



EUROPEAN FOREST INSTITUTE

Forest protection and wood energy

– balancing the conservation of
biodiversity with the increased
need for wood for bioenergy

In striving to use increasing amounts of woody biomass to meet ambitious targets for renewable energy, European countries must remember the need to protect forest biodiversity and landscapes. A report published by the European Forest Institute looks at the interrelationships between these conflicting demands on Europe's forests.

Forest protection and wood energy – balancing the conservation of biodiversity with the increased use of wood for bioenergy

Wood and wood-based biofuels already account for more than half of the renewable energy used across Europe today. The demand for various forms of wood energy is sure to increase as the EU seeks to obtain as much as 20% of its energy from renewable sources by 2020. Many EU countries are looking to their forests as a rich potential source of climate-friendly bioenergy.

But at the same time, more forests are being protected for their biodiversity and for their irreplaceable landscape and amenity values. The European Forest Institute (EFI) report ‘Impacts of biological and landscape diversity protection on the wood supply in Europe’ examines interrelationships between the demand for wood and biomass, and the protection of forest areas for biodiversity.

The report considers how European policy-makers can find a balance between forest protection and the increasing exploitation of wood energy resources.



Aleksander Bolbot / www.fotolia.com

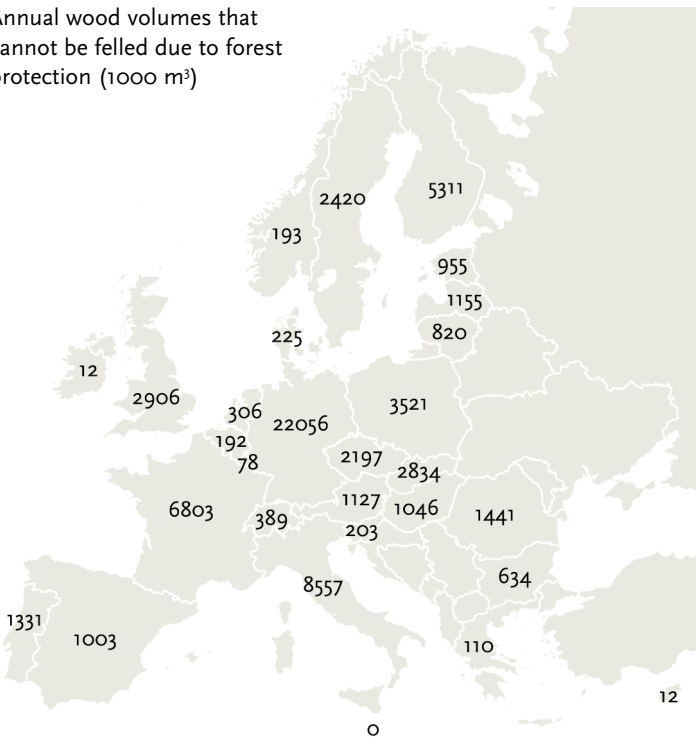
In many forests protected for their biodiversity, like this forest in Poland, the harvesting of wood is strictly limited.

Counting the cost of protection

The report's main author, Hans Verkerk, explains how the EFI team compiled data from different countries to assess the overall impact of forest protection on Europe's potential wood supply. "We found that out of a total forest area of 1,660,000 square kilometres in the EU, Norway and Switzerland, about 120,000 square kilometres (7%) is protected for biodiversity and 170,000 for landscape reasons," he says.

The EFI team state that protection entails significant local harvesting restrictions, which for the whole of Europe add up to a figure comparable to the total amounts of timber harvested annually in Italy and Germany together. However, since these protected areas are spread out all over Europe, impacts can easily be compensated within each region, for instance by investing in better organised forest management. This makes it possible to realise measures to enhance biodiversity while also utilizing an increased supply of wood.

Annual wood volumes that cannot be felled due to forest protection (1000 m³)





Saku Ruusila

Harvesting residues are today increasingly collected, chipped and transported for use in bioenergy production.

Differing practices around Europe

Verkerk stresses that even if this suggests lost potential, much of this unused wood in protected areas is in special or valuable sites where harvesting would in any case be undesirable or not viable due to these areas' remote locations and challenging terrain.

Harvesting is typically permitted in forests only protected to a limited extent, such as national and regional landscape parks. Especially in Switzerland and Austria, extensive forest areas have been designated for the protection of landscape elements, but few restrictions are applied to the volumes of wood that can be felled in these areas.

The EFI report emphasises that restrictions on the harvesting of wood in protected forests vary considerably between different countries. In forests protected for their biodiversity, felling restrictions vary considerably, reducing wood harvesting potential inside the protected areas by more than two-thirds on average in Belgium, Cyprus and Finland, but just one-third in France, Germany, Denmark and Spain.

Is protection strict enough?

Verkerk believes that some countries should consider whether they ought to limit fellings more strictly in forests protected for their biodiversity. “Fairly intensive wood harvesting is still allowed in many protected forests – and the question could be raised whether European forests are at this moment sufficiently protected,” he says.

“In shaping forest policies it’s important to look carefully at both sides of the story, and comprehensively integrate the management of forest resources, rather than having separate and potentially conflicting biodiversity management and wood energy programmes,” says Verkerk, who is now working on a parallel study assessing the impacts of increased wood harvesting on biodiversity.

Protection generates many benefits

Although forest protection may locally have a negative economic impact in the forest industries sector, its wider impacts are considered positive when the multifunctional role of forests is considered. This is because forests provide so many other goods and services, ranging from natural forest products (including berries, nuts, mushrooms, fruits, herbs, resins and game) to recreational amenity values – not forgetting the vital role that forests play as carbon sinks in the context of climate change.

The EU is strongly committed to international biodiversity and climate agreements that encourage both forest protection and the use of wood energy. “Understanding possible trade-offs and defining optimal management practices while keeping these various policy goals in mind is a key issue in European forestry today,” says Verkerk. “Careful planning is required to accommodate both the need for protection and the growing demand for wood – while not forgetting all the other goods and services that forests provide.”

The EFI Technical Report ‘Impacts of biological and landscape diversity protection on the wood supply in Europe’ can be downloaded at www.efi.int/files/attachments/publications/tr_27.pdf

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EFI is the leading pan-European institution conducting, networking and advocating for forest research. EFI is also a widely acknowledged provider of unbiased, policy-relevant information on European forests and forestry.
