



Brussels, 16.7.2021
COM(2021) 572 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

New EU Forest Strategy for 2030

{SWD(2021) 651 final} - {SWD(2021) 652 final}

1. Introduction

Forests and other wooded land¹ cover over 43.5²% of the EU's land space and they are essential for the health and wellbeing of all Europeans. We depend on them for the air we breathe and the water we drink and their rich biodiversity and unique natural system are home and habitat for most species found on land around the world.³ They are a place to connect with nature, thus helping us to strengthen our physical and mental health, and are central to preserving lively and prosperous rural areas.

Forests have long held a hugely important role in our economy and society, creating jobs and providing food, medicines, materials, clean water and more. For centuries, forests have been a thriving hub for cultural heritage and craftsmanship, tradition and innovation. But as important they were in the past, they are essential for our future. Forests are a natural ally in adapting to and fighting against climate change and will play a vital role in making Europe the first climate neutral continent by 2050. Protecting forest ecosystems also lessens the risk of zoonotic diseases and global pandemics. A healthy future for people, planet and prosperity therefore depends on ensuring healthy, biodiverse and resilient forests across Europe and the world.

Despite this imperative, European forests are under increasing strain – partly as a result of natural processes but also because of increased human activity and pressures. While forest area has become bigger in the last decades thanks to natural processes, afforestation, sustainable management and active restoration and while this has resulted in several trends moving upwards, the forest conservation status should be considerably improved, including in the 27% of the EU forest area that is protected and should be the healthiest⁴. Climate change continues to negatively affect European forests, particularly but not only in areas with mono-specific and even-aged forest stands. Climate change has also brought to light previously hidden vulnerabilities aggravating other destructive pressures such as pests, pollution and diseases, and it affects forest fire regimes, leading to conditions under which the extent and intensity of forest fires in the EU will increase in the next years⁵. Tree cover loss has accelerated in the last decade, because of extreme weather events and increase in harvesting for different economic purposes⁶.

This new EU Forest Strategy aims to overcome these challenges and unlock the potential of forests for our future, in full respect for the principle of subsidiarity, best available scientific evidence and Better Regulation requirements. It is anchored in the European Green Deal and the EU 2030 Biodiversity Strategy and it recognises the central and multi-functional role of forests,

¹ Sustainable Development in the European Union; Monitoring report on the progress towards the SDGs in an EU context, 2021 edition (<https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-03-21-096>). FAO defines a forest as lands of more than 0.5 hectares, with trees higher than 5 metres and a tree canopy cover of more than 10 %, which are not primarily under agricultural or urban land use. The FAO defines other wooded land as land of more than 0.5 hectares with a canopy cover of 5-10 % of trees able to reach a height of 5 metres in situ; or a canopy cover of more than 10 % when smaller trees, shrubs and bushes are included <http://www.fao.org/3/I8661EN/i8661en.pdf>, or the EUROSTAT definition: <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Forest>.

² <https://ec.europa.eu/eurostat/documents/3217494/12069644/KS-FK-20-001-EN-N.pdf/a7439b01-671b-80ce-85e4-4d803c44340a?t=1608139005821>.

³ Forests contain 60,000 different tree species, 80 percent of amphibian species, 75 percent of bird species, and 68 percent of the world's mammal species (<http://www.fao.org/3/ca8642en/CA8642EN.pdf>).

⁴ Based on Member States' reports (covering the 2013-2018 period) under Article 17 of the Habitats Directive on the conservation status of habitats listed in Annex I of that Directive, only 49% of forest habitats is in a good condition. Annex I forest habitats cover about 27% of all forested area in the EU.

⁵ Costa, H., de Rigo, D., Liberta, G., Houston Durrant, T., San-Miguel-Ayanz, J. (2020) European wildfire danger and vulnerability in a changing climate: towards integrating risk dimensions. JRC PESETA IV project – Task 19. Luxembourg: Publication Office of the European Union.

⁶ <http://www.fao.org/faostat/en/#data/FO> and <https://publications.jrc.ec.europa.eu/repository/handle/JRC124374>.

and the contribution of foresters and the entire forest-based value chain for achieving by 2050 a sustainable and climate-neutral economy while ensuring that all of ecosystems are restored, resilient, and adequately protected. This Strategy replaces the EU Forest Strategy adopted in 2013⁷ and evaluated in 2018⁸.

The commitments and actions proposed in the Strategy will contribute to achieving the EU's greenhouse gas emission reduction target of at least 55% in 2030, as set out in the European Climate Law⁹, and which will be implemented by the measures laid out in the in the Fit for 55 package¹⁰. According to the Climate Law, in order to reach the 2030 target and the climate-neutrality objective, the relevant EU institutions and Member States shall prioritise swift and predictable emission reductions and, at the same time, enhance removals by natural sinks. Greenhouse gas emissions and removals by forests and forest products will play a crucial role in reaching the ambitious net removal target for the Union of -310 million tonnes of carbon dioxide-equivalents, as set out in the proposal for a revised Regulation on Land Use, Land Use Change and Forestry¹¹. The strategy also sets out the policy framework to deliver growing, healthy, diverse and resilient EU forests, which contribute significantly to our biodiversity ambition, secure livelihoods in rural areas and beyond and support a sustainable forest bioeconomy that relies on most sustainable forest management practices. The latter build on a recognised and internationally agreed dynamic sustainable forest management concept that takes into account the multifunctionality, the variety of forests and the three inter-dependent pillars of sustainability.

To succeed in this transition we will need larger, healthier and more diverse forests than we have today, notably for carbon storage and sequestration, reduction of the effects of air pollution on human health and halting loss of habitats and species. This is a precondition for forests to be able to provide livelihoods and deliver on their socio-economic functions for decades to come. To get there, we will have to reverse negative trends, improve monitoring to better capture the state of our forests, as well as step up our efforts to protect and restore forest biodiversity and with that ensure forest resilience. We must equally importantly guarantee the availability of wood, as well as boost non-wood forest-based economic activities to diversify local economies and jobs in rural areas.

Given the increasing and sometimes competing demands on forests, we must also ensure that the amount of wood we use remains within the sustainability limits¹² and is optimally utilised in line with the cascading principle¹³ and the circular economy approach. In that manner it caters as much as possible for substituting fossil based by long-lived circular materials and products that are of highest value for carbon storage and circular economy.

⁷ COM(2013) 659 final.

⁸ COM (2018) 811 final.

⁹ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999.

¹⁰ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Fit for 55': delivering the EU's the EU's Climate Target on the way to climate neutrality 2030, COM(2021) 550 final.

¹¹ Proposal for a Regulation of the European Parliament and of the Council amending Regulation 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) 2018/1999, COM(2021) 554 final.

¹² [brief_on_role_of_forest-based_bioeconomy_in_mitigating_cc_online\(2\).pdf](#)

¹³ The cascading principle was already enshrined in the EU Forest Strategy 2014-2020. Under this principle, wood is used in the following order of priorities: 1) wood-based products, 2) extending their service life, 3) re-use, 4) recycling, 5) bio-energy and 6) disposal.

The EU Forest Strategy is written at the onset of rapidly accelerating climate and biodiversity crises. The next decade is crucial and the Strategy therefore presents a concrete plan for 2030, combining regulatory, financial and voluntary measures.

It includes measures for strengthening forest protection and restoration, enhancing sustainable forest management, and improving the monitoring and effective decentralised planning on forests in the EU with a view to ensuring resilient forest ecosystems and enabling forests to deliver on their multifunctional role. To further support sustainable forest-based bioeconomy for a climate neutral future, the strategy proposes measures for innovation and promotion of new materials and products to replace fossil-based counterparts as well as for boosting the non-wood forest economy, including ecotourism. The Strategy also focuses on sustainable re- and afforestation and is accompanied by a roadmap for planting at least 3 billion additional trees in the EU by 2030.

With this strategy, the Commission is presenting an ambitious vision, building on the strong engagement, motivation and dedication of all forest and land owners and managers. Their role in the provisions of ecosystem services is key and needs to be supported. The Strategy seeks to develop, among other things, financial incentives, in particular for private forest owners and managers, for the provision of these ecosystem services.

All the measures are to be designed and implemented in close cooperation with the Member States as well as public and private forest owners and other caretakers of forests, as they are the enablers of the necessary changes and of a vibrant and sustainable forest-based bioeconomy in the EU. The Strategy seeks the active engagement of all relevant actors and levels of governance, from Member States to forest owners and managers, forest-based industries, scientists, civil society and other stakeholders.

While the Strategy is focussed only on EU forests and aims to make an important contribution from the EU to the UN 2030 Sustainable Development Goals, in particular the Goal 15¹⁴, it recognises that forest-related challenges are inherently global and that forest area continues a deeply worrying decrease by an average of 4.7 million hectares per year, with deforestation occurring at a rate of 10 million hectares per year¹⁵. The Commission reaffirms its full commitment to deliver on its 2019 Communication to Protect and Restore the World's Forests¹⁶, including by working in close partnership with its global partners on forest protection, restoration and sustainable forest management, as well as adopting a legislative proposal to ensure that products, whether sourced in the EU or from third countries, sold on the EU market do not contribute to global deforestation. EU cooperation will promote integrated approaches towards forests that address governance, sustainability and legality of value chains, biodiversity and livelihoods of local populations. High ambitions on forests are coherent with EU's efforts to lead on the climate agenda and to implement the 2030 EU biodiversity strategy including with an ambitious Global Biodiversity Framework.

