

Summary for Policy Makers

State of Europe's Forests 2015



Food and Agriculture
Organization of the
United Nations



State of Europe's Forests 2015

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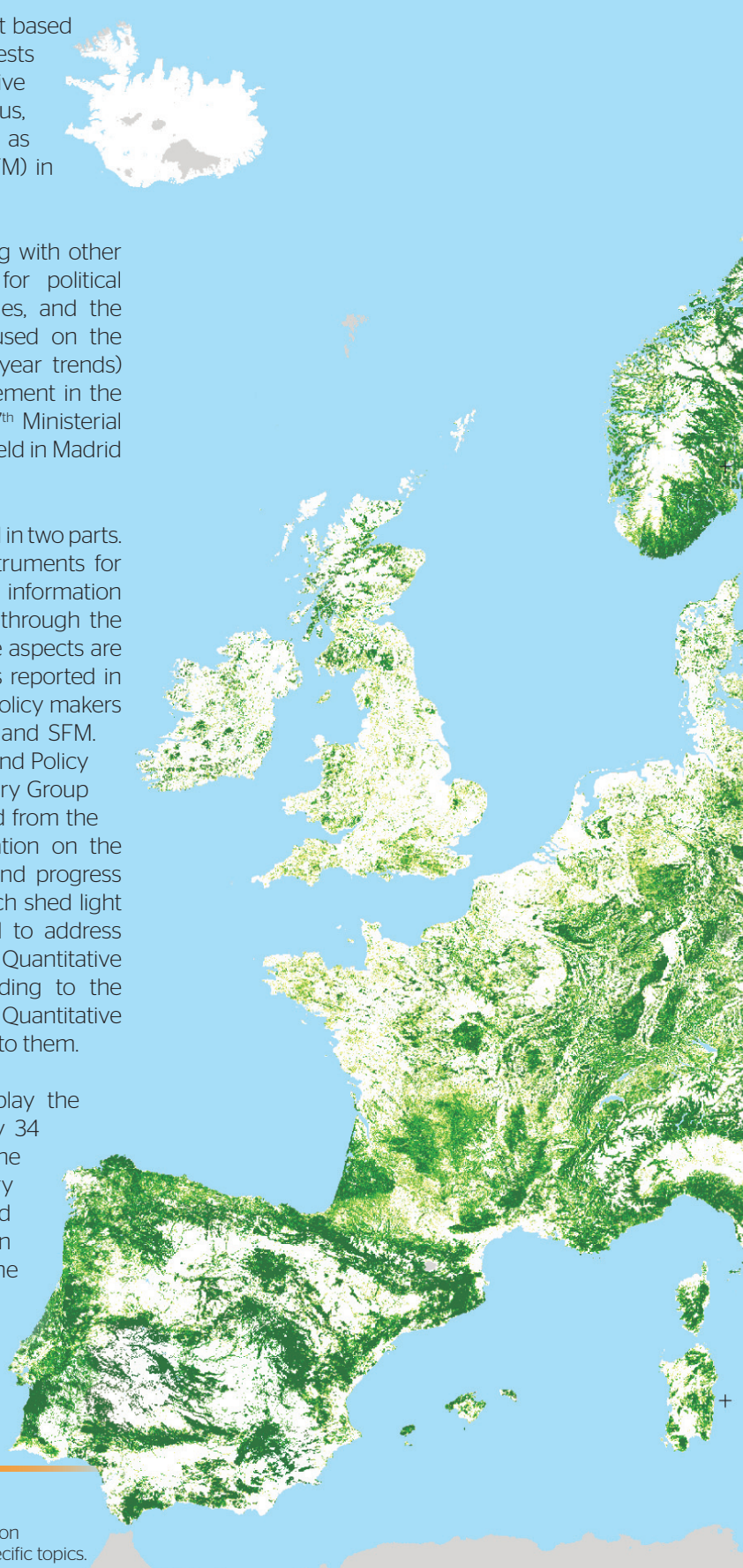
The Summary for Policy Makers is a brief document based on information included in the "State of Europe's Forests 2015" report. This document offers a comprehensive overview of European forests, their current status, trends and policy responses related to them, as well as an insight into sustainable forest management (SFM) in Europe.

The State of Europe's Forests 2015 report will, along with other publications, serve as background information for political discussions on future opportunities and challenges, and the associated political responses. This report is focused on the current status and trends (10-year trends and 25-year trends) of European forests and sustainable forest management in the period 1990-2015 and has been prepared for the 7th Ministerial Conference on the Protection of Forests in Europe, held in Madrid on 20-21 October 2015.

The State of Europe's Forests 2015 report is organised in two parts. The first part (Overall Policies, Institutions and Instruments for Sustainable Forest Management) provides general information about the way forests are governed in a country through the policies, institutions and instruments for SFM. These aspects are covered by five Qualitative¹ Indicators, and changes reported in these indicators over time reflect the responses of policy makers to challenges and opportunities related to forests and SFM. The second part (European Forests: Status, Trends and Policy Responses) has been prepared following the Advisory Group recommendations and on the basis of data gleaned from the 35 Quantitative Indicators, which provide information on the current status and changes in European forests and progress on SFM, and from the 12 Qualitative Indicators, which shed light on the policies, institutions and instruments used to address specific policy areas related to the afore mentioned Quantitative Indicators. This second part is structured according to the Six Criteria for SFM and includes the respective Quantitative Indicators and Qualitative Indicators directly related to them.

