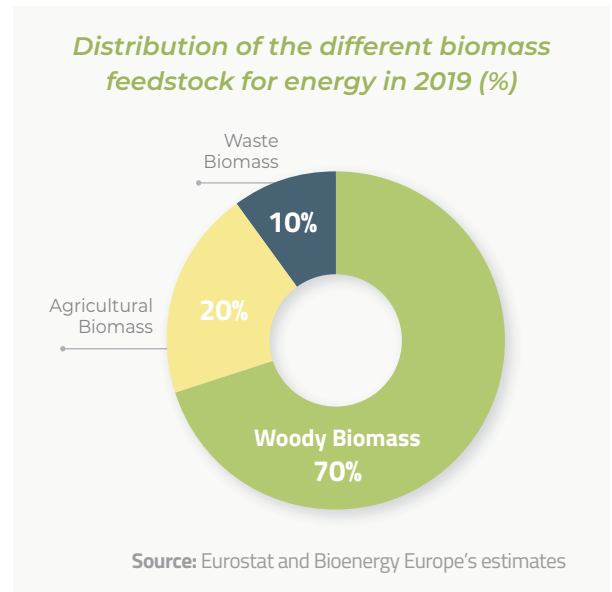
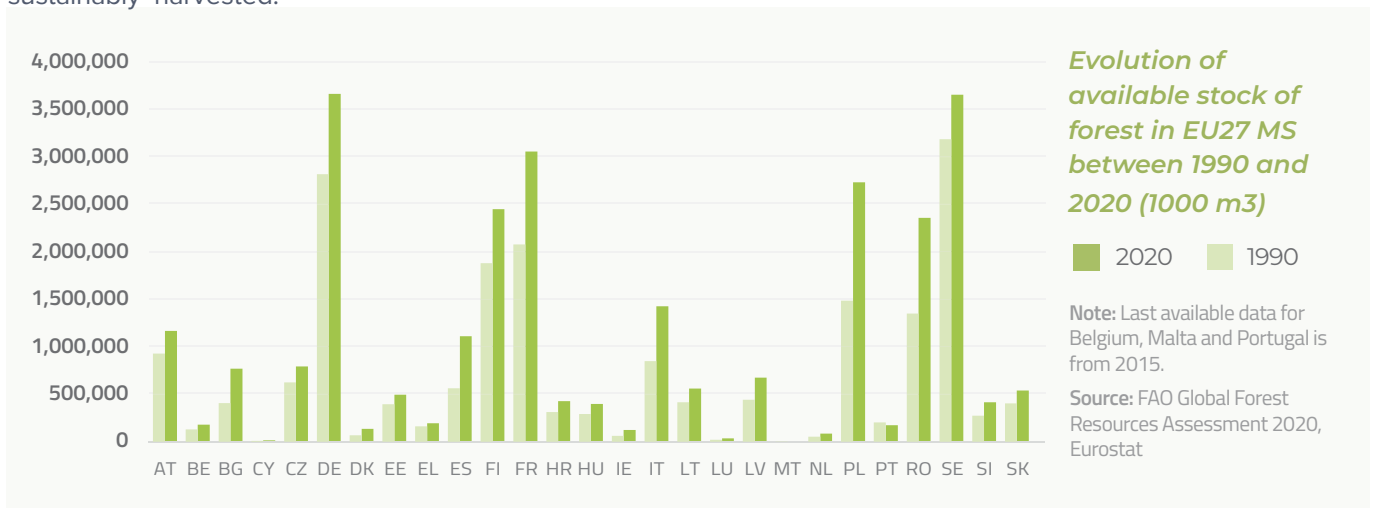


BIOMASS SUPPLY

Bioenergy is the main renewable energy source in the EU and its largest indigenous energy source. It not only diversifies Europe's energy supply while lowering greenhouse gas emissions, but also creates jobs and economic development, especially in rural areas. Bioenergy relies on the input of biomass which is derived from organic material. Most of the inputs for bioenergy are residues and by-products such as sawdust and shavings from forest-based industries, agricultural residues from farming, and organic waste from both the food and beverage industry, but also municipal collection. The most import feedstock is woody biomass which accounts for 70% while agricultural and waste biomass represent smaller shares at 20% and 10% respectively. In many European policy scenarios and international climate change mitigation pathways, the share of agricultural biomass and residues is forecasted to grow significantly as a greater focus on the circular bioeconomy increases material utilisation and the valorisation of waste products.



Europe's forests have been growing for the past three decades. The EU 27 had an average annual increase of 262.000 ha between 2010 and 2020, and in 2020, forests and other wooded land represented nearly half (45%) of its land area. In addition to the forest area increasing, forest carbon stock has also been rising in Europe. In 1990, the average forest stock was 133 m³/ha and in 2020, that number had increased by more that 30% to 173 m³/ha. Within every European country analysed, harvesting levels are below their net annual increment value. This means that the amount of wood harvested from the forest is less than what grows every year. This ensures that forests continue growing and that forest resources are sustainably harvested.






