

Forests and water: a perfect partnership?

This focus of this year's International Day of Forests (21 March) is on the role forests play in protecting our supply of water. Forests and water form a perfect partnership in many ways. Improving our understanding of the relationship and interaction between forests and water will improve our awareness of the impact they have on our environment. The European Environment Agency (EEA) sets out some key facts on the relationship between forests and water.

Forests and water work together to deliver a number of key ecosystem services essential for our wellbeing: Biodiversity protection, drinking-water supply, soil protection, water retention and flood prevention are just some of those services provided by forests and freshwater ecosystems. The combination of the two creates very attractive places for different types of recreational activities as well.

Europe's forests cover more than 40 % of the total land surface in the 33 member countries and six cooperating countries of the European Environment Agency. This is equal to 186 million hectares (ha).

European forests are connected to Europe's water bodies and water cycle and serve as reserves for large groundwater bodies and sources for many rivers.

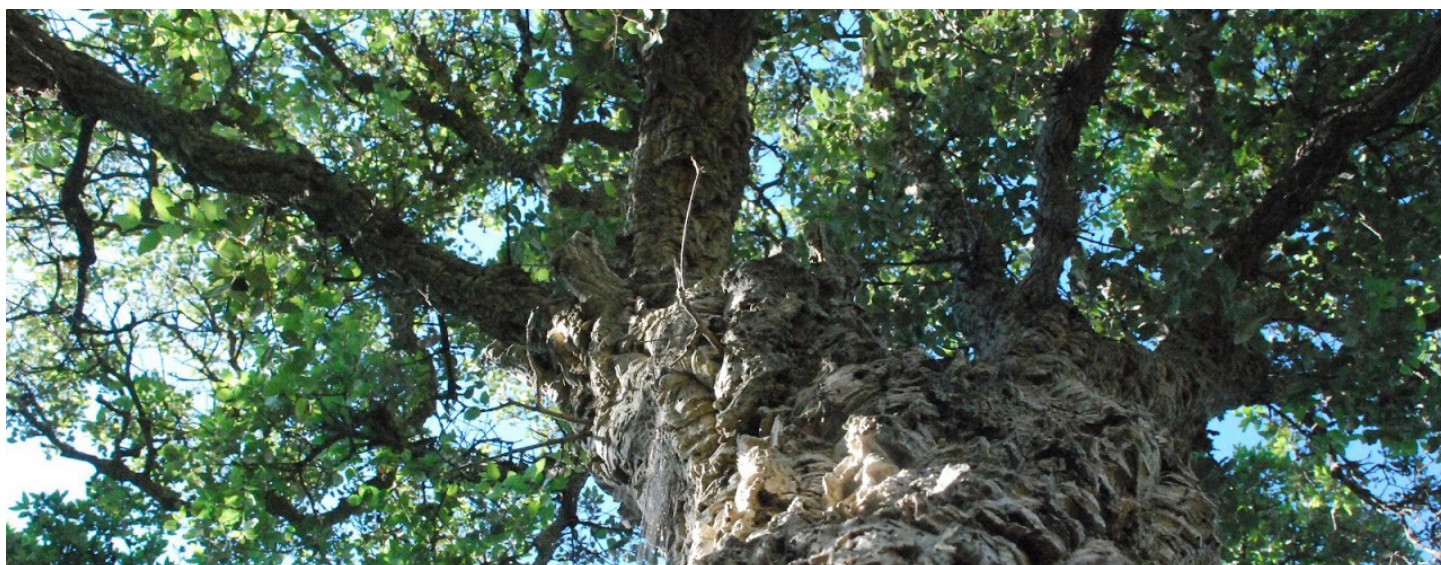
Approximately 870 000 kilometres of river networks pass directly through forests. Around 3 500 km³ of water flows every year from forested areas to downstream areas. Every year the hydrological cycle within European forests circulates a massive amount of fresh water, about 98 250 km³. Europe has more than 370,000 lakes with the area greater than 0.5 hectares. The European lakes cover

around 132 000 km² of which 90 % are located in forested catchments.

Forests act as regulators, playing a significant role in retaining water during times of drought and in helping to reduce flooding during extreme rainfall.

Water retention of forests is an effective measure for climate change adaptation. Basins with high forest cover retain 50 % more water compared to basins where forests are sparse. Floodplain forests have many functions in water retention by storing excessive amounts of runoff and slowing down fast moving water. Around 350 000 km² of Europe's landmass is made up of floodplains which corresponds to 8 % of the total European land surface.

Forests occupy 15 % of total floodplains in Europe. The largest floodplain areas in Europe are located in Spain, France, Romania, Poland, Sweden and Germany. The highest proportion of floodplain coverage compared against country territories are found in the Netherlands, Romania, Slovakia and Greece (more than 15 %). Deforestation, fragmentation of floodplain forests reduce their capacity in delivering many ecosystem services.



The European Environment Agency (EEA) is an agency of the European Union. The EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment, through the provision of timely, targeted, relevant and reliable information to policymaking agents and the public. For more information, visit: eea.europa.eu.

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