2. Supporting the socio-economic functions of forests for thriving rural areas and boosting forest-based bio-economy within sustainability boundaries

Forests and the forest-based sector provide multiple socio-economic functions and benefits, including additional jobs and growth opportunities in rural areas and recreational functions contributing to citizens' physical and mental health.

¹⁴ Goal 15 sets out a mission to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

¹⁵ FAO (2020) *ibid.*

¹⁶ EU Communication 2019 - Forests - Environment - European Commission. (europa.eu).

There are an estimated 16 million private forest owners in the EU, and 40% of forests are under different public ownership schemes. In 2018, in the EU, 2,1 million people¹⁷ were working in the traditional forest-based sector (forest management, logging, sawmilling, wood-based products, cork, pulp and paper), generating a gross value added of EUR 109 855 million. Another 1,2 million people worked in manufacturing of wood-based furniture and in printing on paper such as books and newspapers, generating respectively EUR 25 and 31 billion gross added value¹⁸. In 2018, 397 000 enterprises were active in wood-based industries, representing 20% of manufacturing enterprises across the EU. Adding to these activities the sectors of edition for printed documents, wood-based heat and power as well as wood-based construction, the extended forest-based value chains supported 4 million jobs in the green economy. This number decreased by about 20% from 2008 to 2013 and remained quite stable since then¹⁹.

Sustainable raw wood and non-wood materials and products are key in the EU's transition to a sustainable climate-neutral economy.

Sustainably-produced and long-lived wood-based products can help to achieve climate neutrality by storing carbon and substituting fossil-based materials, in particular through their embodied carbon add to carbon removal that otherwise takes place through biological processes²⁰. At time of harvest or natural death, trees release carbon into the atmosphere e.g. by fires, burning for energy, incineration or over time by natural decaying processes. The carbon removal period can be significantly extended when transforming woody biomass into wood materials and products with a long-life cycle. The Land Use, Land Use Change and Forestry (LULUCF) Regulation²¹ ensures that Member States report and account for changes in carbon stocks not only in forests but also in harvested wood products carbon pools, which will be reinforced under the revised regulation proposed as part of Fit-for-55 package. Harvested wood products in the EU represent an active net carbon sink of around -40 MtCO₂e/year, while also generating climate benefits through a material substitution effect, with values ranging from -18 to -43 MtCO₂e/year²². The longer-lasting the product, the better it is for climate mitigation, which is then reflected in the increased net removals under Member States' LULUCF reporting and accounting, and, reflecting substitution effects, indirectly reported and accounted as reduced emissions in other sectors.

It is crucial that, when building a sustainable and climate-neutral economy, we optimise the use of wood in line with the cascading principle, in particular through market incentives. This means that wood should be used as much as possible for long-lived materials and products to substitute their carbon intensive and fossil-based counterparts, for example in buildings and furniture,

¹⁷ Eurostat, Labour Force Survey.

¹⁸ Source for the gross value added: Eurostat 2020: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Wood_products_-_production_and_trade#Wood_based_industries and table [sbs_na_ind_r2]; employment: table [lfsa_egan22d] and Robert et al. 2020.

¹⁹ Robert, N.; Jonsson, R.; Chudy, R.; Camia, A. The EU Bioeconomy: Supporting an Employment Shift Downstream in the Wood-Based Value Chains? *Sustainability* 2020, 12, 758. <https://doi.org/10.3390/su12030758>.

²⁰ COM (2020) 98 final.

²¹ Regulation 841/2018.

²² Harvested wood product categories include 1) sawn wood, 2) wood panels and 3) paper. In GHG mitigation they have, by default, a first decay function with different half live values (35, 25 and 2 years). This way paper decays much faster (has a much lower mitigation potential over time) than the other categories. Anything that does not fall within these category/uses is instantaneously oxidized. Grassi, G., Fiorese, G., Pilli, R., Jonsson, K., Blujdea, V., Korosuo, A. and Vizzarri, M., Brief on the role of the forest-based bioeconomy in mitigating climate change through carbon storage and material substitution, Sanchez Lopez, J., Jasinevičius, G. and Avraamides, M. editor(s), European Commission, 2021, JRC124374.

whilst acknowledging that not all wood is fit for such purpose. The processing innovations in this field can also provide bio-based materials and products with lower environmental footprint than the fossil-based ones.

Short-lived wood-based products also have a role to play, especially in substituting their fossil-based counterparts. Wood used for the production of short-lived products and also for energy production should rely on wood that is unsuitable for long-lived materials and products, and secondary woody biomass such as sawmill by-products, residues and recycled materials. Technological advances already facilitate processing of woody biomass residues and waste for circular innovative materials and products thus diversifying the bio-based products and offering climate-friendly solutions for new or emerging application areas.

Respect for circular economy principles is also crucial. Priority should be on better using, reusing and recycling all wood-based products, including for example from construction and demolition sites, as enhanced circularity of products offers a possibility of maintaining all wood-based products longer in the economy for the multiple uses.

The supply of wood products should be done in synergy with improving the conservation status of European and global forests, and preserving and restoring biodiversity for forest resilience, climate adaptation and forest multifunctionality. Wood of high ecological value should not be used, and the wood-based bioeconomy should remain within the boundaries of sustainability and be compatible with the EU's 2030 and 2050 climate targets and biodiversity objectives. As indicated in recent studies²³, in the short to medium term, i.e. until 2050, the potential additional benefits from harvested wood products and material substitution are unlikely to compensate for the reduction of the net forest sink associated with the increased harvesting. Member States should pay attention to this risk, which is in their responsibility under relevant applicable legislation.

In addition to the wood-based economy, forests offer a variety of equally important additional products and services, from food to ecotourism, which support the economies and the social fabric in rural areas. The estimated value of all harvested non-wood products in Europe is EUR 19.5 billion per year. This amounts to EUR 77,80 per hectares per year. 86% of the harvested non-wood forest products are for personal consumption.²⁴

The EU Forest Strategy acknowledges and aims to boost the entire sustainable forest bioeconomy that works in synergy with the EU's increased climate and biodiversity ambition.

2.1. Promoting sustainable forest bioeconomy for long-lived wood products

Within the boundaries of sustainable availability and supply of wood, the forest-based sector holds significant economic potential for improving its production of sustainable and legally harvested wood for circular and long-lived materials and products. This requires stimulating the demand in downstream industries and promoting forest management practices, production tools and processes that are better adapted to different future forest resources.

²³ JRC. Brief on the role of the forest-based bioeconomy in mitigating climate change through carbon storage and material substitution, 2021. [brief on role of forest-based bioeconomy in mitigating cc online \(2\).pdf](#).

²⁴ Lovrić, M., Da Re, R., Vidale, E., Prokofieva, I., Wong, J., Pettenella, D., ... Mavsar, R. (2020). Non-wood forest products in Europe – A quantitative overview. *Forest Policy and Economics*, 116, 102175. <https://doi.org/10.1016/j.forpol.2020.102175>

To increase the supply of long-lived wood products, investments are needed throughout the wood processing chain. Wood processing industries should be supported to better adapt to the changing and diversifying resources of forests. Investments should also focus on the production of long-lived wood products from lower quality logs, from more hardwood species, and anticipating greater fluctuations in production over time.

From this perspective, the most important **role of wood products is to help turn the construction sector from a source of greenhouse gas emissions into a carbon sink**, as set out in the Renovation Wave Strategy²⁵ and the new European Bauhaus initiative²⁶. There is considerable room for improvement. With less than 3% of market share, wood products are still only a tiny fraction of building materials in Europe that largely remain dominated by energy intensive and currently fossil fuel-based materials²⁷. **The Commission will develop a 2050 roadmap for reducing whole life-cycle carbon emissions in buildings**. In the context of the revision of the Construction Products Regulation²⁸, **the Commission will develop a standard, robust and transparent methodology to quantify the climate benefits of wood construction products and other building materials**.

Promoting the use of wood products in the EU also requires demand-side actions, including combating misconceptions about fire risk and lack of durability, and acknowledging the multiple advantages of wood products in terms of reducing pollution and energy consumption during the construction, use and deconstruction phases. Construction engineers and architects should be incentivised to design buildings with wood. Construction companies, following the principles of life cycle thinking and circularity, should reflect the full benefits of wooden construction in their risk premiums and business models.

Following the **New European Bauhaus**²⁹, research and innovation on architecture, green design and construction materials should be amplified, including on industrial improvements to use more low-grade wood, especially from hardwood species and on how to enhance cascading use and increase circularity, targeting the recovery of existing wood for the manufacture of engineered wood products. In particular, the Innovation Fund³⁰, dedicated to the funding of innovative low-carbon technologies, offers support possibilities for innovative projects in construction, including wood construction.

Regulatory approaches also need attention. Scaling up the production of long-lived wood products is limited by construction regulations, such as fire safety regulations, which do not yet fully reflect the technical possibilities of modern timber constructions. Member States should be encouraged to reflect best available scientific knowledge in the design of regulations favourable to long-lasting wood products, including acting on energy and environmental performance of building and construction products, promoting ecolabel related with carbon sequestration and

²⁵ COM (2020) 662 final.

²⁶ https://europa.eu/new-european-bauhaus/index_en.

²⁷ Wood-based constructions products have an average market share of 2.4% in the EU (representing a total EU consumption of 26.2Mm³, or 15.7M tonnes of material), whereas non-metallic minerals constitute the bulk of materials used in the construction sector (market share of 93%). This market share varies widely between Member States: front-runners such as Finland or Sweden reach a market share above 10%, while most MS display a market share lower than 2%. Source: Trinomics (in prep) Evaluation of the climate benefits of the use of harvested wood products in the construction sector and assessment of remuneration schemes. Task 1.1 Market Analysis.

