroforestry (commitment 19), which is headed by the Agriculture Agency of Switzerland, and the forestry division has recently strengthened its participation.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Objective 3.1 of the Swiss Forest Policy is as follows: The sustainably harvestable wood harvest potential shall be exhausted: harvesting of the renewable resource wood improves Switzerland's CO₂ balance (through the sequestration of carbon in wood used in construction, through the substitution of fossil energy carriers and non-renewable materials), helps to create jobs in peripheral regions and contributes to the protection of the environment in regional economic cycles. For example, the net carbon gains in harvested wood products in 2016 were around 213 kt of CO₂. However, this potential is not being fully exploited as, for decades now, the volume of wood being harvested is lower than increment (particularly in private and mountain forests). With an average increment of 10 million m³ per year, half of this wood remains unharvested in forests annually. Hence, Switzerland has one of the highest standing volumes in Europe.

Forest and timber sectors are important employers in rural areas. Around 3,000 people work in the forest sector and around 90,000 in the timber sector (2019).

Sustainable harvesting can also generate synergies with the biodiversity promotion strategy and make an important contribution to green economy furthermore because close to nature forestry is legally ensured in Switzerland. It is to note that Swiss forests are mostly naturally regenerated and that the forest management cannot use any fertilizer. The insufficient regional utilisation of wood, particularly in the Alpine region and Southern Alps, affects a variety of forests functions. Forests become denser and darker and inhibit light and heat-loving species from growing in the habitat and this has a negative effect on biodiversity. Insufficient

management also causes an imbalanced age structure in many forests. This specifically compromises protection against natural hazards (about 50% of Swiss forests). However, nearly 90% of Swiss forests are considered to be economically productive. Finally, more than half of the forest reserve areas planned for 2030 (10% of the Swiss forest area according to the target set out in the Forest Policy 2020) are already established. The forest covers a third of Swiss territory. For the coming years (2020-2024), it is planned to extend the area of forest reserves by 20,000 ha and to promote significant natural environments over more than 10,000 ha. The Confederation and cantons finance a large part of these measures, but we note that forest owners, both private and public, are also significantly involved in these processes.

With the development of heating networks, energy from wood has become more important in Switzerland. Currently more than 560,000 wood heating units are in operation in Switzerland. They heat more than 10% of households in the country for a part of wood used as fuel counts for 12%. Fourteen installations for the production of electricity from wood operate with power of more than 223 MW.

Strategic direction 6.2 of the Swiss Forest Policy is the following: Valorisation of forest services: Information bases shall be developed and conditions established so that forest services provided by forest owners can be valorised (e.g. for recreation, drinking water, CO₂ sink services). Most Swiss forests can be considered to be multifunctional in the sense that they serve simultaneously multiple functions and are managed for this purpose. Actions are underway at the federal level in order to enable payment to forest owners for water filtration and CO₂ sequestration services from forests (on the free market).

Stage 1 of the strategic direction 6.2: In accordance with the current efforts to establish integrated national welfare measurement in the context of the "green economy" programme, the Confederation shall examine the benefits arising from the extension of the current macro-economic monitoring of the forest sector to a comprehensive integrated economic-ecological national account for forests.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

Objective 3.2 of the Swiss Forest Policy is the following: Climate change: the forest and use of wood shall contribute to mitigation and the impacts on forest services shall remain minimal.

Challenge: the mandate formulated in Article 77 of the Federal Constitution obliges the Confederation to conserve the protective, harvesting and welfare functions of forests in Switzerland. This mandate is assuming a new significance in the context of changing climate conditions. In addition to the challenges concerning current and medium-term forest management, the Confederation must deal with the question as how the existence of a forest ecosystem and its services can be guaranteed 100 years from now. The forest, its products and services are broadly affected by climate change. Through its effect as a carbon sink, the forest contributes to the mitigation of climate change. Fossil energy is substituted through the use of wood in construction and the carbon remains sequestered. On the other hand, climate changes are likely to have a strong impact on forest ecosystems (storms, drought, heatwaves forest fires, biotic calamities). The changes threaten to unfold at a speed that outpaces the natural adaptation processes.