Despite an increase in the use of bioenergy, the share of wood fuel to industrial round wood has barely changed. An increasing use of bioenergy is not caused by increased harvesting, but rather more efficient use of residues. Forests play a vital role in supplying biomass for the bioeconomy, sequestering carbon, and providing habitats that protect biodiversity. In order to safeguard the health of Europe's forests, it is important

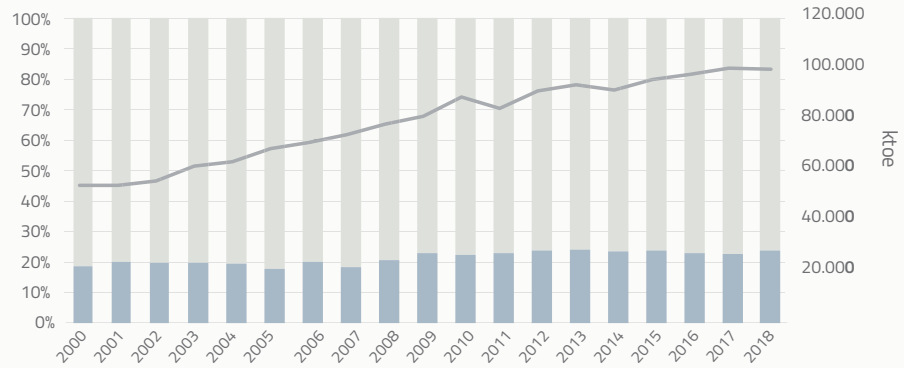
not to confuse lack of sustainable management with protection. In a 2020 JRC report, it was mentioned that 38% of the land that burned in 2020 was designated as part of conservation areas, despite that category only representing 18% of the EU's land area. Forests are being subjected to more stress due to climate change, weakening the defence systems of individual trees and increasing the overall vulnerability of forests.

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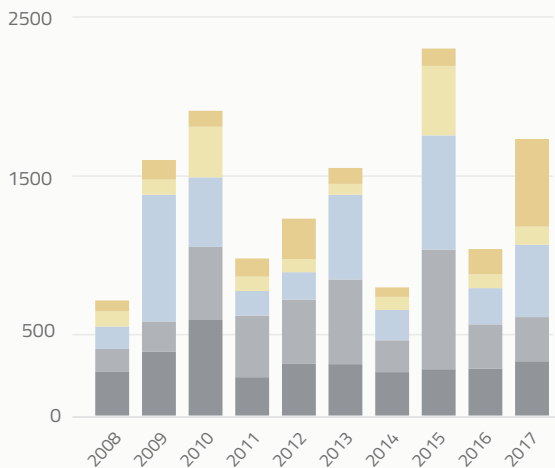
Share of EU27 + UK wood removals according to end use

-  Evolution of gross inland consumption of primary solid biomass (ktoe)
-  Industrial roundwood (%)
-  Wood fuel (%)






Source: Eurostat, Bioenergy Europe's estimates



As we have seen in recent years, stronger storms, hotter and drier summers, and milder winters are all increasing the number of disturbances. The combination of reduced defence and increased frequency of extreme events is a major threat to the survival of forest ecosystems, and it is important to take action to preserve these ecosystems. The only way to mitigate the increasing number of disturbances that are occurring is to support the active management of forests to actively reduce the risk factors contributing to these negative events.



Evolution of forest area affected by disturbances in EU27 + UK between 2000 and 2017 (1000 ha)

-  Fires
-  Severe weather events
-  Diseases
-  Insects
-  Other disturbances

Note: Considered diseases caused by bacteria, fungi, phytoplasma or viruses and severe weather events such as snow, storms or drought.

Source: FAO Global Forest Resources Assessment 2020

Responding to forest disturbances, bioenergy plays an important role in providing a use for salvage logging which harvests low quality wood which cannot meet the quality or physical characteristics required by sawmill, pulp and panel industries. This valorisation can thus help defray costs and provide funding for forest owners to improve the health of their forests and respond to these disturbances.

Recommendations

1. **Forestry is, and should remain, the competence of Member States.** Forests in Europe greatly vary according to geographical and climate differences. It is therefore not possible to regulate the specifics of sustainable forest management at the European level, but rather in accordance with the principle of subsidiarity, which should be addressed by national, regional, or local authorities including those of third countries.
2. **Promote integrated approach to forest biodiversity conservation.** Active forest management is key to developing resilient, multifunctional forests. An integrated approach should be promoted to help reduce forest vulnerability
3. **Support a bio-based economy.** Feedstock supply will encourage a necessary transition from fossil-based economy to a bio-based economy.