²⁸ Regulation (EU) 305/2011.

²⁹ https://europa.eu/new-european-bauhaus/index_en.

³⁰ https://ec.europa.eu/clima/policies/innovation-fund_en.

increased circularity and by targeting the crucial phases in the life of buildings, including construction, renovation and deconstruction.

Through incentives directly based on carbon sequestration, the upcoming carbon farming initiative and carbon removals certificates framework should include dedicated actions for the production and the use of long-lived wood products, in the full respect of biodiversity objectives. These incentives at the level of individual actors are complementary and supportive to the EU climate targets.

2.2. *Ensuring sustainable use of wood-based resources for bioenergy*

Wood based bioenergy is currently the main source of renewable energy, supplying 60% of EU's renewable energy use. To meet the at least 55% emission reduction target by 2030, Member States will need to significantly increase the share of renewable sources in their energy mix. Bioenergy will continue to have a notable role to play in this mix if biomass is produced sustainably and used efficiently, in line with the cascading principle and taking into account the Union's carbon sink and biodiversity objectives as well as the overall availability of wood within sustainability boundaries in 2030 perspective³¹.

Where no effective wood material utilisation is possible, bioenergy will also continue to have a role to play in improving the livelihoods of primary producers, namely foresters and farmers, and diversifying forest-based economic opportunities in rural areas. The additional revenue from bioenergy markets can ensure revenues to forest owners and managers in all stages of sustainable forest management, and with that help secure a regular income from their land.

To ensure both the socio-economic benefits and the environmental sustainability of wood-based bioenergy, the 2018 Renewable Energy Directive included enhanced **sustainability criteria for all types of biomass for energy**. These are now to be implemented by Member States and the Commission will closely monitor the correct transposition of these measures in the context of the overall implementation of the current Renewable Energy Directive, and where necessary, take enforcement action.

In addition and in light of the recent scientific evidence and the increased climate and biodiversity ambition of the EU, there is the need to further strengthen the sustainability safeguards of forest-based bioenergy. A recent Commission Report³² on the use of woody biomass for energy production in the EU shows an increasing overall use of woody biomass in the EU in the past two decades (around 20% increase since 2000), which may be additionally impacted by the increased renewable energy target. The study furthermore compares the impacts of the different management practices on both biodiversity and climate change and identifies “win-win” management practices that contribute positively to both.

³¹ [Forest-based bioeconomy and climate change mitigation: trade-offs and synergies in carbon storage and material substitution | EU Science Hub \(europa.eu\)](#).

³² Woody bioenergy in the EU is largely (49%) based on residues and wastes from logging and timber processing (e.g. branches and tops, sawdust, waste wood). The remaining 37% is supplied from so-called ‘primary biomass sources’, including low-quality stemwood and thinnings (20%), half of which is stemwood (10%) is derived from coppice while 4% per cent would be supplied by industrial quality stemwood. The remaining 14% is uncategorised in the reported statistics, meaning it is not classified as either a primary or secondary source, however in light of analysis of the woody biomass flows, the source is more likely to be primary wood. <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/use-woody-biomass-energy-production-eu>.

To mitigate the potential climate and environmental risks related to the use of wood-based bioenergy and to maximise its positive climate impact, the EU Biodiversity Strategy for 2030 said that the use of whole trees for energy production, whether from the EU or imported, should be minimised.

The proposal for the revision of the Renewable Energy Directive as part of the Fit-for-55 package set out additional concrete safeguards. It includes **strengthened sustainability criteria for bioenergy**, extending their scope of application and enlarging no-go areas for sourcing. This means prohibiting the sourcing of forest biomass from primary forests and limiting it in highly biodiverse forests to ensure no interference with nature protection purposes.

The proposal also applies greenhouse gas emission saving criteria to existing installations and extends the scope of the sustainability and greenhouse gas saving criteria to cover installations with a capacity equal or above 5 MW.

In addition, the proposal **reinforces the implementation of the cascading principle** as a main driver for changes in bioenergy policies, ensuring fair access to the biomass raw material market for the development of innovative, high value-added bio-based solutions and a sustainable circular bioeconomy.

Taking into account the waste hierarchy³³ and the cascading principle, it proposes that **Member States shall design their support schemes for the use of biomass for energy in a way that minimises undue distortive effects on the biomass raw material market and harmful impacts on biodiversity**. To specify how to apply the cascading principle for biomass, in particular on how to minimise the use of quality roundwood for energy production, the Commission will adopt a delegated act.

Moreover, according to the proposal, no support shall be granted to the production of energy from saw logs, veneer logs, stumps and roots.

An additional element is also introduced to ensure a more efficient energy-use of woody biomass, by limiting state aid support for electricity-only plants.

The Commission will continue to analyse the impact of the national support schemes on biomass supply and demand, its impacts on biodiversity and carbon sinks, and possible market distortions, and will assess the possibility for further limitations regarding support schemes to forest biomass. The overall objective of the Union should be to ensure that the share of forest-based bioenergy in the EU renewable energy mix remains within the limits of sustainability and its possible negative externalities are adequately mitigated.

2.3. *Promoting non-wood forest-based bioeconomy, including ecotourism*

EU forests provide highly valuable non-wood products, such as cork (80% of the worldwide production), resin, tannins, fodder, medicinal and aromatic plants, fruits, berries, nuts, roots, mushrooms, seeds, honey, ornamentals and wild game, which often benefit the local communities. They contribute about 20% of the marketable value of forests³⁴, and their potential

³³ As set out in Article 4 of Directive 2008/98/EC.

³⁴ Martinez de Arano I, Maltoni S, Picardo A, Mutke S et al. (2021). Non-Wood Forest Products for people, nature and the green economy. Policy priorities for Europe. A white paper based on lessons learned from

for generating additional revenues to the owning communities can be further promoted and supported in cooperation with the national and local authorities and actors.

This is in particular the case for the tourism sector related to nature that has a significant growth potential. The European tourism sector has suffered particularly hard under COVID-19 but the pandemic has also increased the demand of proximity based tourism and less crowded destinations in nature and open air. The growing trend of nature tourism and nature-based wellbeing services, provided it respects the carrying capacity of the environment and the relevant legislation, are an opportunity to accelerate the green transition of the tourism sector and provide significant income opportunities in rural areas and improve rural welfare, while further promoting biodiversity conservation and the preservation of carbon stocks.

To seize benefits from non-wood products to rural communities in forested landscapes and supporting producers' organisations, the Commission will promote the elaboration of coordinated and integrated regional, national and subnational programmes³⁵ on the sustainable production of non-wood forest products.

To boost EU forest ecotourism, the Commission will promote collaboration between the tourism sector, forest-owners and nature protection services, and standards and norms for eco-tourism activities. The tourism industry should work in close cooperation with the forest managers to develop sustainable tourism products that positively influence human health, without having negative impacts on the natural values of the intended destinations, especially in protected areas.

2.4. Developing skills and empowering people for sustainable forest-based bioeconomy

Behind the delivery of the many services that forests provide are people with a wide variety of skills. The increasing multifunctional role that forests will play in the transition to a sustainable and climate neutral future will require an increased skill-set , among others, experts in enhanced sustainable forest management practices, including adaptive re- and afforestation and restoration, architects, engineers and designers, food experts, data specialists, chemists, ecotourism facilitators. It is important to develop respective curricula, knowledge and skills.

The Commission will encourage also forestry stakeholders to join the Pact for Skills. The Pact aims to mobilise and incentivise private and public stakeholders to take concrete action. Commitments of relevant stakeholders in forestry, public and private, for up- and reskilling people for the forestry sector could take various forms, such as large-scale partnerships, regional/local partnerships, tripartite agreements or commitments of single entities. Forest and forestry stakeholders would work together under the Pact in order to adapt education and training for foresters to the challenges and needs of today's realities. Quality and effective apprenticeships, including work-based learning, are key to attract young people to the sector and to equip them with the skills needed to work in a sustainable forest bioeconomy.

The European Social Fund Plus (ESF+) can be harnessed by Member States to equip professionals from the forestry sector with the skills needed to transition towards more sustainable management practices. The Fund can also be used to enhance employment and

around the Mediterranean. Deliverable 3.3 of the European Thematic Network INCREDible, Horizon2020 grant agreement n° 774632. P. 7

³⁵ INCREDIBLE as a project example that offers Networks for Mediterranean Non-Wood Forest Products that foster innovation in science and practice exchange.

entrepreneurship through new enterprises valorising the sustainable use of forestry products and services such as ecotourism or educational programmes about forest biodiversity.

Through the Education for Climate Coalition, the Commission will further promote cooperation and connect pupils, students, teachers and stakeholders on the role of forests³⁶, including on the benefits of outdoor learning.

