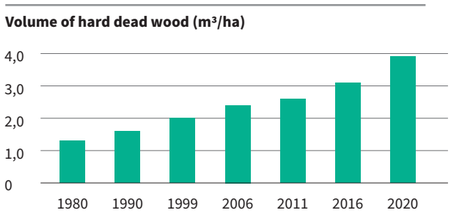
Dead wood gives a habitat for hundreds of forest species

Dead wood plays an important role in forest biodiversity. It gives a habitat for hundreds of forest species, especially for a variety of fungi, lichens and beetles, but it also provides a home for many bird species. For example, many woodpeckers make their nests in decaying trees.

After decreasing up to the 1980s, the volume of hard dead wood has since reached a clearly higher level than 100 years ago.

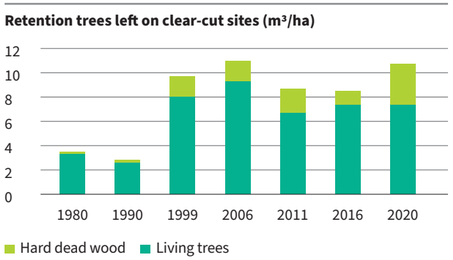


Source: LUKE Natural Resources Institute Finland

Retention trees are important for biodiversity

Retention trees are trees left permanently standing in connection with regeneration felling; their purpose is to promote biodiversity. Groups of retention trees are often left standing in both thinnings and regeneration felling. In sustainable forestry the setting up of a new forest must always be ensured after harvesting.

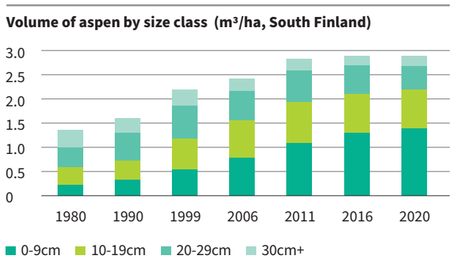
Source: LUKE Natural Resources Institute Finland



Aspens are home to many species

Stout broadleaves are home to many species and a key for forest biodiversity. Aspen is a key species, whose presence is of great importance both in the growth and decay stages. It is home to many species of organisms such as lichens, mosses, insects and larvae, which thrive on or inside it. Woodpeckers also make nesting holes in aspen. These can be later inhabited by flying squirrels.

Source: LUKE Natural Resources Institute Finland

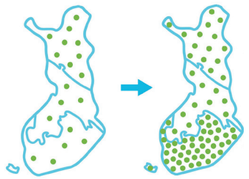


Number of large diameter (40+ cm) trees has quadrupled in the last 100 years

Finnish forests have become denser and stouter. This benefits species which require these qualities.

1 mil. trees

Source: LUKE Natural Resources Institute Finland

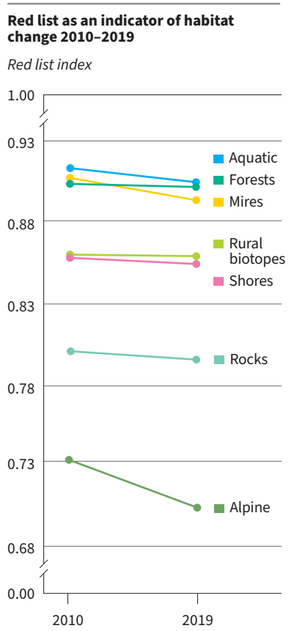


The proportion of endangered species in Finnish forests has remained unchanged

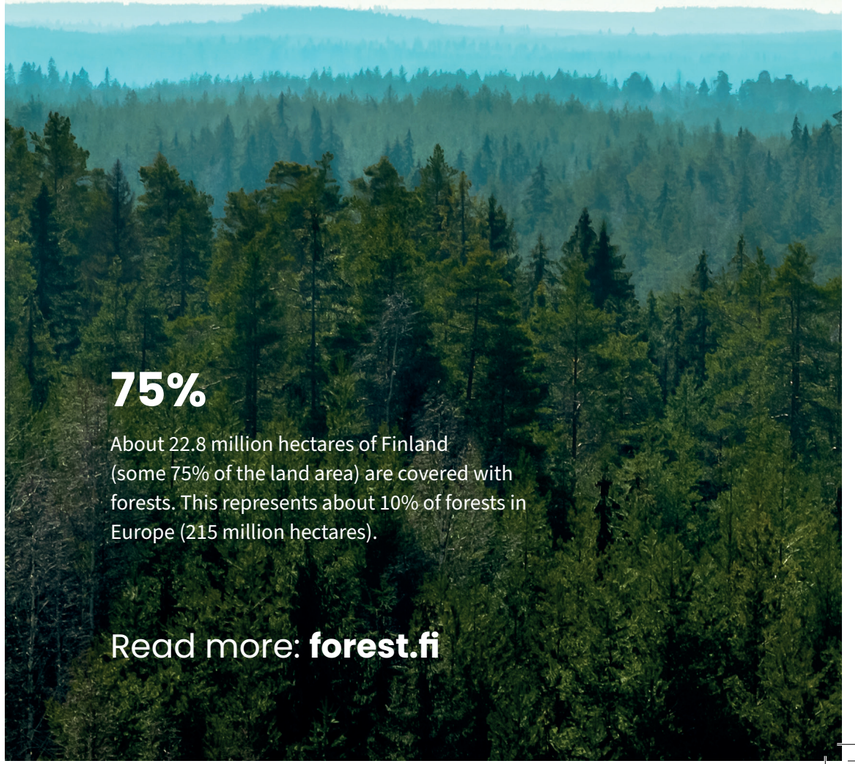
In Finnish forests, according to the Red List Index, the adverse development in the status of endangered species has levelled off. Nature management measures in forestry play an important role in this. Overall, changes in forests are slow and take time.