The Output Tables included in the Annexes display the information on Quantitative Indicators reported by 34 signatory countries, the information included in the 11 desk studies carried out by UNECE/FAO Forestry and Timber Section, and the information reported by the Russian Federation for the previous edition of the State of Europe's Forests report. Given the lack of comparable current data from the Russian Federation and in order to maintain the internal consistency of the report, the information provided by the Russian Federation in 2011 is not included in the analysis or the graphs.

¹ SFM Qualitative Indicators are split in two groups: group A (five indicators) provides general information about the forest are governed in a country, group B (12 indicators) provides information about policies, institutions and instruments used to address specific topics.

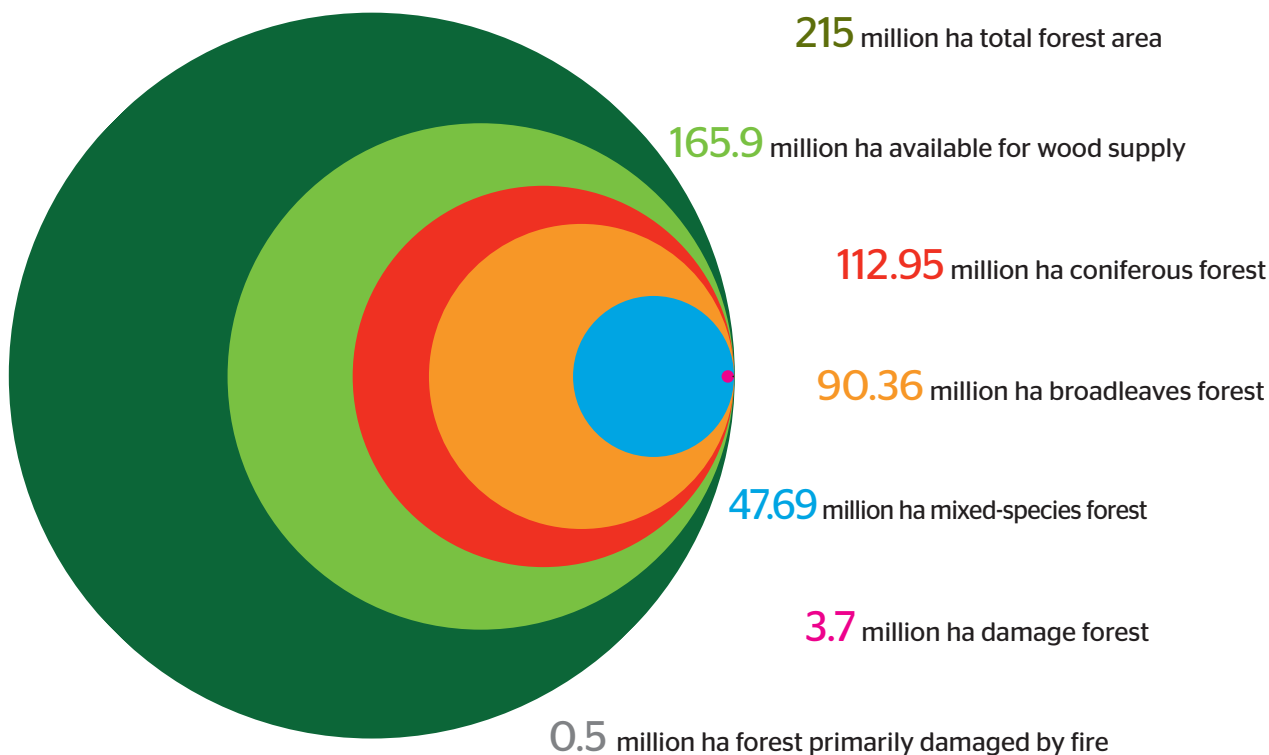




Reference: EFI (2012) based on NFI data and EC-JRC forest map. Modified by LUM

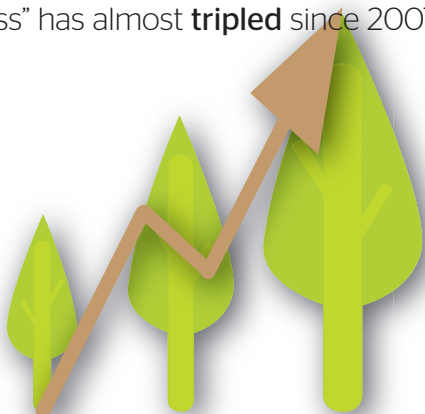
State of Europe's Forests 2015

European forests play an important role in environmental functions, crucial for our wellbeing, as fighting climate change, conserving biological diversity, protecting soils or preserving water resources. Furthermore, the productive role of European forests has a relevant value producing also significant socio-economic benefits

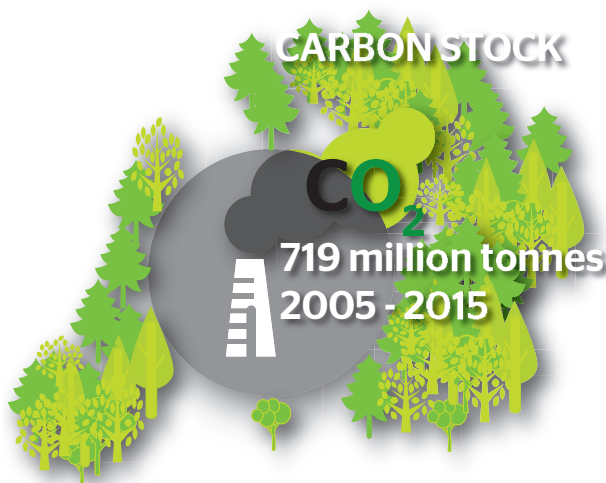


Forests cover **33%** of Europe's total land area and forest area continues to increase