The Commission will:

1. As part of **the review of the construction products regulation**³⁷ establish a **standard, robust and transparent methodology to quantify the climate benefits of wood construction products and other building materials**, reflecting the most advanced dynamic life cycle analysis techniques.
2. As part of the Common Agricultural Policy and to increase forest support, provide **new means to share information on good practices on best design and implementation** of forest-relevant interventions.
3. **Promote the use of the Natura 2000 logo for non-wood forest-based products and services.**
4. Review, complement and update the Taxonomy Climate Delegate Act technical screening criteria for forestry and bioenergy where necessary to take better into account biodiversity friendly practices that are under development such as close to nature forestry. Consider **including sustainable activities related to harvesting, production and use of wood products** in the forthcoming delegated acts of the Regulation Taxonomy³⁸ on other environmental objectives.
5. Create **a new alliance between the professionals of tourism and foresters**, involving the World Tourism Organisation and the network for Europe's natural and cultural heritage.
6. **Build a toolkit** to help Member States to establish life-long programs and advice to foresters and adapt education and training to the challenges and needs of today's forest needs and realities, and develop employment opportunities.
7. Encourage forest and forestry stakeholders to **establish a skills partnership under the Pact for Skills** and make use of the European Social Fund Plus to work together to increase the number of upskilling and reskilling opportunities in forestry.

3. Protecting, restoring and enlarging EU's forests to combat climate change, reverse biodiversity loss and ensure resilient and multifunctional forest ecosystems

In light of climate change and biodiversity loss there is an urgent need for adaptive forest restoration and ecosystem-based management approaches that strengthen the resilience of EU forests. This is a precondition for forests to be able to deliver on their socio-economic and environmental functions for future generations, and enable a flourishing forest-based bio-economy for decades to come. But it is also to avoid escalating socio-economic costs from forest disasters, protect people, land and houses from floods, fires and landslides, and preserve the carbon stock and sink function and other ecosystem services provided by forests that are vital for human health and wellbeing, such as clean air, water regulation, and habitat for the variety of living species they host.

To improve forest resilience and adaptation, it is necessary to increasingly protect and restore forest biodiversity and adopt biodiversity-friendly forest management practices. This is also a great economic opportunity, provided forest owners and managers are properly supported in the

³⁶ E.g. www.forest.erasmusproject.eu.

³⁷ Regulation (EU) 305/2011.

³⁸ Regulation (EU) 852/2020.

transition. According to the World Economic Forum, the conservation, restoration and sustainable management of forests could generate EUR 190 billion in business opportunities and 16 million jobs worldwide by 2030³⁹.

In addition, we need robust approaches to risk reduction in the context of significant uncertainty related to future forests. The onset of climate change means forest change. Europe's vegetation zones have started to shift upwards and northwards, triggering the transformation of forest ecosystems in most places. This means that very few forests will either not be strongly affected by climate change, or will not require immediate management action to reduce their vulnerability to climate change.

Forest owners and managers across Europe are already strongly aware of climate change and are concerned with its impacts. This awareness needs to be increasingly translated into sufficient and tangible adaptation actions and resilience-enhancing forest management practices. For that, technical knowledge and information as well as targeted regulatory and financial incentives and support need to be developed. This Strategy aims to address these issues to support forest owners and managers in their efforts, scale up best practices and ensure an increase in the quantity and quality of EU's forest cover for decades to come.

3.1. Protecting EU's last remaining primary and old-growth forests

To leave space for nature to thrive, the EU Biodiversity Strategy for 2030 has proposed an overall target to protect at least 30% of the EU land area under effective management regime, out of which 10% of the EU land should be put under strict legal protection. Forest ecosystems will need to make a contribution to this target.

All primary and old growth forests, in particular, will have to be strictly protected. Their estimated cover is only around 3% of EU forested land and patches are generally small and fragmented. Primary and old-growth forests are not only among the richest EU forest ecosystems, but they store significant carbon stocks and also remove carbon from the atmosphere, while being of paramount importance for biodiversity and the provision of critical ecosystem services⁴⁰.

Yet, there is still an **immediate need to map the primary and old-growth forests and establish their protection regime**, including increased efforts to protect the primary forests in outermost regions and overseas territories of the Union, given their exceptionally high and unique biodiversity value. To maintain the undisturbed character of strictly protected forests it is essential to leave the dynamic of the forest cycle in these forests as much as possible to natural processes, limiting extractive human activities, while finding synergies with sustainable ecotourism and recreational opportunities.

The Commission is working in cooperation with Member States and stakeholders to agree, by the end of 2021, on a **common definition for primary and old-growth forests** and the strict protection regime. **Member States should urgently engage in completing the mapping and monitoring of these forests, and ensuring no deterioration until they start to apply the protection regime.**

³⁹ <https://www.weforum.org/press/2020/08/us-businesses-governments-and-non-profits-join-global-push-for-1-trillion-trees/>.

⁴⁰ Barredo Cano, J.I., Brailescu, C., Teller, A., Sabatini, F.M., Mauri, A. and Janouskova, K., Mapping and assessment of primary and old-growth forests in Europe, EUR 30661 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-34229-8, doi:10.2760/13239, JRC124671.

3.2. *Ensuring forest restoration and reinforced sustainable forest management for climate adaptation and forest resilience*

Forest management practices that preserve and restore biodiversity lead to more resilient forests that can deliver on their socio-economic and environmental functions. Therefore all forests should be increasingly managed so that they are sufficiently biodiverse, taking into account the differences in natural conditions, biogeographic regions and forest typology. There are significant opportunities for win-win measures, which simultaneously improve forest productivity, timber production, biodiversity, carbon sink function, healthy soil properties and climate resilience. A greater diversity of forest ecosystems and species, and the use of well-adapted genetic resources and ecosystem-based approaches to forest management can enhance long- term adaptability and forests' capacity to recover and self-organise.

In addition, certain management practices that support biodiversity and resilience, are essential in this context, such as the creation or maintenance at stand and landscape level of genetically and functionally diverse, mixed- species forests, especially with more broadleaves and deciduous trees and with species with different biotic and abiotic sensitivities and recovery mechanisms following disturbances, instead of monocultural plantations. Also, management practices like uneven-aged and continuous-cover forestry, sufficient quantities of deadwood, regulation of wildlife densities and the establishment of protected habitat patches or set aside areas in production forests help ensure long-term environmental and socio-economic viability of forests. In addition, forest related risk management practices, such as integrated landscape fire management systems will increase forest resilience against wildfires, pests, diseases and create other positive spill over effects. Such practices provide an 'insurance policy' and safeguard that forests can continue to provide their full and multifunctional set of goods and services in a variable and uncertain future.

Conversely, some other practices should be approached with caution⁴¹, notably these which affect above ground biodiversity, and cause the loss of carbon in the roots and part of the carbon in the soil. These silvicultural practices include clear-cutting, for which environmental and ecosystem concerns, including the needs of certain species, should be increasingly taken into account. These practices should be used only in duly justified cases. What should also be avoided is removing stumps and roots, which should be left in the forest. Carrying out logging during bird-nesting period must comply with the Birds Directive⁴².

Taking care of forests soil is particularly important, as there is a strong interdependence between trees and the soil on which they grow. For trees to thrive, tree roots need to obtain all essential elements and nutrients from the soil. Therefore, the soil properties and soil ecosystem services must be protected as the very foundation of healthy and productive forests. As an example, undue use of unsuitable machinery that cause negative environmental impacts such as soil compaction should be avoided.

These above-mentioned more sustainable principles and practices are already embraced by many European forest owners and managers in the context of sustainable forest management and, when moving forward, should increasingly form its backbone.

⁴¹ These should be used only in duly justified cases, for example when proven necessary for environmental or ecosystem health reasons.

⁴² Directive 2009/147 on the conservation of wild birds

Examples of good practices in forest management to preserve and restore biodiversity

*An international network of foresters, covering over a hundred reference forests, has been established to share experiences, practices, knowledge and training, promoting a transition towards a more resilient silviculture that is based on the natural processes of forest ecosystem: the mixing of species by tree or by group of trees, natural regeneration or diversified planting on a small scale, continuous forest cover that avoids as much as possible clear-cutting and its disadvantages, progressive irregularisation of the age structure of the stands, management on the scale of the tree or by group of trees, and the improvement of the capacity to support biodiversity.⁴³

*INTEGRATE network is an alliance of representatives of different European countries that promotes the integration of nature conservation into sustainable forest management at the policy, practice and research level.⁴⁴

*In Germany the process of *Waldumbau* is used for restructuring forests for more biodiversity and climate resilience. *Waldumbau* may be undertaken in response to disturbance events such as windstorms or insects when replanting, or a pre-emptive action to avoid such losses. The goal is the construction of more natural structures and life cycles with multiple species and tree ages per stand. This way, *Waldumbau* also serves to preserve the forests and thereby their function as carbon sinks, and provides a great economic opportunity if forest owners and managers are properly supported in the transition⁴⁵.

A common understanding of sustainable forest management has been agreed upon in the Pan-European Ministerial Conference on the Protection of Forests ('Forest Europe'), comprising voluntary principles, guidelines and indicators, which are used by the signatories to monitor the progress of their forests. Sustainable forest management means the *stewardship and use of forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national and global levels, and that does not cause damage to other ecosystems.*

In order to better respond to new challenges and needs, and in light of the increasing role of forests in the delivery of the EU's commonly agreed climate and biodiversity objectives, the sustainable forest management framework will have to be enhanced, notably as regards criteria relating to ecosystem health, biodiversity and climate change so that it can become a more detailed screening tool to determine and compare different management approaches, their impact and the overall state of EU forests. The sustainable forest management already covers several relevant indicators, such as deadwood and species diversity, but it does not yet define thresholds or ranges as benchmarks for the desirable condition.

