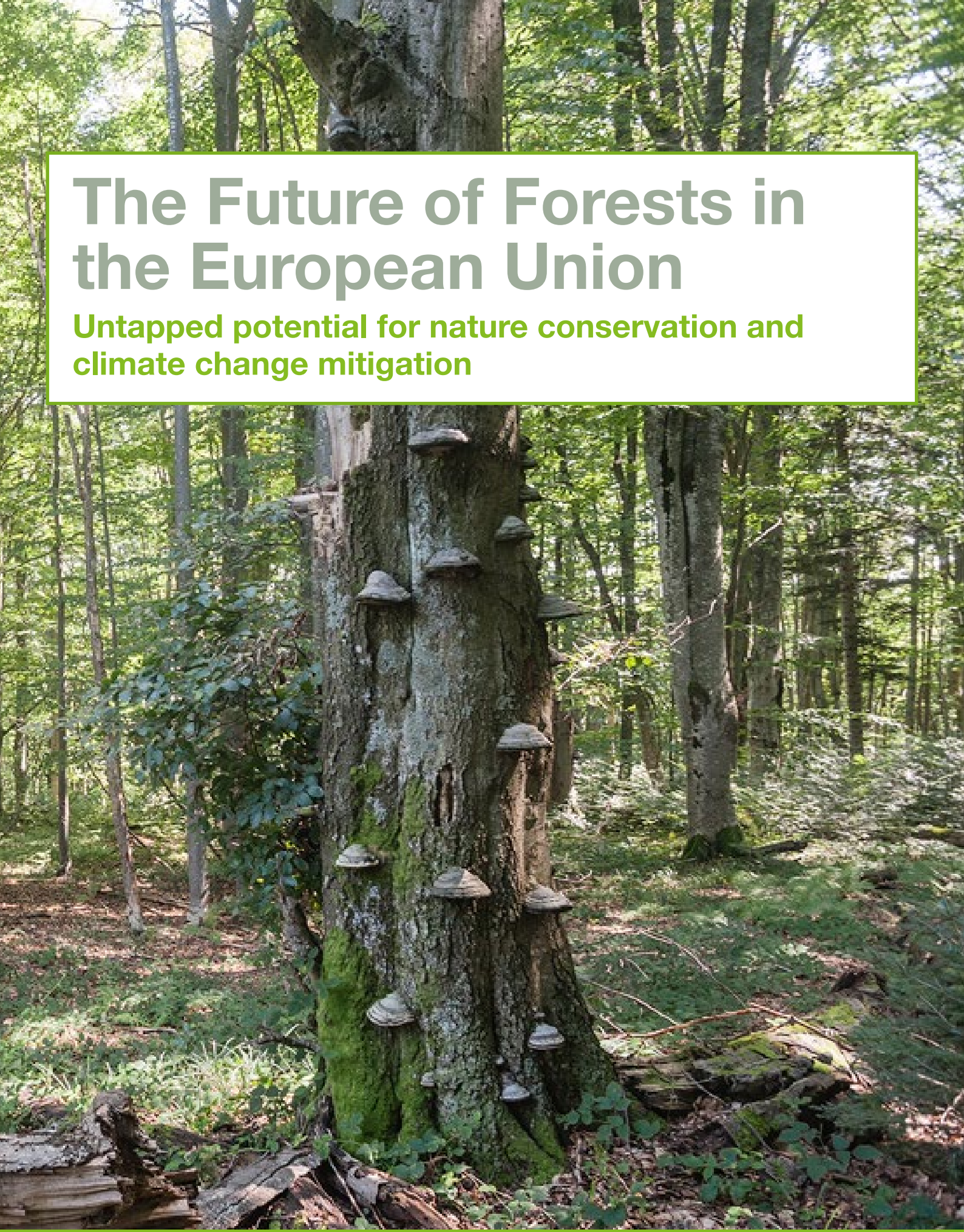

The Future of Forests in the European Union

Untapped potential for nature conservation and climate change mitigation

EU Forest Vision – Summary
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Summary

Untapped potential for nature conservation and climate change mitigation

Forests are hotspots of biodiversity, home to countless animal and plant species. Worldwide, forests absorb and store several billion tonnes of CO_2 every year, which makes them essential for a stable climate. They store and transport vast quantities of fresh water, protect coasts from flooding and prevent soil erosion and desertification.