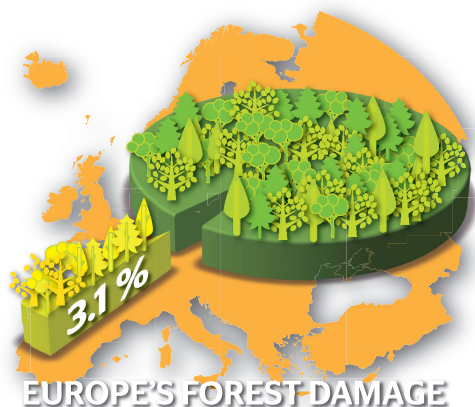
The number of countries with a "formal National Forest Programme (NFP) process" has almost **tripled** since 2007



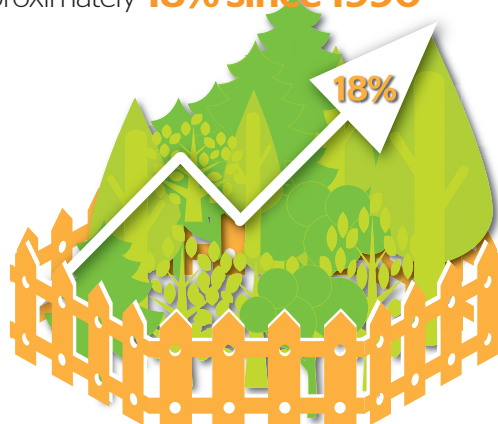
The average annual sequestration of carbon in forest biomass between 2005 and 2015 reached **719 million tonnes CO₂**



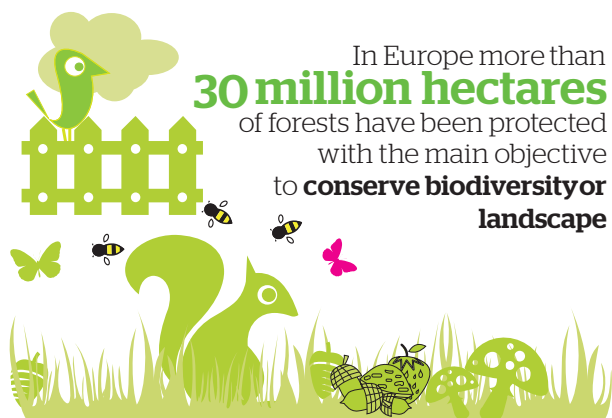
3.7 million ha of Europe's forests are **affected by forest damage**, most frequently caused by biotic agents



The number of **private forest holdings** has increased by approximately **18% since 1990**



Forest Policy has a strong focus on **biodiversity**



90% of forest and other wooded land reported as being **available for recreational purposes**



More than 110 million ha of forests in Europe are designated for the protection of water, soil and ecosystems, as well as the protection of infrastructures, managed natural resources and other services



Most reporting countries identified soil protection as a main policy objective. About a third of the reporting countries identified protection of water as a priority

Gross value added by the forest sector amounted to **€103 billion** (0.8% GDP in the region)



Research, education and training are crucial for the success of the forest sector

Overall policies, institutions and instruments for SFM

This chapter provides general information about the way forests are governed in the FOREST EUROPE signatories through policies, institutions and instruments for Sustainable Forest Management (SFM). These are covered by 5 Qualitative Indicators (Part I of pan-European Qualitative Indicators). Changes reported in these indicators over time reflect the responses of policy makers to challenges and opportunities related to forests and SFM.

A1. National Forest Programme (NFP) or similar and related forest policies

Thirty-two countries from the FOREST EUROPE region reported to have a National Forest Programme process in their country in 2014. The number of countries with a “formal NFP process” has almost tripled since 2007. Significant changes in NFP processes since 2011 mainly concern amendments or updates to address either the economic crisis or issues of implementation. While it is widely acknowledged that NFPs have encouraged broad participation, facilitating adoption and implementation of policies and strategies, they have been less successful in intersectoral coordination and integration of forest matters in broader development goals, which remains an issue.

A forest policy document such as “forest strategy”, “forest policy” etc. (be it a law or not) exists in practically all FOREST EUROPE countries, about half of which were developed through NFP processes and /or are endorsed at high political levels.

A2. Institutional frameworks

Since 2011, significant changes related to institutional frameworks have been undertaken in 17 out of the 34 countries reporting. Forestry administration units continue to be merged with bodies responsible for natural resources, rural development and nature conservation. In most countries, the management of public forests is the responsibility of a separate body, usually a publicly-owned state forest enterprise(s). The number of forest-related public staff reported in 2014 is about 14% less than figures reported in the SoEF 2011. Around 220,000 people work in forest-related public organizations in Europe, primarily in the management of public forests. High numbers of public forest management staff are employed in countries with large areas of public forests, where citizens expect a high level of social services from forests.

A3. Legal/regulatory frameworks and international commitments

In most FOREST EUROPE countries, forest laws currently in force are usually less than five years old. Nearly half of the reporting signatories (15 out of 34) have amended their legal and regulatory frameworks since 2011. The most frequent amendments to legal/regulatory frameworks address issues concerning the governance of land use change. With regard to international commitments, the majority of the signatories (20 out of 34) reported domestic policy and legal changes in the wake of international commitments such as the EU’s Timber Regulation and FOREST EUROPE Oslo Ministerial Decision and Resolutions.