Therefore, building on the Forest Europe sustainable forest management criteria, the Commission, together with the Member States and in close cooperation with different forest stakeholders, will identify additional indicators as well as thresholds or ranges for sustainable forest management concerning forest ecosystem conditions, such as health, biodiversity and climate objectives. In thorough consultation with the Member States, the Commission will assess how these could best be used, in respect of the subsidiarity principle and starting on a voluntary basis, to allow for a better comparative understanding of the overall sustainability of forests within the EU and demonstrate the contribution of sustainable forest management to EU objectives, in particular those related to climate, biodiversity and circular economy.

⁴³ <https://www.prosilva.org/close-to-nature-forestry/exemplary-forests/-www.forbiodiv.org> - <https://www.prosilva.org/information-news/news/exemplary-forests-network/> and <https://askafor.eu/>.

⁴⁴ <https://integratenetwork.org/>.

⁴⁵ [BMEL - Publikationen - Der Wald in Deutschland - ausgewählte Ergebnisse der dritten Bundeswaldinventur.](#)

The indicators, thresholds or ranges should build on existing work and take into account forest variability, biogeographic regions and forest typology, in addition to providing the necessary flexibility. Guidelines on closer-to-nature forestry⁴⁶ are being developed by the Commission and will feed into the work on indicators and new thresholds for sustainable forest management that will be undertaken in close partnership and cooperation with Member States through the updated EU forest governance framework.

Based on these guidelines developed with Member States, the Commission will, subject to an impact assessment and stakeholder engagement, also develop a **“closer-to-nature” voluntary certification scheme**, so that the most biodiversity friendly management practices could benefit from an EU quality label.

As part of the implementation of the EU Biodiversity Strategy for 2030, the Commission will propose a legally binding instrument for ecosystem restoration, covering in particular those ecosystems with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters. This will include targets for restoring forest ecosystems namely in so far as these are identified under EU nature legislation⁴⁷.

In addition to adaptive restoration and ecosystem-based management practices of forests, **climate adaptation also requires investing in disaster prevention, preparedness, response and post-disaster forest recovery**. Before contributing to the required equipment and operations, everything should be done to prevent climate related damages and increase forest resilience. Also, spending on disaster response and post-disaster recovery should include, as a minimum, ‘restore and reforest better’ conditions in line with the above-described management practices that increase forest resilience.

Adapting forests to climate change and restoring forests following climate damages will also require large quantities of appropriate forest reproductive material. This implies efforts to secure and sustainably use – based on ecological principles – the genetic resources on which a more climate-proof forestry depends; to increase the production and availability of such material; to provide better information on its suitability for future climatic conditions; to support research into the principles and application methods of assisted forest species migration; and to enhance its collaborative production and transfer across national borders. The Commission will supplement the **revision of the legislation on forest reproductive material** with measures to promote the production of forest reproductive material suitable for future climatic conditions. Research and innovation, and the testing and selecting of species and suitable provenances for future conditions should also be enhanced.

Last but not least, the Commission, working with the Member States, will monitor the situation of tree health in the EU, including the impact of invasive alien species, diseases and pests such as bark beetles, and encourage the necessary preventive actions for early detection and eradication. These include pest management strategies to identify areas most at risk, exchange of best practices, support and cooperation on phytosanitary controls, as well as the development of innovative and sustainable plant protection tools in respect of ecological principles favourable to biodiversity.

⁴⁶ Closer-to-nature forestry is an example of such practices. It seeks multifunctional forests by combining biodiversity (even in planted forests), carbon stock preservation and timber-related revenues. Despite not having a universally accepted definition yet, closer-to-nature forestry is a concept discussed by private and public organisations, both in within the EU and globally.

⁴⁷ Annex I of Habitats Directive.

3.3. *Re- and afforestation of biodiverse forests*

Spontaneous forest regrowth through natural succession is the main force driving the increase of forested areas in the EU, mostly associated with abandonment of agriculture and rural areas. But additionally there is potential for extending forest and tree coverage in the EU through active and sustainable re- and afforestation and tree planting.

This concerns mainly urban and peri-urban areas (including e.g. urban parks, trees on public and private property, greening buildings and infrastructure, and urban gardens) and agricultural area (including e.g. in abandoned areas as well as through agroforestry and silvopastures, landscape features and the establishment of ecological corridors). It is important to capitalise on this potential, as enhanced afforestation is also among the most effective climate change and disaster risk mitigation strategies in the forest sector, and can create substantial job opportunities, e.g. in relation to collecting and cultivating of seeds, planting seedlings, and ensuring their development, as well as providing socio-economic benefits to local communities. Also, exposure to green and forested areas can greatly benefit people's physical and mental health.

The EU Biodiversity Strategy for 2030 sets out a **pledge to plant at least 3 billion additional trees by 2030** in full respect of ecological principles. This initiative will act against the ongoing trend of a declining net increase of the EU forest area. Over time, it will also contribute to increasing the EU forest cover and, with that, the EU land carbon sink and stock. It will also help raise societal awareness and commitment, contributing to reaching the objective of becoming the first climate neutral continent by 2050, to biodiversity restoration and to the circular economy. This Strategy includes a roadmap for the implementation of the pledge based on the overall principle of **planting and growing the right tree in the right place and for the right purpose**.

Roadmap for planting at least 3 billion additional trees by 2030⁴⁸

The roadmap sets out clear criteria for tree planting, counting and monitoring. It is supplemented by a website, a timeline for how additional elements will be developed, including a tree-counter, the ongoing development of the guidelines for biodiversity-friendly afforestation and reforestation and criteria for closer-to-nature forestry, and platforms for exchange of best practices.

The roadmap includes a strong monitoring component, which will be essential to track progress for meeting the target. This will build on the expertise of the Commission and the European Environment Agency. Based on monitoring data, the Commission and the European Environment Agency will provide assessments of trends and the state of implementation. Synergies with technological solutions already in use, i.e. for air quality monitoring, will be sought in order to compile information on planting pledges at national, regional and local level.

3.4. *Financial incentives for forest owners and managers for improving the quantity and quality of EU forests*

Strengthened forest protection and restoration and more biodiversity-friendly sustainable forest management are the right thing to do and will help to ensure the resilience and productive capacity of forests for decades to come. However, it has to be acknowledged that this will not happen without the motivation, engagement and action of European forest owners and managers

⁴⁸ As set out in Annex to this strategy and the accompanying Staff Working Document on the 3 Billion Tree Planting Pledge for 2030 (SWD(2021)651).

– the principal caretakers of forests. The right thing to do must also be economically viable and best practices show that this can be the case.

In publicly owned forests it is only reasonable for Member States to strengthen forest protection and restoration efforts to achieve the commonly agreed increased EU climate and biodiversity ambition and to ensure the transition to a climate-neutral economy. The Strategy acts against the trend of decreasing net removals from land in the EU, namely from forests, over the past 10 years. Reversing this trend is a precondition for achieving the EU’s agreed increased climate and biodiversity ambition and ensuring forests’ resilience to climate change so that forests can deliver on their multiple functions. This will require a series of initiatives highlighted in this strategy, such as forest protection and restoration, enhancement of sustainable forest management practices that retain carbon in the forest ecosystem including the soil, prioritising the cascading use of wood, and initiatives for forest regeneration and sustainable re- and afforestation.

Yet, private forest owners and managers, especially of small holdings, often depend on forests directly for their livelihoods and today their main income comes from the supply of wood. The other benefits, especially the provision of ecosystem services, are rarely or never rewarded. This has to change. **Forest owners and managers need drivers and financial incentives to be able to provide, in addition to wood and non-wood materials and products, also ecosystem services through forest protection and restoration and to increase the resilience of their forests through the adoption of most climate and biodiversity friendly forest management practices.** This is particularly important in parts of Europe that have been hit by climate change earlier and harder than anticipated and where rural areas have suffered from the loss of income, livelihoods and even lives due to forest disasters.

Good examples on public and private payment schemes for ecosystem services exist (e.g. on protection of drinking water, carbon sequestration, biodiversity conservation). Options and enhancing technical skills and conditions for the further development of public and private markets for the provision of forest ecosystem services are being explored for deployment with EU research support⁴⁹. This will be complemented by a LIFE preparatory action with stakeholders on how payment for ecosystem services can be incorporated in EU funding programmes, and include lessons learned from existing national payment schemes for ecosystem services.

Examples of public and private payment schemes for ecosystem services

The **Finnish Metso Programme** pays private forest owners to set aside their land for biodiversity. The amounts provided depend on the value of the land and for how long the forest will be set aside.

The **Croatian tax for all** requires natural and legal persons conducting economic activities and an income over 400.000 euro to pay 0.0265% of their total revenue for benefiting from forest ecosystem services and through a special national fund this is distributed to forest owners according to the forest area in accordance to the forest management plans.

The **French Label Bas Carbon** scheme allows private and public actions to voluntarily offset their greenhouse gas emissions by financially supporting environmental services (low-carbon actions) in forest management in France.

In 2019 **Portugal** launched a pilot program to pay forest ecosystem services in two natural parks covering the renaturalisation of eucalyptus plantations, planting autochthonous species and the development of non-wood products.

⁴⁹ Horizon projects: InnoForest, SINCERE.

In Germany, **Federal water legislation** entitles forest owners to receive compensation payments for management restrictions in groundwater protection areas.

As part of **the green heart of cork initiative developed by WWF Mediterranean**, a private drinks company paid forest land owners to protect a water aquifer that was used for their production process.

