



Protecting forests in a changing environment

Ministers responsible for forests in Europe have been collaborating for 25 years through FOREST EUROPE in order to promote the protection and sustainable management of the continent's forests.

In these 25 years new challenges have emerged, and threats affecting forests are appearing or intensifying, many of which are linked to climate change and its effects.

We are living in a time of exceptional environmental change. Climatic extremes are predicted to occur more frequently in the near future and climate change could reinforce damage caused by drought, wildfires, storms, and pests, among other threats to forests. This, together with other long-range environmental changes, such as those caused by increasing pollution or the challenges resulting from a growing human population and land-use changes, affect the health and vitality of forests. This puts at risk their long-term capacity to provide multiple goods and services and to fulfil their essential ecological, economic and social functions.

Only through sustainable forest management will it be possible to face these challenges, and so protect forests and ensure their stability, resilience and productivity.

Sustainably managed forests recover more easily from damage and diseases, and adapt better to changing conditions. That is why the protection of forests in this changing environment should be enhanced by strengthening further the implementation of sustainable forest management.

In addition to this, the cross-border nature of many of the threats affecting forests, such as air pollution or those aggravated by climate change, makes more evident than ever the need to reinforce international cooperation in the protection of forests.

Since its inception in 1990 FOREST EUROPE has worked to protect forests and ensure the long term provision of forest goods and services, through the promotion of sustainable forest management. Numerous previous FOREST EUROPE resolutions have dealt with different aspects related to forest protection. At the 7th FOREST EUROPE Ministerial Conference, ministers responsible for forests in Europe will reaffirm their commitment to enhance the protection of European forests and to strengthen cooperation in the pan-European region in this field.

Protecting forests means protecting us!

Forests provide us with food, water, energy and shelter, as well as a wide range of products and intangible benefits. They are home to thousands of animal, plant and fungi species, and form one of nature's most spectacular landscapes.

And forests not only provide us with goods or services: they also protect us.

Forests help prevent soil loss and erosion, preserve drinking water resources, stabilize stream banks and sand dunes, and reduce noise pollution. And they are vital in the fight against climate change. They protect our health and well-being, and play an important role in protecting us and human infrastructures from natural or human-induced hazards such as pollution, storms, avalanches, landslides and rockfalls and floods, this function being particularly relevant in areas with extreme climate and in mountainous areas.

But forests need to be protected too. The goods, services and protection provided by forests could be at risk if they are not adequately defended.

The protection of forests is a key part of sustainable forest management. An active protection in terms of preventing, controlling and combating risks and damage, as well as, if needed, restoration, is often needed to secure the conservation of forest biodiversity as well as the multiple services and functions provided by these ecosystems.

This is especially relevant in the case of European forests, since forests in Europe have been influenced by human settlements and activities over many centuries. This has led to great knowledge, skills and experience in forestry practices, and to the development and implementation of policies, regulations and long-term planning, all of which are relevant factors in the protection of the forests in Europe.

Management practices linked to the protection of forests include, among many others, those related to the control of pests and diseases, and forest fire prevention and intervention.

Key messages

- The protection of forests is a core part of sustainable forest management.
- Sustainably managed forests are more resilient: they recover more easily from damage and diseases.
- Many threats (erosion, forest fires, desertification, storms, pests and diseases, land use changes...) affecting forests have a cross-border nature. For this reason, strengthening international cooperation in the protection of forests is indispensable.
- Monitoring and research, and the exchange of information, are key to increase understanding of the state of forests and their response to changing environmental conditions.
- Interaction between research, policy and forest management about forest hazards is vital.

Key facts

- Over 25 million hectares, or 11 percent, of the forest area in Europe is reported to protect water supplies, prevent soil erosion and provide other environmental protective functions¹.
- Around 3.3 million hectares, or 1.5 percent of the European forest area, are designated for the protection against natural hazards of infrastructure and managed natural resources.
- Protected areas are one of the instruments used for protecting biological diversity, landscapes, and the protective functions of forests. The area of forests protected for biodiversity in Europe adds up to about 29.9 million ha. That is almost the size of Italy and equivalent to 12.2 percent of the European forest area. A clear, increasing trend of areas of forests protected for biodiversity and landscape in Europe can be observed over the last 15 years.
- 35 percent of the European forests are significantly fragmented by agriculture and artificial lands. For two thirds, forests are in a mixed, still predominantly natural context.
- 3 percent of the total forest area in Europe is affected by damage. Damage by natural biotic and abiotic sources is an essential component of forests ecosystems, since it fosters processes such as regeneration, selection, adaptation and evolution. However, human-induced, long-range impact on the environment, such as air pollution or climate change, expose forests to aggravated risks; reducing the health and vitality of forests and also resulting in economic losses.
- Fires occur in most European countries but they affect forests particularly in the Mediterranean area. Future climate change could make the effects of fire damage worse. In 2010, fire occurred on 0.27 percent (664,000 ha) of the forest area in the pan-European region.
- Conservation and use of forest genetic resources are a vital component of sustainable forest management. Genetic diversity ensures that forest trees can survive, adapt and evolve under changing environmental conditions. Genetic diversity is also needed to maintain the vitality of forests and to cope with pests and diseases.
- The areas managed for conservation of forest genetic resources and for seed production have increased over the last 25 years in the pan-European region. In 2015, more than half a million hectares of forests were managed for genetic conservation and over a million hectares for seed production.

¹ This is the area of forest and other wooded land officially designated and managed to ensure the protection of water supplies and prevent soil erosion, but this does not imply that the remaining areas do not provide these services. On the contrary, much of the remaining forests and other wooded land in Europe play a similar role amongst the other ecosystem services that they provide.