A4. Financial instruments and economic policy

The majority of FOREST EUROPE reporting signatories (23 out of 34) have reported no changes in the national economic policy on forests (public or private) since 2011. In nearly half of the reporting signatories (16 out of 34), management of state-owned forests is financially self-sufficient or profit oriented. As reported by 23 countries, total public expenditure on all forest-related activities was €3,234,750,019 in the last reporting period. On average, this total sum would amount to around €17.90/ha of total public expenditure on forest and other wooded land per year. Subsidies are the most frequently used financial instrument to influence private forest management (used by 22 out of 34 signatories). Transfer payments are most frequently used for the conservation of forest biodiversity, followed by support of forest inventory and planning and protection of soil and water.

A5. Informational means

Most reporting signatories (31 out of 34) provided access to forest inventory data. More than one-third of countries had a written (governmental) forest-related outreach and communication strategy. Social media is used by an increasingly large number of countries in the pan-European region to strengthen forest communication.



Forest Resources and their Contribution to Global Carbon Cycles

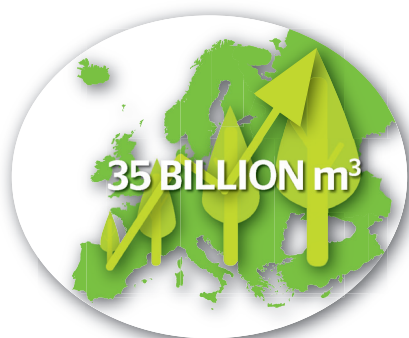
Forests cover more than one third of Europe`s land surface, and forest area continues to increase

Forest area amounts to 215 million ha in Europe, accounting for 33% of total land area, which is heterogeneously distributed among countries. Other wooded lands cover an additional area of 36 million ha. In Europe, the most forested region is Northern Europe (53%), while South-East Europe is the least forested region (23%). In comparison to other regions in the world, only South America has a higher percentage of forest cover (49%) than Europe (FRA 2010). 45% of European forests are predominantly coniferous, 36% are predominantly broadleaved, and the rest are mixed.

Around 80% of the forest area is available for wood supply.

Forest area has continuously increased since 1990, and the rate of increase is fairly stable at the European level and within the regions that are analysed in this report.

Growing stock in European forests is above the world average and still increasing



The total growing stock of forests in Europe amounts to 35 billion m³. The average density of growing stock in forests in the European region is 163 m³/ha, which is larger than the world average (133 m³/ha). Only the South American region, with 205 m³/ha, has a higher density of growing stock (FRA 2010). In the last 25 years, the total growing stock in forests increased on average by 403 million m³ every year, which corresponds to an annual increase rate of 1.4%. As the annual rate of forest area expansion was less than 0.4% in the same period, growing stock density in European forests increased from 126 m³/ha in 1990 to 163 m³/ha in 2015.

One third of European forests are uneven-aged



Forests in Europe are mainly even-aged and between 20 and 80 years old. 12% of forests are younger than 20 years old, 40% are between 20 and 80 years old and 18% are over 80 years old. Nearly a third of European forests are uneven-aged.

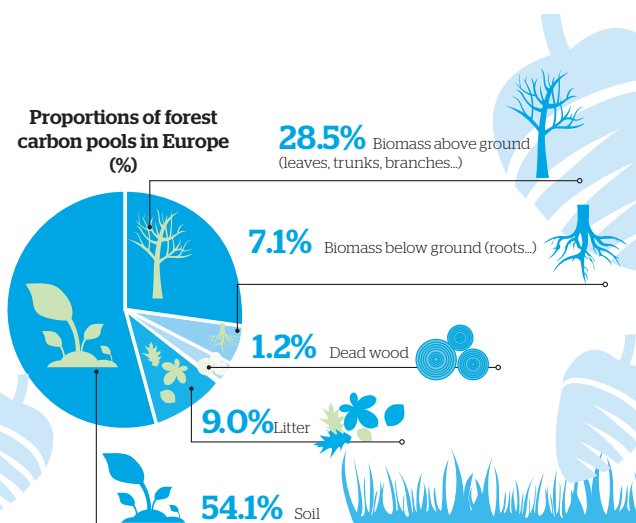


The forest area is expanding according to the defined targets in the countries with low forest cover

The main policy instrument for guiding and supporting the maintenance and expansion of forest area within the FOREST EUROPE region is forest law. The most reported policy objectives in relation to land use and forest area within the FOREST EUROPE countries are: afforestation of agricultural land unsuitable for agricultural use in countries where national laws do not prevent a change in land use; the management of erosion-sensitive mountainous areas improvements in the stability, productivity, diversity and naturalness of forests through an integrative forest management approach.

European forests are major carbon sink

European forests absorb large amounts of CO₂ from the atmosphere. Between 2005 and 2015 the average annual sequestration of carbon in forest biomass reached 719 million tonnes in the European region and 414 million tonnes in the EU-28. This corresponds to about 9% of the net greenhouse gas emissions for the European region and the EU-28. Carbon stocks in dead organic matter and soil organic carbon also seem to have increased, but these data remain unclear.



Carbon stocks and stock changes in forests as well as climate change mitigation and adaptation are the most frequently mentioned objectives

Policies on forest carbon and carbon balance have gradually shifted from a focus on sequestration capacity to a more integrated approach to sustainable forest management. The emphasis is on the full chain of sequestration, the production of wood and wood products, and especially on renewable bioenergy. As a result of climate change impacts, other important aspects are the adaptation of forests to these changes and the capacity of forests to mitigate climate change.

Most countries have established specialised entities responsible for implementing regulations, projects and programmes on climate change, renewable energy and energy efficiency. Subsidies accelerate measures designed to, above all, increase the use of wood biomass for bioenergy purposes.