As to EU policies, the Common Agricultural Policy (CAP), through the national Rural Development Programs, already provides financial support for forests and forest management, namely for adaptation and resilience to climate-related risks. In 2014-2020, the CAP forestry measures committed EUR 6,7 billion in support of EU policy targets, mostly for afforestation (27%), prevention of forests fires and disasters (24%) and investments on resilience, ecological and social functions (19%). Yet, the uptake of forestry measures has been low, and decreased substantially along the programming period. This is for example due to the lack of necessary knowledge to manage the administrative procedures to request access to the funds, coupled with insufficient attractiveness of the premium and the lack of capacity building support through advisory services, as well as limited guidance on how to implement forest based adaptation activities and measures to climate change in order to prevent and reduce risks (e.g. wildfires, soil erosion, diseases, floods).

The new CAP (for 2023-2027) offers increased flexibility to design forest-related interventions according to national needs and specificities, reducing red tape while linking and ensuring a synergetic approach between the European Green Deal, the national forest policies, and the EU environment and climate acquis. The Commission will strive to **increase the uptake of rural development funds available for the purposes of this strategy**.

The recommendations to Member States on the CAP Strategic Plans, for the 2023-2027 period, have encouraged due consideration of forests. Member States received specific recommendations on forests and the forestry sector. Recommendations are mainly aimed at fostering sustainable forest management and sustainable re- and afforestation, enhancing multi-functionality and the role of forests as carbon sink, protecting forests and restoring forest ecosystems to reach good condition of habitats and species, building forest resilience to climate change, and enhancing the socio-economic development of rural areas.

Further action needs to be undertaken by Member States for better involving forest stakeholders in the development of the CAP Strategic Plans at Member States level. The Commission will provide new means to share information on good practices to better design and implement forest-relevant interventions, fostering the exchange between experts in Member States, providing demonstration tools for consistent use of funding, and supporting local and regional networking, including *in situ* demonstration initiatives. In the assessment of CAP Strategic Plans the Commission will notably pay attention to forest related measures, which have strong synergies with the EU's climate and biodiversity objectives.

In light of the increased climate and biodiversity ambition of the EU, the **Member States are specifically encouraged, as relevant to their national circumstances, to set up a payment scheme for ecosystem services for forest owners and managers, in order to cover for costs and income foregone** similarly to exemplary national schemes such as the Finnish METSO programme. **Member States are also encouraged to accelerate the roll out of carbon farming practices, for instance via eco-schemes on agroforestry or rural development interventions** to cover biodiversity-friendly re- and afforestation investments, agroforestry and other non-productive investments for environment- and climate-related objectives. To support

Member States, the Commission will provide **advice and technical guidance on the development of payment scheme for ecosystem services.**

The Commission will also adopt **the carbon farming initiative**, announced in the Farm to Fork Strategy, which will aim to further promote a new green business model that rewards climate- and environment-friendly practices by land managers, including forest managers and owners, based on the climate benefits they provide. The remuneration of mitigation efforts through incentive payments or the generation of tradable carbon certificates will create a new business model that intends to provide a new source of income to farmers, foresters and land managers who implement sustainable activities leading to carbon removals and storage.

Carbon farming schemes can be promoted via public policies and private initiatives. In addition, public support can also take the form of pure national financing under State aid guidelines, in particular under the EU agricultural and forestry guidelines, currently under review, that cover a wide range of forestry measures, including for example investment aid to improve the resilience and environmental value of forest ecosystems or aid for forest-environment and climate services and forest conservation. The Commission is exploring how to facilitate the use of national funds for forestry measures and target them better for ecosystem services in the forthcoming revision of the State aid guidelines.

Additionally, private initiatives can finance carbon farming schemes through the generation of carbon certificates that can be traded in the markets. Beneficiaries would receive payments linked to the results delivered, ensuring a more targeted use of the relevant funds towards the intended climate or environmental objective, such as the provision of ecosystem services. Carbon farming can hence constitute a potential channel to achieve and implement targets underlying the present Strategy.

The Commission is furthermore developing a regulatory framework for certifying carbon removals, as announced in the Circular Economy Action Plan.

In the context of the **Long-term vision for rural areas**, a network of forest-dominant rural areas and municipalities will be promoted to give voice to forest rural areas, ensuring their representation in key initiatives (rural observatory, ENRD portal⁵⁰), and facilitating specific assessments of reality and needs of forest areas across the EU.

The Commission will :

1. Propose a **legally binding instrument for ecosystem restoration**, including forest ecosystems, by the end of 2021.
2. Develop **guidelines on the definition of primary and old-growth forests**, including their **definition, mapping, monitoring and strict protection**, by the end of 2021.
3. **Together with the Member States and in close cooperation with different forest stakeholders, identify the additional indicators as well as thresholds or ranges for sustainable forest management**, and assess how these could best be used, starting on a voluntary basis, by the Q1 2023.
4. Develop **guidelines on biodiversity friendly afforestation and reforestation**, by Q1 2022.
5. Develop a definition and adopt guidelines for **closer-to-nature-forestry practices**, by Q2 2022, **as well as voluntary closer-to-nature forest management certification scheme**, by Q1 2023.
6. Provide **guidance and promote knowledge exchanges on good practices on climate adaptation and resilience**, using inter alia the Climate-ADAPT platform.
7. Supplement **the revision of the legislation on forest reproductive material** with measures to

⁵⁰ <https://enrd.ec.europa.eu/>.

promote the production and marketing of forest reproductive material suitable for future climatic conditions, by the end of 2022.

8. Promote **forest-related interventions in the future CAP (2023-2027)** in relation to the European Green Deal objectives, **in particular the set-up of ecosystem services payment schemes and roll-out of carbon farming practices**, and in other EU financial instruments (e.g. Cohesion Policy, LIFE, Horizon Europe, EU crossborder cooperation programs (Interreg))
9. **Provide advice and technical guidance on the development of ecosystem service payment scheme**, by November 2021.
10. Promote forest-related remuneration schemes in an action plan for both **carbon farming and carbon removal certification**, to be adopted by the end of 2021.
11. Carry out a **study on behavioral science regarding the uptake of public funds by foresters** to better identify further policy improvement routes.
12. **Identify and address possible hurdles posed by current EU legislation and the State Aid Guidelines** to grant adequate public support to services beneficial for the public interest.

4. Strategic forest monitoring, reporting and data collection

Today the information concerning the status of forests in the EU, their social and economic value, as well as the pressures they face and ecosystem services they provide, is patchy. Since 2007, when the Forest Focus Regulation expired⁵¹, no comprehensive reporting requirements exist. In addition, there are challenges related to the use of remote sensing data together with ground-based data (i.e. lack of interoperability, common definitions, ambiguity in data interpretation, lack of long and comparable very high resolution time-series, limitations of the current standard forest products from Copernicus). Also, there is insufficient planning for the forests, which would address in a coordinated manner and provide a comprehensive picture of the multifunctionality of forests in the EU, especially regarding climate mitigation and adaptation, ecological condition of forests, forest damage prevention and control, and forest biomass demand and supply for different socio-economic purposes. Combined with the need for more detailed sustainable forest management indicators and thresholds on certain climate and biodiversity aspects, this leads to a situation where, on the one hand, Member States have agreed at EU level to rely to a great extent on forests and forest-based bioeconomy in the EU's transition to a climate-neutral economy.

On the other hand, there are several scattered monitoring and reporting mechanisms, but no strategic framework, which would bring these together and make it possible to comprehensively and jointly with Member States demonstrate that the EU is on the right track and that the forests can actually deliver on their multiple demands and functions. **Strategic forest planning in all EU Member States at national and, where applicable, regional level**, that is based on reliable monitoring and data, transparent governance and coordinated exchange at the EU level, is needed for the delivery on the commonly agreed EU objectives can be ensured, especially regarding the transition to a climate neutral economy and the achievement of the biodiversity and circular economy ambition, including on the achievement of the removal targets as set out in the proposal for a revised Regulation on Land Use, Land Use Change and Forestry.

To this end and subject to an impact assessment, the **Commission will put forward a legislative proposal for a Forest Observation, Reporting and Data Collection framework**. This will establish an **EU-wide integrated forest monitoring framework**, using remote sensing

⁵¹ The Forest Focus Regulation (2152/2003) has been in force during 2003-2007, and it contributed to the “establishment of a scheme on monitoring of forests and environmental interactions to protect the Community’s forests”. The scheme was built on the achievements of two previous Council regulations for monitoring the impacts of atmospheric pollution (Council Regulation (EEC)3528/86) and of fires (Council Regulation (EEC)2158/92) on forest ecosystems. A report on the implementation of the Forest Focus scheme is available here: <https://ec.europa.eu/environment/archives/forests/ffocus.htm>.

technologies and geospatial data integrated with ground-based monitoring, which will improve the accuracy of monitoring. Subject to an impact assessment and consultation, and in full respect of the subsidiarity principle, this would also include **Strategic Plans for Forests** to be developed by competent national or, where applicable, regional authorities. This proposal will establish a framework towards a more effective coordination of actions in full respect of the competences of Member States in this matter.