The forests of the EU are important contributors to all of this. But large parts of these forests are being damaged and destroyed. One major reason for this is intensive forestry: by logging the vast majority of timber growth, the forestry sector is weakening these sensitive ecosystems and not allowing them to recover. Planted forests with few, usually fast-growing, tree species and even-aged trees, are displacing diverse and ecologically valuable natural forests. On top of this, droughts, storms, heatwaves, fires and other extreme weather events driven by the climate crisis are putting the EU's forests at additional risk.

Greenpeace Germany commissioned a study[1] about the future of forests in the European Union by Naturwald Akademie, financed by the German Greenpeace Foundation (Greenpeace Umweltstiftung). The study, based on the most recent data[2], reveals two major points:

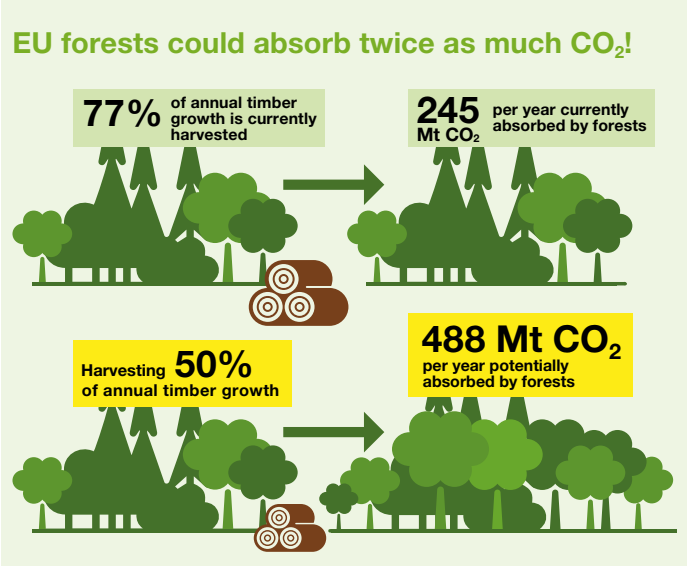
1. Forests are the most important natural CO_2 sink in the EU, and they could absorb twice as much CO_2 annually – and thereby contribute more to climate protection – than they do today. To achieve this, timber harvesting must be reduced from the current rate of 77% to approximately 50%. This would enable the timber and carbon stock of the forests to grow significantly.

2. By simulating a phase-out of wood-based bioenergy and reducing wood consumption for short-lived products like paper, the study shows that decreasing harvesting rates is possible through more efficient use of timber.

The study discusses how close-to-nature forest management can contribute to protecting nature and biodiversity.

Less harvesting – for the benefit of climate and nature

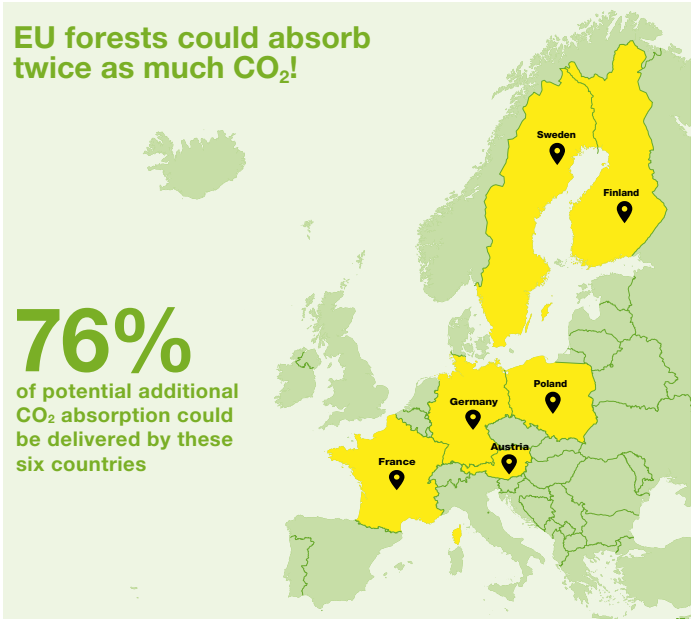
Naturwald Akademie's calculations show that, in the next 30 years, the EU's forests could absorb and store approximately twice as much CO_2 per year as they do today (487.8 million tonnes instead of 245.4 million tonnes). To achieve this, harvesting rates must be reduced by one-third and forests must be managed with a close-to-nature approach, as the ability of forests to absorb CO_2 strongly depends on harvesting rates. An additional 242.4 million tonnes of CO_2 could be taken up by EU forests annually – this corresponds to over 5% of current total annual EU emissions.