Forest Ecosystem Health and Vitality

Depositions of air pollutants have continuously decreased since 1997, except for N-depositions, which have increased in Southern and Central-Eastern Europe

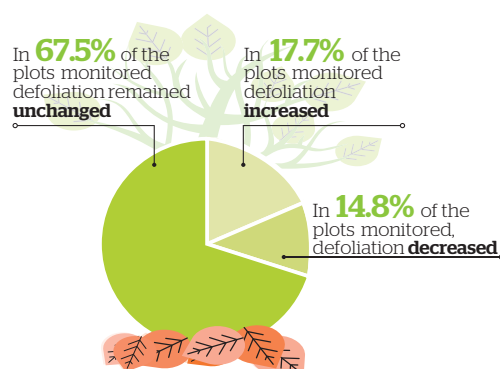
Depositions of nitrogen, sea-salt corrected sulphur, sea-salt corrected calcium, and sea-salt corrected magnesium currently vary across the different European regions. Nitrogen (both N-NH₄ and N-NO₃) predominates in Central-Western Europe and in some areas of Southern Europe. In Northern Europe, the deposition of nitrogen is generally lower than in other regions. Deposition of sea-salt corrected sulphur is equally high all across Europe, with the exception of Northern Europe, where the deposition is substantially smaller. The input of sea-salt corrected calcium and magnesium is generally higher in the Southern regions of Europe. Since 1997, nearly all elements have shown a decrease, which is larger in Central-Eastern Europe and smaller, but continuous, in Central-Western and Northern Europe. In recent years, nitrogen deposition on plots in Southern Europe has increased, but a slight increase in nitrogen deposition in the Central-Eastern European region has also been observed.

Data from forest areas correspond with previous assessments showing that soil organic carbon concentration levels have increased following a South-East to North-West trend in the EU

However, samples from the Mediterranean mountainous zone have a mean level that is comparable to more Northern and westerly parts of the EU. 15.4% of forest soil survey samples come from peat, mainly from Scandinavia. Given the significance of peat ecosystems, their carbon stock and carbon dynamics play a crucial role in the control mechanism of climate change, emphasising the huge importance of the northern peat forest areas.

Defoliation remained unchanged on around two thirds of the plots monitored over the 10-year period

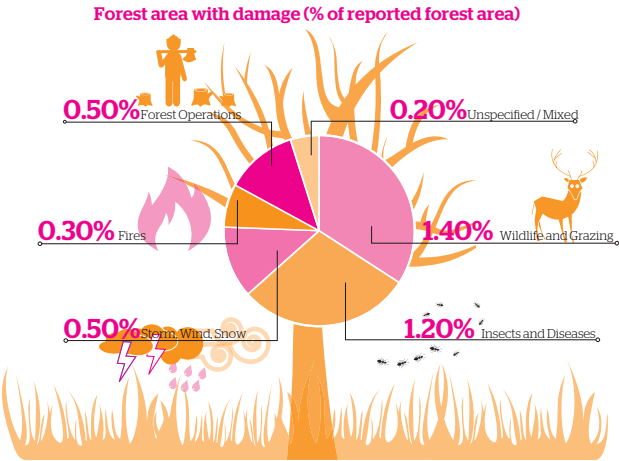
Crown defoliation is a key factor that indicates the health and vitality of a tree. Nearly one quarter of the trees surveyed in 2014 were classified as damaged or dead. However, tree crown condition remained unchanged on two thirds of the plots monitored over the 10 years within the period 2002 to 2014.



3.1% (or 3.7 million hectares) of Europe’s forests are affected by forest damage, most frequently caused by biotic agents

Wildlife and grazing are the damaging agents that are most frequently observed in Europe’s forests, affecting approximately 1.4% of the European forest area. Damage by wildlife and grazing are highest in Central-Eastern Europe and South-East Europe.

Insects and diseases are the second most frequent causal agent, affecting 9% of the forest area in South-West Europe and 3% in South-East Europe. Damage caused by forest fires, storms, wind and snow, and also by forest operations has been observed in well below 1% of the European forest area.



However, the amount of area affected by the different agents gives no indication of the severity of the damage and the associated economic losses.

Most countries reported specific objectives related to forest health and vitality (i.e. improved resistance, monitoring systems and climate change adaptation)

Nearly 30% of countries revised policy objectives by putting stronger emphasis on climate change or control of problems such as forest fires, pests and diseases, and invasive species. Most of the measures are aimed at monitoring forests pests and diseases.

Continuity in institutional, legal and financial instruments for maintaining and enhancing health and vitality of forests has been reported since 2011. A major improvement reported has been the new European Commission COM(2013) 267 Regulation on protective measures against plant pests.

Changes in informational means include improvements such as new mobile applications and web portals, as well as the use of social media to reach a wider audience.

Productive Functions of Forests

Increments in European forests substantially exceed fellings

Forests in Europe are growing at a high rate. In all European regions, net annual increment exceeds fellings. In Central-Western Europe, fellings were higher than in all other regions due to catastrophic events, mainly storms. Harvesting of wood has decreased in Europe since the previous reporting period.

Europe remains one of the largest producers of roundwood in the world

The overall value of marketed roundwood reached more than €18,000 million in 2010 and is still increasing. Europe's forests are still one of the main sources of roundwood in the world. The reported roundwood value by unit is highly variable among reporting countries. The demand for woodfuel is increasing at a high rate, especially in some Western European countries.

The total value of marketed non-wood goods reported was almost €2.3 billion

73% of the total value generated by non-wood goods comes from marketed plant products. The importance of various non-wood goods differs among countries. They can be an important source of income, especially at the local level.