Regarding the monitoring, the focus should be on regular and more frequent cost-efficient reporting and update of data on priority EU policy-relevant topics, such as effects of climate change, biodiversity, health, damages, invasive alien species, forest management, and the biomass use for different socio-economic purposes. Monitoring has to be done with high spatial and temporal granularity. Timeliness is particularly important also due to the rapid unfolding of forest natural disturbances. The framework will benefit from the EU Space Programme components and should leverage Galileo and Copernicus services to improve these processes.⁵²

A list of parameters relevant for harmonised EU monitoring would be defined, and data would be collected and reported, building on existing indicators and monitoring schemes at national and EU level (e.g. the European Forest Fire Information System⁵³), and respecting the Once-Only Principle as set out in the Single Digital Gateway regulation. Options for new monitoring parameters and indicators would be assessed and considered through consultations with Member States, expert support, research and other means, and would be integrated in the monitoring system when available. The new monitoring framework could also benefit from the EU Destination Earth (DestinE)⁵⁴ initiative in the form of a dedicated digital twin, which can be considered a new step-change for Earth system modelling and data assimilation across different but interconnected thematic areas.⁵⁵

The Forest Information System for Europe (FISE) will be enhanced to become the corner stone for harmonised forest data in Europe. The integrated forest monitoring system will therefore be framed under and its results made available through this information system. The Commission's EU Observatory on deforestation, forest degradation, changes in the world's forest cover, and associated drivers⁵⁶ will develop Earth-Observation-based monitoring tools for forests that may be operationalized by Copernicus and taken up by FISE as part of the integrated forest monitoring system.

A dashboard on key indicators will be produced and updated yearly for indicators, such as those from remote-sensing data, which are readily available. Taking into account the risks and rapidly changing situation in EU forests, forest disturbances and updated risk assessments will also be part of the yearly reports. A dashboard will be produced every 6 years for those indicators where more time is needed to consolidate them. This will also contribute to the regular monitoring processes such as the UN Sustainable Development Goals, the 8th Environment Action

⁵² Copernicus Sentinel data or products and artificial intelligence are already used at European level and Member State level, e.g. to provide continuous forest inventories in Portugal, identify land use (changes) as well as check upon the health status of trees in support of forest managers and the pulp and paper industry. In Sweden, information coming from satellite imagery has allowed the detection of illegal cutting, which are now rare, and of poor management practices, since 2000. In Romania, a 'smart forest' project is being implemented in a primary forest to alert forest guards on potential illegal logging. Such examples are no longer the exception, and they drive forest management into the digital era.

⁵³ <https://effis.jrc.ec.europa.eu>.

⁵⁴ <https://digital-strategy.ec.europa.eu/en/policies/destination-earth>

⁵⁵ For what concerns Commission-led IT, IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.

⁵⁶ [Stepping up EU Action to Protect and Restore the World's Forest.](#)

Programme and the European Semester. The future European forest science partnership will be involved in the preparation of these reports. Lay summaries will be made available for all FISE reports mentioned above. It is crucial to ensure that the science-based knowledge and information will be made accessible to all. Forest owners and managers, civil society or local action groups are invited to make use of these reports and organise public information sessions in their countries or communities, with a view to raise more awareness on European forests.

Citizens and communities will also be involved in monitoring the trees planted as a contribution to the pledge of at least 3 billion additional trees by 2030, through the website MapMyTree. Practical advice on tree planting and care will be made available on a dedicated platform.

In full respect of the principle of subsidiarity, the Strategic Plans would be prepared by Member States national or, as applicable, regional authorities. These would lay out the **strategic vision of Member States for their forests and the forest-based sector** for the next 10, 30 and 50 years. The plans would not be subject to an approval by the Commission but would contain common elements and a general structure to be developed in cooperation with the Member States and subject to an impact assessment and stakeholder engagement, in order to allow for comparability and provide a comprehensive picture of the state, the evolution and the future developments of forests in the EU, as envisioned by Member States.

In addition and in line with the EU 2030 Biodiversity Strategy, the share of forest areas covered by **forest management plans** (FMPs) should cover all managed public forests and an increased number of private forests.⁵⁷ This would help forest owners and managers to effectively translate the policy objectives and strategic priorities set at EU, national and regional level into reality on the ground. FMPs should include forest-related risk assessment and management, as well as better integrate biodiversity-related data. In preparation of the new legislative instrument on EU forest monitoring, the Commission will, building on the experience of the previous EU forest strategy⁵⁸, perform a comparative assessment of requirements and criteria included in FMPs and consider setting further criteria in close cooperation with Member States to ensure that the FMPs meet the climate, biodiversity, bio-economy and social and rural development objectives of this strategy. Furthermore, the assessment will consider how to support and advise foresters in setting up those plans.

The new legal framework will be supported by a comprehensive governance system under the updated more inclusive and coherent EU forest governance framework as per section 6. As part of the latter, a dedicated group involving key experts and networks on forest monitoring and planning will be established to assist with identifying and defining the common list of methods and indicators to monitor, defining work programmes, and identifying research needs and progress.

The Commission will:

1. Put forward a proposal for a **new legislative proposal on EU Forest Observation, Reporting and Data Collection** to ensure a coordinated EU forest monitoring, data collection and reporting system. As part of this, Member States competent authorities would prepare **Strategic Plans for Forests** for forests and the forest based sector, in full respect of the subsidiarity principle and the Treaty, by Q1 2023.

⁵⁷ Forest management plans and requirements to such plans already exist in several Member States that the Commissions assessment will build on. See: Summary of forest management plans requirements: [fmp_table.pdf \(europa.eu\)](#).

⁵⁸ COM (2013)659 final

2. **As part of the Forest Information System for Europe (FISE), on the basis of improved Copernicus products, other remote-sensing data and ground-based monitoring, strengthen the existing monitoring of climate effects and other natural or human-induced disturbances on forests.**
3. **Prepare and publish regular reports and lay summaries on the forests in the EU** with the support of a broader European forest science partnership.
4. Through its Joint Research Centre⁵⁹, **develop a European forest science partnership**, with a view to support the development of new indicators based on remote sensing and the latest research results.

5. A strong research and innovation agenda to improve our knowledge on forests

Research and innovation are key drivers in achieving the ambitious goals of the Strategy. The Commission, through Horizon Europe, will further promote a science-based contribution of EU forests to the European Green Deal ambitions of climate neutrality and resilience, biodiversity and sustainable growth. Forest related research and innovation activities will be supported through the thematic cluster on “*Food, Bioeconomy, Natural Resources, Agriculture and Environment*“. This cluster provides opportunities to enhance and create synergies between environmental, social and economic goals of forests and to set human economic activities on a path towards sustainability.

Research and innovation will **increase the effectiveness of enhanced sustainable forest management under changing climate conditions**, amongst others, by reinforcing the knowledge on climate change impacts, contributing to a greater diversity of forests and genetic resources, and providing evidence-based and practically feasible guidance for climate change mitigation and adaptation in line with biodiversity objectives. A holistic approach on new and emerging pests and diseases will aim to reduce biotic disturbances and risks. Sound and site-adapted forest and soils restoration will be supported including through the research and innovation mission on soil health and food. An improved understanding of primary and old-growth forests and of their biodiversity and climate functions will be sought.

The multiple **benefits from forest ecosystem services** and their interdependencies will be further addressed in an interdisciplinary and integrative manner aiming to add more value on sustainable and multifunctional forests and to maximise their benefits for society. Research and innovation on agroforestry systems and other trees outside the forests will be reinforced.

Targeted investments in a better use of data and the development of infrastructures, technologies and governance models will **accelerate the application of digital innovations** in forestry, rural areas and across value chains.

In order to **strengthen EU cooperation**, a research and innovation partnership on forestry will be proposed to overcome the fragmentation of public research efforts in the EU and to reinforce work on research priorities that call for a stronger coordination. The contribution of up to EUR 1 billion of Horizon Europe will be combined with the complementary private investment in the future Circular Bio-based Europe Partnership to boost such innovative and resource efficient bio-based materials and products that have strong potential to substitute their fossil based

⁵⁹ The Commission will, through its Joint Research Centre, conduct scientific research and manage scientific knowledge to support the implementation of the Forest Strategy, including the development of methods for European forest monitoring using remote sensing, and the assessment of forest condition and pressures combining remote sensing and statistical data.

counterparts. Forest-based projects should help diversify the income of forest owners and managers, and increase the sustainability and circularity of the forest-based economy.

The Commission will work with Member States to strengthen the role of forestry in the European Innovation Partnership-AGRI. The aim will be to **accelerate the uptake of forest related innovations, to promote knowledge exchange, cooperation, education, training** and advice in support of enhanced sustainable forest management practices and unlock the socio-economic and environmental potential of forests in rural areas.

The Commission will:

1. Develop a “**Planning our Future Forests**” research and innovation agenda together with Member States and stakeholders by jointly identifying research gaps and future priorities for forestry and the forest-based sector.
2. Support the evidence-based **design and implementation of forest restoration strategies** with engagement of the society and in different ecological and socio-economic settings, including through the planned research and innovation mission on soil health for forest soils.
3. **Enhance EU cooperation** by proposing a Research and Innovation partnership on forestry, including flagships for testing and demonstrating solutions on selected key strategic domains.
4. Through the Horizon Europe Civil Security for Society programme, **implement complementary actions in support of Disaster Risk Reduction policies** (including forest fires), to enhance capacities in risk and resilience management and governance.
5. Develop a **Citizens’ science Programme for forest biodiversity**, notably engaging citizens and civil society in monitoring forest biodiversity.

6. Inclusive and coherent EU forest governance framework

The wider contribution of forests to the European Green Deal objectives, as presented in the Strategy, including for climate, biodiversity and sustainable bioeconomy, necessitates a more inclusive and better coordinated EU forest governance structure, reflecting all the objectives of the new EU Forest Strategy and their interlinkages. Reinforced coordination of different policies should be ensured and a multidisciplinary exchange should be facilitated, with the involvement a wide variety of experts and stakeholders. Given the increasing interest of the European public in the future of EU’s forests, transparency of the governance should also be guaranteed so that everyone can follow how the Commission and the Member States are assisted in delivering on the objectives of the new EU Forest Strategy.