Source: Naturwald Akademie 2020[3]

More than half of the EU's timber stocks are in the forests of Sweden, Finland, Germany, Poland, France and Austria, and more than 60% of EU timber harvesting is happening in these countries. These six countries alone could deliver three-quarters of the additional annual 242.4 million tonnes of CO_2 uptake.

1,3 Welle et al. (2020) Waldvision für die Europäische Union. Naturwald Akademie GmbH. https://naturwald-akademie.org/forschung/projekte/waldvision-fuer-europa/
2 FAO (2019) 'FAOSTAT' http://www.fao.org/faostat/en/#home; EFI (2015) 'State of Europe's forests' https://foresteurope.org/state-europes-forests-2015-report/



Source: Naturwald Akademie 2020[4]

Stop the waste – better and more efficient use of timber

Between 2000 and 2018, total timber harvesting in EU countries has grown by approximately 20%. Wood-based bioenergy has been the biggest driver of this growth, with a 47% increase in harvesting of wood for energy production. The study simulates an end to harvesting wood for energy and shows that such a shift would significantly strengthen EU forests as a natural CO_2 sink: an additional 210.5 million tonnes of CO_2 could be absorbed, equivalent to 87% of the total additional annual CO_2 uptake capacity of 242.4 million tonnes.

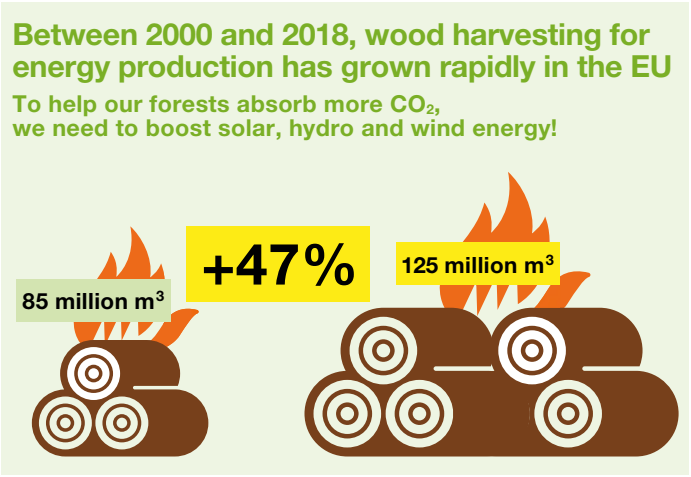
However, today more and more timber is being harvested for energy production in EU forests, driven by the EU's Renewable Energy Directive. The largest producer is France, accounting for one-fifth of the total harvesting for this purpose. By far the largest absolute increase in energy wood production in the EU has occurred in Germany, which has more than doubled its production – a wrong turn in climate politics.

Enabling EU forests to take up more CO_2 would require a phase-out of harvesting of wood for energy production and the complete replacement of wood-based bioenergy by clean renewable energy sources such as wind, water and solar. Burning timber is a waste of this valuable resource, resulting in CO_2 taken up and stored in the harvested trees over a period of many decades being instantly released back into the atmosphere through combustion. In addition, other trees are often damaged during harvesting, resulting in additional CO_2 emissions and reducing the damaged forest's capacity to take up CO_2 in the future. Using wood-based bioenergy to replace fossil fuels therefore does not contribute to mitigating climate change.

Also, in the paper sector, timber consumption could be significantly reduced by fewer disposable products and more recycling. In simulations for energy wood and short-lived products such as paper, the study calculates the importance of more efficient use of wood for greater climate and nature protection.

To use wood in a climate- and environment-friendly manner, emphasis must be put on long-lived wood products, for example in the construction, interior design and furniture sectors. Timber must be reused and recycled as often as possible (so-called 'cascade use'). Usable waste and residual materials produced in circular economies can be used for disposable paper products, such as toilet paper, or for the production of biomass-based energy.

If wood were to be used more efficiently, harvesting rates could be reduced without additional imports. In this way, forests outside the EU could also be restored in order to maintain or enhance their CO_2 sink capacity and contribute to mitigating climate change.