Goal: for the mitigation of climate change, forest management and wood use (substitution) shall contribute to attaining the maximum possible reduction in CO₂ emissions (reduction). The Swiss forest shall be conserved as a resilient ecosystem that is capable of adaptation and shall continue to provide the services required by society under altered climate conditions (adaptation).

Under this objective the following 4 strategic directions are given:

2.1 Clarification of the impacts: The impacts of climate change (storms, drought etc.) on the forest shall be studied and the suitability of silviculture methods used shall be examined.

2.2. Increasing resilience: The resilience of the forest shall be improved through adapted young forest maintenance with stable young stands suited to their locations. Targeted measures shall be carried out to adapt forest stands with insufficient or unsuitable regeneration and unstable stands, and stands in climate-sensitive locations.

2.3. Measures in case of disruption and damage: Measures for prevention, removal and reforestation following events involving disturbance or damage shall be supported.

2.4. Boosting wood use: The use of wood shall be boosted as a contribution to clean technologies.

On the basis of the results of the "forests and climate change" project, a Smartphone application is being developed and will be made available to forest managers free of charge in 2020 again. It will enable them to obtain recommendations on the forest species to be favoured according to the location and characteristics of the forests, taking into account knowledge of future climate change.

Turkey



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

According to the 11th National Development Plan of Turkey (adopted in 2019), the economic contributions of Turkish forest ecosystems will be increased through SFM.

National Strategy and Action Plan of Combating Desertification (2015-2023) enhances the activities in combating desertification and erosion control in line with SFM in forests and other ecosystems.

National Criteria and Indicators (C&I) for SFM have further been improved in line with the Updated Set of Pan- European C&I (2015).

The Strategic Plan of the Turkish Forest Service (2019-2023) together with C&I, considering protective functions of forest ecosystems specifically soil, water and other ecosystem services promotes not only rehabilitation of degraded forests but also achieving land degradation neutrality in broader sense of landscape restoration. The main target of the Strategic Plan is to develop institutional, legal and financial structure of governance system aiming at effective protection against biotic and abiotic agents affecting forest ecosystems, enlarged and improved forest resources and sustainable and optimal utilization of forest goods and services for societal needs.

Recently, two ministries were merged and restructured: Ministry of Food, Agriculture and Livestock and Ministry

of Forestry and Water Affairs. Ministry of Agriculture and Forestry has strong implementation units for the development of agroforestry and agrosilvopastoral systems for enhanced and sustainable management of goods and services from forest ecosystems.

Ecosystem based forest management planning with particular concern to natural regeneration capacity and the close-to-nature approach strengthen synergies between the related sides to work together towards integrated and multidiscipline way, particularly impacting on the forest sector. There were also Turkish Biological Diversity Action Plan and Biological Diversity Database Management System established by DG Natural Conservation and National Parks. The following case studies were elaborated:

- Forest Ecosystem Products and Services Mapping
- The integration of forest biodiversity into forest management plans carried out 180.000 hectares
- National Botanic Garden of Ankara-Turkey being established by Directorate General of Agricultural Research and Policies

Action plans on non-wood forest products (NWFPs) and applied research projects were developed by Forest Research Institutes of Turkish Forest Service and Research Institutes under Directorate General of Agricultural Research and Policies to enhance research and development of new products and services from forests.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Organization of national and international training programmes, seminars, workshops, congresses, and elaboration of national case studies on NWFPs was ensured.

The value of NWFPs production increased from 20 million USD in 2013 to 100 million USD in 2018. One of the considerable NWFP is honey forests in Turkey. Also the Honey Forest Action Plan 2018-2023 was elaborated. In Turkey there are "Honey Forests" in an area of 70 795 ha established and producing around 110,000 tons with a value of around 450 million USD.

In 2019, 1 521 recreation areas were established generating an average income of 7 million USD. By 2023, 210 new recreation facilities will be established.

Small scale Bio fuel energy generation plants mainly based on wood residues from forests have been established and operated in remote areas.

Industrial Plantations Action Plan, as of the end of 2019, approximately 18,500 hectares of land has been applied, with the aim 300,000 hectares by the end of 2023.