In this spirit, the Commission will propose an EU forest governance system that promotes policy coherence and synergies between the different functions a sustainable and climate neutral European economy requires forests to deliver, and allow for an inclusive space for Member States, forest owners and managers, industry, academia and civil society to discuss forest policy matters, while avoiding overlapping structures.

Regarding the dialogue with the Member States, building on the extensive experience of and cooperation within the Standing Forestry Committee and the Working Group on Forest and Nature, the Commission will propose an updated governance that brings these two groups together into a single expert group with a mandate reflecting all the environmental, social and economic objectives of the new EU Forest Strategy and membership ensuring that multiple Member State representatives from different Ministries are members of this group. To make this happen and avoid the creation of an additional structure, the Commission will work with Member States to revise the Standing Forestry Committee rules of procedure, or identify other measures as necessary. Also better synergies with the Expert Group on Forest-based Industries and Sector-related Issues will be established.

Regarding the engagement with civil society, forest owners and managers, industry and academia, the Commission will take a similar approach and build on the experience of the existing Civil Dialogue Group on Forestry and Cork and the Working Group on Forest and Nature, creating one group with a revised mission statement, broader membership and focus on the implementation of the new EU Forest Strategy.

The Commission will ensure regular joint meetings between the two groups, at least twice a year, and commit to full transparency of the discussions. The Commission encourages also Member States to establish broad multi-stakeholder dialogue platforms to discuss and inform European, national and local forest policies.

Such reinforced governance structure will allow to strengthen the dialogue, break silos and fully reflect, in the spirit of the European Green Deal and the new EU Forest Strategy, the synergies between rural development, sustainable forest bioeconomy and the EU's increased climate and biodiversity ambition.

The Commission will also promote the creation of a “Forest Advisory Services” in the Member States, equivalent to the Farm Advisory services existing under the CAP.

7. Stepping up implementation and enforcement of existing EU acquis

The implementation and enforcement of the EU acquis of relevance for forests and forest management issues needs to be stepped up. The Habitats⁶⁰ and Birds⁶¹ Directives provide for the conservation of a good range of forest habitats and of forests-related animal and plant species. The Environmental Liability Directive⁶² requires the prevention and remediation of environmental damage involving forest habitats⁶³. The Environmental Crime Directive⁶⁴ criminalises certain conduct that involves damage to protected forests⁶⁵. As part of the European Green Deal, the Commission intends to propose a revision to strengthen the latter. The Strategic Impact Assessment Directive⁶⁶ and Environmental Impact Assessment Directive⁶⁷ are relevant to certain forestry plans, programmes and projects. The Directive on public access to environmental information⁶⁸ provides for making available environmental information, including forest management plans.

The EU Timber Regulation⁶⁹ bans the entrance of illegal timber in the EU and lays down obligations of operators who place timber and timber products on the EU market. The

⁶⁰ Council Directive 92/43/EEC of 21 May 1992.

⁶¹ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

⁶² Directive 2004/34/EC on environmental liability with regard to the prevention and remedying of environmental damage.

⁶³ See Commission Guidelines on a common understanding of environmental damage under the Environmental Liability Directive (C(2021)1860 final), in particular paragraphs 15, 18 and 90.

⁶⁴ Directive 2008/99/EC on the protection of the environment through criminal law.

⁶⁵ See for example Article 3(h) of Directive 2008/99/EC.

⁶⁶ Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.

⁶⁷ Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

⁶⁸ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information⁶⁸ and repealing Council Directive 90/313/EEC.

⁶⁹ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market.

Commission is finalising a Fitness check of this regulation and of the Forest Law Enforcement Governance and Trade Regulation⁷⁰, and will present its findings and a proposal for improved rules against deforestation and forest degradation later in 2021.

Illegal logging is particularly worrying when it concerns primary and old growth forests or forest habitats with very small areas left due to the irreversibility of the damage. A poor implementation of the relevant acquis may also cause forest degradation or a lack of improvement in forest conservation status. The Commission will strive to improve compliance assurance at national level, intensifying its dialogues with individual Member States' competent authorities, and working closely with Member States and European networks of environmental agencies, inspectors, police, prosecutors and judges, drawing on guidance already prepared in collaboration with and endorsed by these⁷¹, as well as step up enforcement including by making use of infringement procedures where appropriate. The Commission has opened infringements in relation to forestry operations in breach of the Habitats and Birds Directives, the Strategic Environmental Assessment Directive, the EU Timber Regulation, and the Directive on public access to environmental information.

The Commission will promote the use of geo-spatial intelligence in the Member States⁷² and at EU level by developing its own capacity to use geospatial intelligence for environmental compliance assurance⁷³. It will also provide updated guidance on the interpretation of certain provisions relevant to forests, such as the species protection rules under the Habitats Directive⁷⁴ and the protection provisions for Natura 2000 sites, and on the application of the nature protection legislation to forests⁷⁵. The Commission will also encourage Member States competent authorities to use available technical assistance such as the TAIEX EIR peer-to-peer programme⁷⁶, and the Technical Support Instrument, which supports Member States in designing and implementing reforms⁷⁷.

⁷⁰ Council Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a Forest Law Enforcement, Governance and Trade (FLEGT) licensing scheme for imports of timber into the European Community.

⁷¹ See Environmental compliance assurance in rural areas - Publications Office of the EU (europa.eu); and Guidance on combatting environmental crime and related infringements: Circabc (europa.eu)).

⁷² The Copernicus User-Uptake Framework Partnership programme already supports pilot national forest information platforms and the use of geospatial intelligence to fight illegal logging in forests (forest crime).

⁷³ See Communication on EU actions to improve environmental compliance and governance, COM(2018) 10 final.

⁷⁴ See “Guidance document on the strict protection of animal species of Community interest under the 'Habitats' Directive 92/43/EEC” at https://ec.europa.eu/environment/nature/conservation/species/guidance/index_en.htm under revision.

⁷⁵ See “Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC”, “Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC” (under revision), and Guidance on Natura 2000 and forests at https://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

⁷⁶ The TAIEX EIR P2P tool facilitates exchanges between national authorities, allowing them to learn from each other. It can also organise events upon the request of European Commission services in a top-bottom approach (TAIEX strategic).

⁷⁷ The Technical Support Instrument support is provided upon request and covers a wide range of policy areas, including the implementation of the EU acquis, the enforcement of environmental law and forest and forest management related issues in the context of EU priorities such as the green and the digital transition. [Technical Support Instrument \(TSI\) | European Commission \(europa.eu\)](#).

The fight against environmental crime⁷⁸ is a priority in Europol's latest Serious and Organised Crime Threat Assessment (SOCTA) report (2021) and the new EU Strategy to tackle organised crime for the years 2021-2025⁷⁹.

As cases of illegal logging are being reported also for wood products that were placed on the market as EU Timber Regulation (EUTR) compliant, there is a need for Member States to ensure better monitoring and enforcement. That would include checking whether the information provided by certification schemes gives operators the necessary information for full compliance with the EUTR.

Furthermore, the Commission will analyse if it is appropriate to set minimum standards for third party certification schemes to ensure adequate standards of reliability, transparency and independent audit.

In addition, the Commission will support civil society's role as a compliance watchdog and will engage with Member States to improve access to justice in national courts in environmental matters for individuals and NGOs⁸⁰. The revision of the Aarhus Regulation will strengthen civil society's role with regard to EU decision-making.

8. Conclusion

Forests and the forest-based sector is an essential part of Europe's transition to a modern, climate neutral, resource-efficient and competitive economy. The commitments and actions proposed in this strategy will deliver growing, healthy, diverse and resilient EU forests and ensure their significant contribution to our climate and biodiversity ambitions, thriving livelihoods in rural areas and beyond, and a sustainable forest bioeconomy. The strategic approach to monitoring, decentralised planning and management set out in this strategy will help ensure that forests can deliver on these multiple functions, in full respect for the principle of subsidiarity and Member States' competence. The strategy recognises the central role of forests, foresters and the entire forest-based value chain for meeting the European Green Deal objectives, and implementation of the strategy will be underpinned by a strong and inclusive governance framework that allows all parties involved to engage and shape the future of forests in the EU. The Commission will ensure that the strategy is implemented in close coherence with other policy initiatives, including those adopted under the European Green Deal and proposals presented as part of the Fit-for-55 package.

The Commission invites all stakeholders to engage in a broad debate on the future of EU forests. Citizens and communities are encouraged to actively take part in implementing the pledge of planting at least 3 billion additional trees by 2030. The Commission invites the European Parliament and the Council to endorse this strategy. To ensure full political ownership of the strategy, the Commission will suggest a standing progress point at the

⁷⁸ Forestry crime causes serious economic, environmental and social damage and fuels corruption, money laundering and other crimes. Globally, annual revenue losses due to forestry crime are estimated to be equivalent to USD 51-152 billion a year⁷⁸, representing the biggest share of environmental crime.

⁷⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the EU Strategy to tackle Organised Crime 2021-2025, COM(2021) 170 final.

⁸⁰ See Communication on Improving access to justice in environmental matters in the EU and its Member States, COM(2020) 643 final.

Council and at the European Parliament. It will review the strategy by 2025 to assess progress and whether further action is needed to meet its objectives.