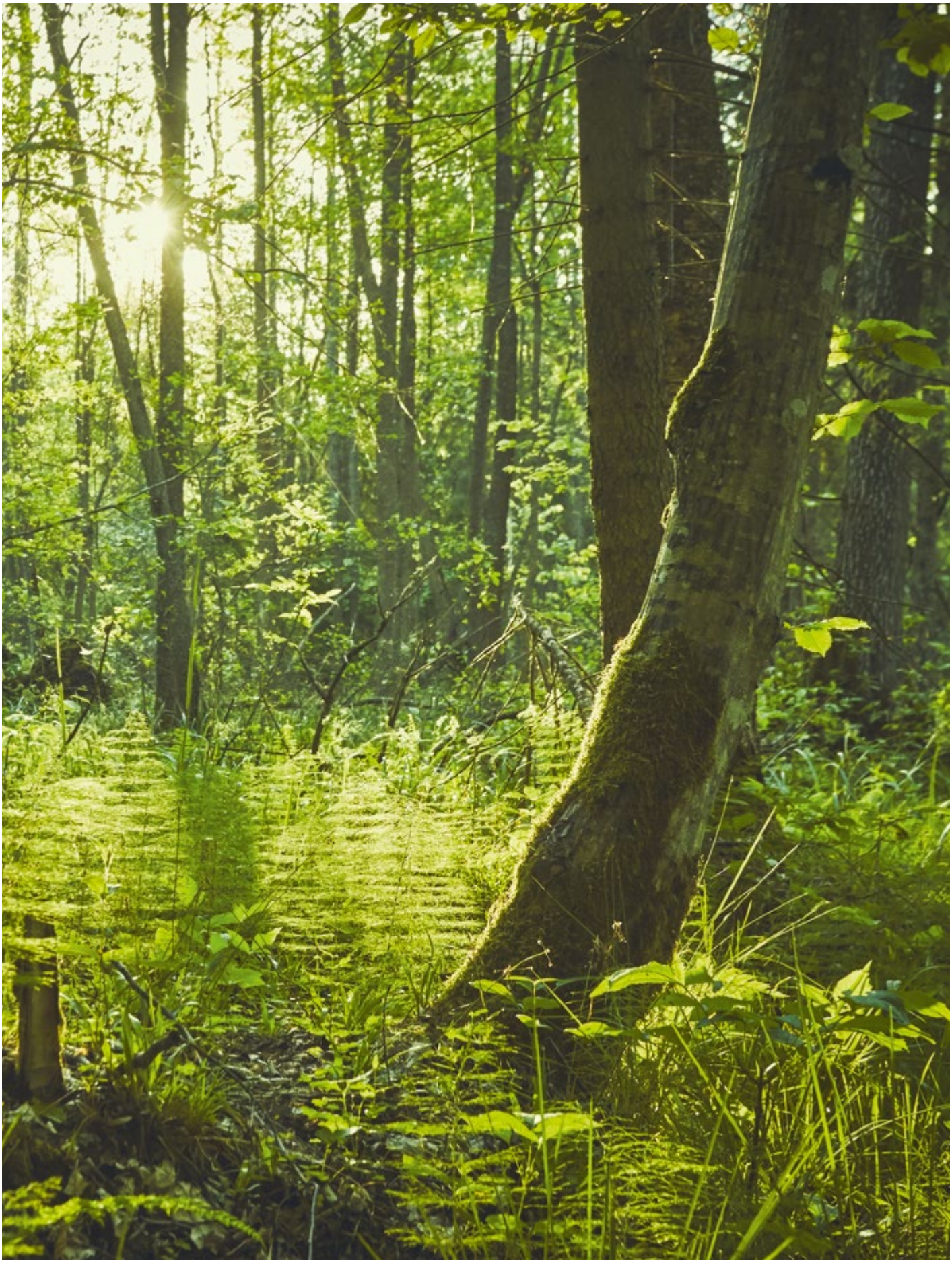
Source: FAOSTAT[5]

Close-to-nature forests – working with nature

If only about half of the annual growth in the EU's forests was harvested, forests could grow, be restored and become more natural again – with native tree species, well adapted to their sites. These tree species usually regenerate naturally. In close-to-nature managed forests, trees can grow bigger and get older before being harvested. Some of the older trees are not harvested at all; these die naturally and remain in the forest as standing or lying deadwood, providing an important habitat for many plant and animal species. Forest structures similar to natural forests develop. Such close-to-nature forests are more resilient to extreme weather events such as drought, floods, wildfires and heatwaves, which are becoming more frequent and intense as a result of the climate crisis.