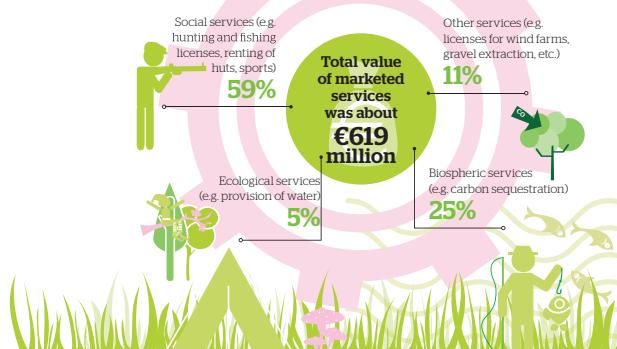
The most relevant services reported are biospheric and social services.



The total reported value for marketed services is around €619 million

Biospheric and social services dominate in the reported data. Bearing in mind the relatively low number of responding countries, the total reported value for marketed services was around €619 million, which represents a further decrease in comparison with the €818 million reported in 2011 and the €941 million reported in 2007. Due to the incompleteness

Even if data on marketed services are very limited, it is clear that they represent a **non-negligible income for forest owners.**



of the data, it is not clear if this development relates to an actual fall in the marketed volumes of these services, or –what is perhaps more likely –the large variations in the monitoring and reporting of these values.

Most forests in Europe have a management plan

An area of over 155 million hectares is covered by forests under management plans or equivalents in the reporting countries, representing over 70% percent of Europe. There are substantial differences in the extent, form, content and importance of these tools across Europe. Since 1990, the proportion of forests covered by management plans or equivalents increased by 1% annually.

Few changes were reported concerning the objectives related to the production and use of wood, with most of such changes connected to the bioenergy sector. About 30% of the signatory countries reported developments in informational means

Two thirds of the reporting countries had targets for increasing production and use of wood in the context of SFM, and few of them (6 out of 34) reported new explicit targets for increased use of wood, notably in the bioenergy sector.

The implementation of the FLEGT action plan and the EU Timber regulation, and a greater emphasis on facilitating the incorporation of private forest owners into active management have been reported as the main drivers for institutional change.

While financial instruments related to wood production and use have generally remained stable, nearly a third of reporting signatory countries (10 out of 34) have reported changes in the informational means related to the production and use of wood (i.e. a register of forest owners or a central register for due diligence, among others).

While 25% of the reporting signatory countries reported changes in specific objectives, the majority showed continuity in relation to mechanisms and instruments

Although most countries reported no changes, nearly a quarter reported changes in policy regarding the production and use of non-wood goods and services (mostly in the sense of improving the quantification of the attention paid to them).

Forest law is the main legal instrument for regulating non-wood forest products, and the majority of countries have reported continuity in the use of existing legal/regulatory, financial and informal means in this specific field.



Biological Diversity in Forest Ecosystems

Mixed species stands dominate European forests

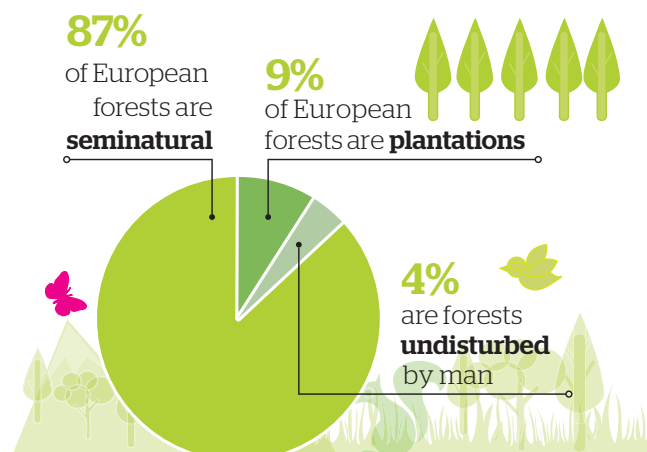
About 70% of the forests in Europe are dominated by two or several tree species, and the remaining 30% are dominated by one tree species alone, mainly coniferous. The area of forest that consists of a single tree species has continuously decreased during the last 15 years.



Regeneration approaches and natural expansion vary widely across Europe

Natural expansion predominates in South-East and South-West Europe, forests in Central Europe and in Northern Europe are mainly regenerated by planting, and natural regeneration is more frequent in Central-West Europe.

4% of European forests are undisturbed by man



About 87% of European forests are classified as seminatural. Undisturbed forests cover 4% and plantations 9% of the forest area in Europe. Most undisturbed forests are found in Northern Europe and Central-East Europe.

Introduced tree species dominate 4.4% of European forests

Introduced tree species have a key role in timber production. Most of the area of introduced species is covered by *Pinus* spp. and *Picea* spp.

Tree species that are considered to be invasive occupy 0.5% of Europe's forests.

Deadwood is increasing slightly in European forests

The average volume of deadwood, both standing and lying, ranges between 8 m³/ha in Northern Europe and 20m³/ha in Central-West Europe. The amount of deadwood, particularly standing deadwood, has increased slightly in most of Europe's regions over the past 20 years. The amount of deadwood varies considerably between forest types, standing volume of the stands, decay rate, and vegetation zones, and is influenced by forest management regimes.

The areas managed for conservation of forest genetic resources and for seed production have increased over the last 25 years

There are significant gaps in the geographical representativeness of areas managed for *in situ* genetic conservation within the distribution range of European tree species.

Overall, the areas were managed for a total of 145 tree species, including subspecies and hybrids; however, three to five species alone account for half of the areas, and many other important tree species are neglected.

In 2015, more than half a million ha of forest in Europe were managed for genetic conservation and over a million ha for seed production. The number of species conserved and managed for seed production increased in most European countries.