Within the project “5,000 Income Generating Forests Action Plan for 5,000 Villages”, work has been completed in 5,282 villages by achieving more than the targets within a 5-year period. In the scope of these action plans, a total of 16.5 million income generating seedlings were planted.

Rehabilitation action plans for degraded cedar, juniper and oak forests were implemented. Thanks to the Çoruh and Murat River Basins integrated projects, the fertile forest area has been increased as a result of the implementation of rehabilitation action plans of the mining sites, and it is aimed to increase the amount of the fertile forest area to 14 million hectares by 2023.

Meeting wood raw material demand from the forests, timber supply was increased to 21 million m³ in 2017. In 2018, this amount reached 24 million m³, and in 2019 26 million m³. The target for the production of timber products from forests in 2020 is 28 million m³ of wood.

Integrated forest pests and diseases management considering biological control, ant transplanting, artificial bird nest hanging, useful predator production etc., in more than 1,121 million ha. (2015-2019) including chemical control methods restricted.

In order to increase public awareness, the training programmes and audio-visual materials on the protection of forests and protective areas in the changing environment were developed.

The installed permanent plots for monitoring and assessment of forest ecosystem (considering forest health and vitality criterion of SFM) are regularly visited to provide data and information for drafting strategy for future climate change regime, particularly for the adaptive management system in changing environment, as well as to prepare reports and map risk.

Applied research projects particularly on biological control, forest disturbance risks, forest fire management and climate change affecting forest ecosystems and protected areas and adaptive management have been conducted by universities and research institutes.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

International Forestry Training Centre (Antalya) provides fire-related trainings in the field for national as well as foreign experts.

Ukraine



Implementation of the Madrid Ministerial Declaration: 25 Years Together Promoting Sustainable Forest Management in Europe

In Ukraine, significant measures to prevent illegal logging and related trade were taken. In particular, the resolution of the Cabinet of Ministers of Ukraine introduced mandatory use of electronic timber tracking system for all owners and permanent forest users. The system allows monitoring of domestic consumption and ensures the control of the amount of domestic consumption based on systematization of information on timber origin, harvesting and sales. Starting from April 2020, the sale of timber which is not covered by electronic timber tracking system will be considered as illegal and will be the subject to additional inspections by law enforcement agencies.

Another decree introduced an experimental project for conducting electronic auctions for the sale of round timber. As of February 2020, all round timber from all owners and permanent forest users, including communal ones, being sold in Ukraine is put up exclusively for electronic auctions (*relevant also for the Madrid Ministerial Resolution 1*)

Significant work was done related to improvement of communication of forest related issues. In 2019, new

communication strategy was elaborated. Transparency of forestry operations was increased as well. In 2019, an on-line service aimed to provide tool to society and control authorities to check legality of timber harvesting was elaborated and implemented. At the website <https://lk.ukrforest.com> anybody could check permitting documents on particular harvesting plot as well as to see exact harvesting plot on a map. At the website <https://open.ukrforest.com> there is a possibility to check legality of the already harvested timber by waybill, track or label number. Assortment structure of timber harvested is also published on the web-site.

In addition to that, preparation of the National Forest Inventory (NFI) was conducted. The need for NFI is caused by the lack of reliable and credible information on all forests at national level since the last forest survey for the whole country conducted in 1996. The first step to implement NFI was the approval of the first reading of the relevant amendments to the Forest Code of Ukraine.

Implementation of the Madrid Ministerial Resolution 1: Forest Sector in the Center of Green Economy

Commitments resulting from the Madrid Ministerial Resolution 1 are recognised in the National Strategy of Low Carbon Development of Ukraine till 2050.

Implementation of the Madrid Ministerial Resolution 2: Protection of Forests in a Changing Environment

In a new thematic plan of scientific research adopted in 2019, an elaboration of strategy of forests adaptation to climate change with concrete measures is foreseen.

Area of protected forest territories is increasing each year. For the last 2 years there were issued 11 Presidential Decrees aiming to establish National Parks or increasing area of the already existing National Parks and other types of reserved areas.



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