Decreasing harvesting rates would also allow the creation of more protected areas without any logging. Here natural processes can evolve freely. Such areas with a high amount of deadwood provide a vital home for many animal and plant species, including species threatened with extinction. Currently, only 3% of EU forests are protected from logging. In the short term, the proportion of strictly protected forests should be increased to at least 10% of the EU's forest area.

4 Welle et al. (2020) Waldvision für die Europäische Union. Naturwald Akademie
5 FAO (2019) 'FAOSTAT' http://www.fao.org/faostat/en/#home; EFI (2015) 'State of Europe's forests' https://foresteurope.org/state-europes-forests-2015-report/



Białowieża in early summer

Implications for EU climate policy – protecting and restoring forests cannot replace emission cuts

At the end of 2019, the European Commission presented its European Green Deal, aiming at reducing greenhouse gas emissions to a level not exceeding the region's CO_2 uptake (net-zero) by 2050.

In September 2020, the Commission presented a plan to increase the 2030 climate target to a net emissions reduction of at least 55% below 1990 levels. This plan, however, relied on counting emissions absorbed by carbon sinks like forests and soil, raising the target on paper, but not in the real world.

In October, the European Parliament voted instead to increase the EU's 2030 climate target to a 60% cut in real emissions and rejected the Commission's plan to rely on accounting tricks to artificially inflate the 2030 climate target with natural carbon sinks.

To have a chance of limiting global heating to 1.5°C above pre-industrial levels, avoiding the worst effects of climate breakdown, Greenpeace is calling for a minimum 65% cut in EU emissions by 2030. The EU must not delay emission reductions through the inclusion of natural carbon sinks in its target for 2030. Separate targets for CO_2 removals are needed to ensure that natural carbon sinks are additional to emission reductions, and that real emission cuts are prioritised and transparent.

The capacity of natural ecosystems such as forests, peatlands and others to take up CO_2 needs to be increased through conservation and restoration. The management of forests plays a vital role here: the more timber that is harvested, the less CO_2 the forests can absorb. European forests' capacity to absorb and store CO_2 has declined in recent years and is projected to continue doing so, mostly due to increasing logging rates.

Reforming the EU's forest and energy policies could significantly strengthen the forests' capacity to take up CO_2. Having separate and transparent targets for emission reductions and CO_2 uptake by natural ecosystems can incentivise ambitious climate action and is therefore needed.

For the EU, the results of Naturwald Akademie's study demonstrate a threefold opportunity both to contribute to the European Green Deal and to live up to its global responsibility in implementing the Paris climate agreement and the Convention on Biological Diversity (CBD):

1. Restoring forests to a close-to-nature state will enable them to contribute to climate change mitigation by taking up and storing more CO_2.
2. In most regions, these forests will be more resilient and better able to adapt to the impacts of climate change, such as droughts, storms and other effects that are now unavoidable[6]. However, the climate crisis must still be successfully addressed by immediate and ambitious climate change mitigation policies, specifically in the sectors of energy, transport and agriculture.

6,7 In some Mediterranean forest ecosystems the risk of larger forest fires can increase during extreme drought and heat.

Dying forest in the Harz Mountains

3. Protecting or restoring natural habitats will preserve and replenish the native diversity of animal and plant species in forests.

Increasing the consumption of timber products, as is currently promoted by the forestry and energy policies of some EU countries, does not contribute to climate change mitigation but instead negatively impacts forest ecosystems. To protect and restore the EU's forests as important natural habitats and CO_2 sinks, a transformation of forest-related policies is needed. The EU needs a common forest vision.