Two thirds of European forests are in a core natural landscape pattern

In the period 2000-2012, this pattern tended to increase, suggesting local defragmentation processes (natural expansion of forests or newly planted forests). In most countries, however, the number of landscapes with highly connected forests either remained stable or decreased, suggesting that distance and landscape permeability in between forest areas are not adequately accounted for in management and planning. 35% of European forests are significantly fragmented by agriculture and artificial lands. Landscapes with poorly connected woodlands represent more than 60% of EU territory.

Forests are an important habitat for threatened species



Threatened forest species include birds, mammals, and other vertebrates and invertebrates as well as trees and other plant species. Most of the forest tree species in Europe are not threatened. However, information on other threatened species is still fragmented and heterogeneous.

More than 30 million ha of European forests are protected



More than 30 million ha of European forests are protected with the main objective to conserve biodiversity or landscape. Over the last 15 years, the area of protected forests has increased by half a million hectares annually. Approaches to forest protection vary considerably within Europe.

A large majority of countries (more than 90%) have specific objectives in relation to biodiversity. Almost half have reported legislative developments and just small changes in other instruments

Biodiversity remains an important topic for forest policy and management in Europe. Compared to the previous reporting period, biodiversity-related forest policy objectives have been maintained. Regulatory instruments continue to play an essential role in the conservation of biodiversity in forests and have been reinforced by new financial and informational measures. The EU's biodiversity policy is a major trigger for change relating to informational, financial and legislative instruments at the national level.

Protective Functions in Forest Management

Forest fulfill all protective functions

More than 25 million ha of forests in Europe are designated for the protection of water supplies, the prevention of soil erosion and the provision of other important ecosystem services.

Forests protect infrastructures and managed natural resources from natural hazards

Around 30 million ha of forests in Europe are designated for the protection for infrastructures and managed natural resources. Often the protective role of forests covers a wide range of aspects, including infrastructures and managed natural resources, but also other services such as water, soil and ecosystem protection. Most protective forests are in the Central-East European region. They are also highly relevant in countries with steep terrain (e.g. Switzerland or Italy).

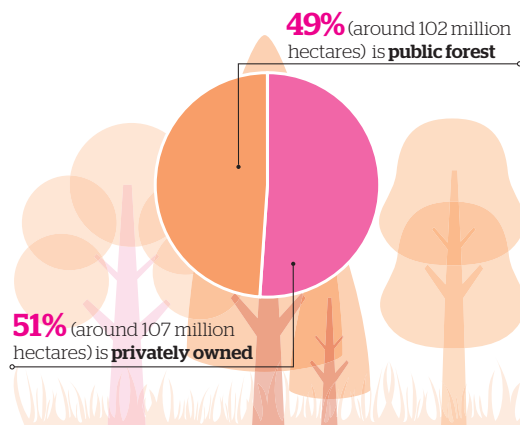
Long term commitment on protection of water and soil in Europe

The main policy objectives related to the protective functions of forests, namely the protection of soils, water resources and biodiversity have remained unchanged since 2007. This shows a long-term commitment to maintain and enhance the protective functions of forests. Most reporting countries identified soil protection as a main policy objective, with particular attention given to mitigating and preventing soil erosion, and about one third of countries identified protection of water resources as a priority. Institutional and regulatory frameworks as well as financial instruments and informational means provide a solid basis for the implementation of related policies.

Socio-Economic Functions and Conditions

The number of private forest holdings is increasing

Privately-owned forest area has slowly but steadily increased. The number of publically-owned forest holdings has been relatively constant or decreasing. While the number of private forest holdings is much higher than public holdings, the majority of private holdings are forests of less than 10 ha in size.



The forest sector contributed around 0.8% to GDP (Gross Domestic Product) in the region as a whole

In 2010, total gross value added by the forest sector in Europe amounted to €103 billion (0.8% of GDP). This figure is lower than the value reported in 2000 (1.2% of GDP). The forest sector was affected by the recent global economic recession in 2008-2009 and has been on a slow path of recovery ever since.

7 out of the top 10 countries with the highest value added in the forest sector are in Central-West Europe and South-West Europe, and the sector is relatively more important to local economies (i.e. higher percentage of GDP) in Northern Europe and Central-East Europe. The value added in the pulp and paper industry in Europe continued the general downward trend, although the rate of decline is lower than in the past.

Most parts of the regions in Europe saw an annual increase in net value added

During the period, the increment in net value added per ha varied considerably between regions (from 0.1 to 5.3%). Entrepreneurial income showed a pattern similar to net value added.

In the last year of reference, 475 million m³ of roundwood equivalent was produced in Europe.

Expenditures for services remain constant, while revenues from services are increasing

Governments in Europe currently spend more than €3 billion on forest services, with an average of €37 per ha. Expenditures were stable during the period 2000-2010. However, there is considerable variability across individual regions. Government revenue from forest products and services reached at least €1.8 billion in 2010, with an average of €40 per ha. Revenue steadily increased during the decade 2000-2010 in all regions of Europe.

Forest sector still plays an important role in relation to employment

In most European countries, the number of people employed in the forest sector has decreased. There is a huge diversity of qualifications, with pronounced differences between regions. Despite that, the forest sector in Europe provided jobs and income for at least 3 million people, plus an unaccounted number of people in informal employment, which is not reflected in the reported data. Therefore, the forest sector plays an enormous role in the livelihood of rural areas. The forest sector is still a “male domain”.

Around **30% of people employed** in the forest sector in Europe are **49 years old or over**.



