

Forest Benefits and Biodiversity

The Facts

Forests, if managed sustainably, play an essential role in climate and biodiversity protection. They protect soil and water resources, provide livelihoods to millions of people worldwide, and contribute to the wellbeing of rural and urban communities.[1]

Forests are one of the world's most valuable resources and home to more than half the world's land-based animal and plant species.[2]

Forests cover 31% of the world's total land area[3] and 40% of the European territory.[4] European forests are growing in both area and volume, currently approximately 28 billion m^3 and growing by around 612 million m^3 every year. Less than three quarters of the annual growth is harvested and a net increment of over one quarter of the annual growth is added to the forest stock, every year.[4] Between 2005 and 2020, European forests grew by 58,390km^2 – that is an area larger than Switzerland and equivalent to 1,500 football pitches of forest growth every day.[5]

Nearly 24% of forests, almost 50 million hectares – an area equal to that of Spain, are in areas protected for the conservation of biodiversity and landscape. The area of forests designated for biodiversity conservation has increased by 65% in 20 years, and the area designated for landscape conservation by 8%.[1]

Forests in Europe are also becoming more diverse in tree species composition. 67% of forest area is composed of two or more tree species.[1] The vast majority of terrestrial biodiversity is found in the world's forests. Together they contain more than 60,000 different tree species and provide habitats for 80% of amphibian species, 75% of bird species and 68% of mammal species.[3]

> *"Over the last 37 years, there were only minor fluctuations in the common forest bird index in European forests. The fact that populations of common forest bird species are stable indicates the overall stability of the forest environment and biodiversity."*
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> State of Europe's Forests, 2020

Over the past four decades, forests have helped moderate global warming by absorbing around a quarter of the carbon dioxide emitted by human activities.

Carbon sequestration in forests reduces the rate of carbon accumulation in the atmosphere and so reduces the rate of climate change.[6]

Forests directly affect livelihoods and have recreational and cultural importance.

Most of the world's societies today have at least some interaction with forests and the biodiversity they contain. However, all people from around the globe benefit from the functions provided by the factors of this biodiversity in the carbon, water and nutrient cycles and through the links with food production.[3]

The forest sector consists of forestry, the wood industry, and the pulp and paper industry. About 33 million people (1% of global employment) are estimated to work directly in the formal and informal forest sector.[3] The forest-based industry employs 4 millions Europeans.[7] They are vital for the conservation of biodiversity, energy supply, soil and water protection and worth €166 billion to the European economy each year.[8]

80% of the world's forests are publicly owned and therefore strengthening policy, legal and institutional frameworks that improve local people's rights to access and manage forest resources goes a long way to improve livelihoods.[9] In the majority of countries, more than 90% of forests are accessible to the public, with the average around 70%. About 6% of forests are primarily designated or managed for public recreation. The average interaction with forest recreation such as walks, hiking, picnics, etc, is estimated at 16 visits per person per year.[1]

Forests also provide positive impacts to individuals' physical and mental health across all ages and genders, particularly those living in urban areas and the less privileged of the population. In industrialised and urban living environments,

green spaces can enhance motivation for physical exercise and reduce health problems linking to a desk bound lifestyle such as excess weight, chronic stress and attention fatigue.

Green spaces have also been seen to reduce mental distress and improve mental wellbeing.[3]

For millions of people living in poverty, forest and tree resources not only provide food, fuel for cooking and heating, medicine, shelter and clothing, but they also function as safety nets in crises or emergencies.[9]

> *"Forests indirectly decrease the occurrence of food and waterborne diseases by filtering water and providing wood fuel for cooking food and boiling water. This is vital since waterborne diarrhoeal diseases, for example, are responsible for 2 million deaths each year."*
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> Forest Europe, State Of Europe's Forests, 2020

Forests are important for preventing soil erosion, protecting water supplies and maintaining other specific ecosystem functions.

Countries apply specific policies and measures to support forests in order to recognise and safeguard their ecosystem functions. Such measures include the identification of forests to be assigned primarily for protective purposes, and the restriction or adaptation of certain management practices to enhance protective functions. Designations of protective forests are administrative in nature or the result of decisions made in the context of land-use and forest management planning and result in specific obligations related to practical management.

> *"Forest and mountain ecosystems serve as source areas for more than 75% renewable water supply, delivering water to over half the world's population."*
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> FAO, A Guide To Forest-Water Management, 2021

Forests also play a vital role in the protection of infrastructure or inhabited areas. Natural hazards such as avalanches or rockfalls are common in mountainous areas. Protective forests can be an efficient means for providing protection against such hazards in those areas. To maintain or even increase these protective functions, specific forest management schemes were developed which often differ considerably from non-protective forests. The area of protective forest is increasing in Europe.

Sources

1. State of Europe's Forests, 2020
2. WWF, Why Forests Are So Important, August 2023
3. FAO, The State of World's Forests, 2022
4. EU Green Source, 2023
5. Two Sides Analysis of FAO data, 2005-2020
6. Government of Canada, Forest Carbon, accessed September 2023
7. Green Source, Key Facts, accessed September 2023
8. Green Source, Our Priorities, accessed September 2023
9. FAO, Forestry Communication Toolkit, Accessed September 2023

November 2023

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