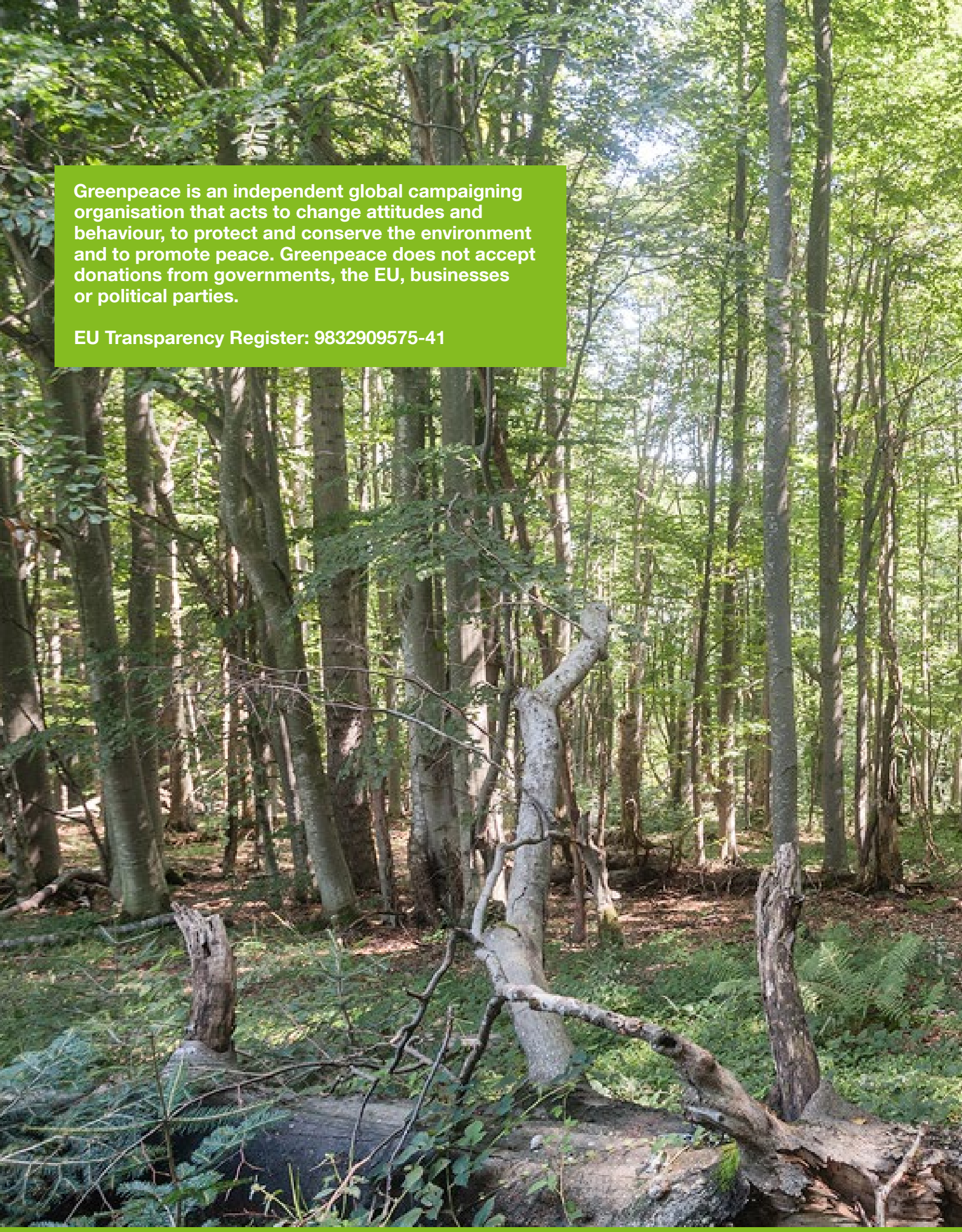
Policy recommendations

If the EU wants to fulfill its climate targets and contribute to limiting global heating to 1.5°C above pre-industrial levels, it needs to realise the essential role of its forests in addition to pursuing its ambition of climate change mitigation in all other sectors. The EU therefore needs policies that guarantee:

- Less harvesting of timber[7]
- At least 10% strictly protected areas in forests
- Forest restoration by managing forests with a close-to-nature approach
- A phase-out of logging of wood for energy production[8]
- A drastic reduction in production and consumption of disposable wood and paper products
- A ban on disposable wood and paper products, such as tissue products, made from fresh wood fibre
- More recycling of paper and wood
- More wood used in long-lived products (eg furniture and the construction sector)
- Ambitious climate change mitigation policies with separate transparent targets for:
  — Emission reductions from burning fossil fuels as well as from land use change
  — Restoring and enhancing forests and other natural CO_2 sinks in line with the EU's biodiversity strategy

8 See Greenpeace's position on bioenergy for details

Old beech forest in the Spessart



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