Forest work remains a dangerous occupation



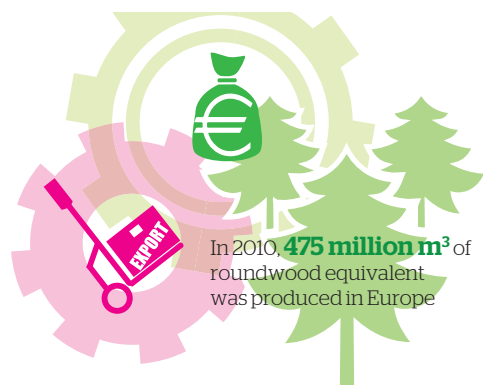
Despite the fact that fatal and non-fatal occupational accidents decreased considerably in the last 25 years, forestry work remains a dangerous occupation. Occupational accidents are highest in countries that are characterized by difficult topography.

During the 2008-2009 financial crisis, wood consumption decreased in Europe

Wood consumption varies considerably among different regions of Europe and mainly depends on forest resource endowment and cultural differences in the use of wood. After a steady growth in wood consumption between 1990 and 2005 in most regions, there was a considerable slowdown in consumption between 2005 and 2010, during the financial crisis.

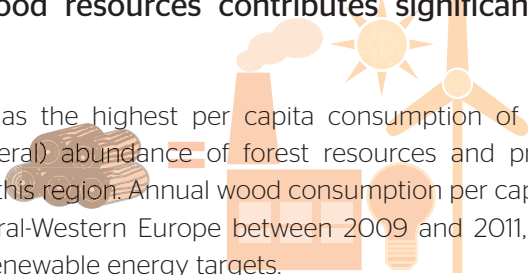
Europe has shifted from a net importer to a net exporter of primary wood and paper products

Trade in roundwood and all of its products, both within Europe and with its trading partners, was on the rise until the 2008-2009 global financial crisis. Exports doubled in volume between 1990 and 2005, and imports increased by 60%. With many European countries in recession during that period, trade volume decreased, whereas the value of trade remained steady from 2005 (when adjusted for fluctuations in currency exchange rates). This shift was ongoing until 2005, mainly because of contracting consumption and imports. Government policies supporting renewable wood energy resulted in a boom in the trade of chips and pellets.



Energy from wood resources contributes significantly to renewable energy targets

Northern Europe has the highest per capita consumption of wood-based energy, reflecting the (general) abundance of forest resources and prominence of wood-based industries in this region. Annual wood consumption per capita increased in both Northern and Central-Western Europe between 2009 and 2011, partly reflecting the drive to live up to renewable energy targets.

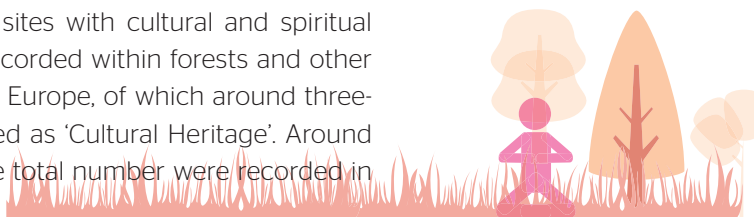


Most forests in Europe are accessible for recreation

75% of countries report that in 2010, at least 90% of their forests and other wooded land provided access to the public for recreational purposes. Two thirds of countries report that less than 6% of their forests and other wooded land has recreational use as a main management goal.

More than 1.25 million cultural sites are located in European forests

Around 1.25 million sites with cultural and spiritual values have been recorded within forests and other wooded land across Europe, of which around three-quarters were classed as 'Cultural Heritage'. Around three-quarters of the total number were recorded in Sweden.



Most reporting signatories have specific policy objectives in relation to the economic viability of forests

The majority (27 out of 34) reported specific policy objectives in relation to the economic viability of forests, and only few countries reported changes in policy objectives related to the economic viability of forests.

Most countries did not reported any changes to legal incentives, economic/financial incentives, or informational and communication means. Few signatories (7 out of 34) reported changes to institutional frameworks. Although most of the reported changes were part of overall institutional reforms, 3 countries reported specific developments related to institutional arrangements, such as the creation of specific departments or sections.

The majority of reporting signatories have specific objectives related to employment

The majority of reporting signatories (25 out of 34) have specific objectives related to employment (generally oriented towards the maintenance or increase of forest employment, the improvement of working conditions, and skills and qualifications, among other things). For most countries (30 out of 34), these objectives are a continuation of the objectives reported in 2011.

More countries are promoting participation, with a wide variety of means being used, as was also stated in 2011

A total of 25 out of 34 signatory countries reported specific policy objectives in relation to public participation and awareness. Compared to 2011, more countries are currently aiming to promote participation in forest planning and decision-making processes. For nearly a third of the reporting countries, the main objective is to enhance public awareness of forest protection and conservation and increase understanding of the multifunctional role of forests.

Enhancing research activities, cross-sectoral cooperation, innovation and technological development, as well as improving the quality and efficiency of forest education and training at all levels is becoming more important

Most signatories (26 out of 34) reported specific objectives in relation to research, training and education, and about 25% reported developments in these specific objectives since 2011. With regard to education and training, the situation remains similar to the previous reporting period.

Increased interest has been shown through more countries reporting and a significant proportion (60%) of positive developments in cultural and spiritual values

The number of countries that provided data on this matter increased from 29 to 31 during the last four years, of which 60% reported positive changes.

Concerning key measures adopted, nearly 30% of countries reported on diverse measures in relation to cultural and spiritual values.

Most signatory countries did not report any changes to overall financial instruments and economic policy contributing to cultural and spiritual values. Concerning information instruments, only a few (5 out of 31) countries reported positive developments in relation to cultural and spiritual values (e.g. nature parks and information centres for visitors, new publications, etc.) or more cultural events and programmes with forest schools.