- The higher the index, the better the status of species in the habitat.
- If the index value is zero, all species in the habitat are extinct.
- If the value is 1, none of the species is considered endangered.
- There are plenty of forests in Finland and thus many species live in them. The share of forest species was clearly the largest of the species assessed (42.4%). On average, however, there are fewer endangered species in forests (9%) than in other habitats (11.9%).
- In forests, the proportion of endangered species has remained unchanged from ten years ago - this is also reflected in the index value, which is both high and stable.
- Forests are also affected by land use which forestry does not have an effect on.
- The endangered species are largely found on specific sites. For these, specific measures are tailored and used.

Source: 2019 Red List of Finnish Species



Sustainability of Finland's forests



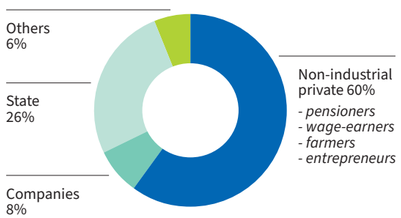
75%

About 22.8 million hectares of Finland (some 75% of the land area) are covered with forests. This represents about 10% of forests in Europe (215 million hectares).

Read more: **forest.fi**

Finland's forests are mainly owned by private people

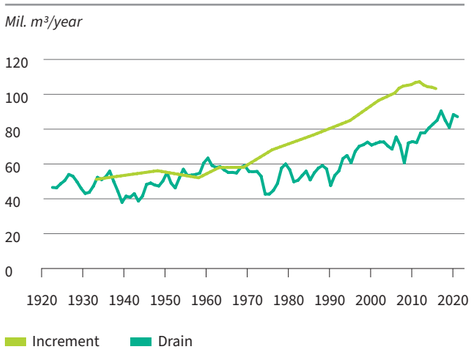
In Finland non-industrial private owners, ordinary families, own about 60% of the forests. The state owns about a quarter of the forests. About half of this consists of protected areas. Industry companies own less than 10%.



In a nation of 5.5 million people there are some 600,000 family forest owners. They all have different goals. This results in the forest cover being a mosaic of small, diverse plots.

Source: LUKE Natural Resources Institute Finland

Forests in Finland are growing more and more



Drain refers to the combination of harvesting and natural removal, which means natural death due to natural disasters, for example.

Despite increased use, Finnish forest growth has doubled in the last 50 years, mainly thanks to a combination of modern sustainable forestry practices.

Source: LUKE Natural Resources Institute Finland

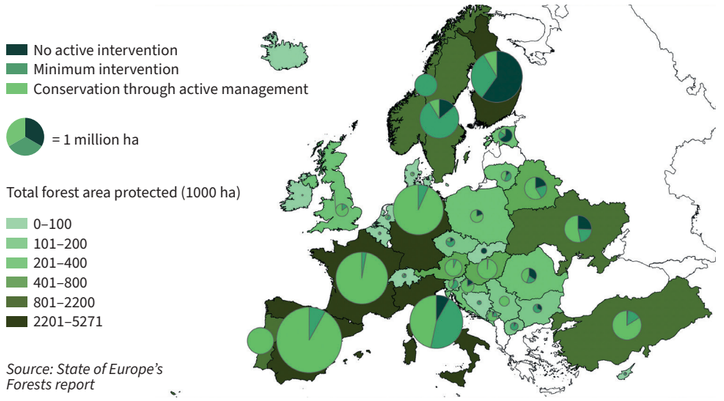
Thanks to active and timely forest management and silviculture, forest resources in Finnish forests have grown by 1 billion cubic metres in the last 50 years.

The total volume of wood in Finnish forests amounts to about 2.5 billion cubic metres. This amount of timber would make a 10-metre wide and 5-metre high wall around the globe.

Some 150,000,000 trees are planted and some 1.3 billion tree seeds are sown every year. However, over 80% of the trees in Finnish forests are naturally regenerated, so nature always complements regeneration by humans.

Forest biodiversity is maintained in various ways in Europe

Total protected forest area and share of the protected area for biodiversity by MCPFE class.



Source: State of Europe's Forests report

Protection of forest biodiversity in Finland, a two-fold strategy:

Strict forest protection has been implemented in Finland through statutory nature conservation programmes in particular. These are complemented by the Metso and Helmi programmes, based on protection that is voluntary for the forest owners and compensated for by the state. All in all, some 13% of the most valuable forest areas are excluded from commercial use.

Nature management complements protection measures. It conserves and enhances the biodiversity of commercial forests. Closer-to-nature forestry is everyday forestry since the late 1990s:

- natural structural features preserved and enhanced
- retention trees left
- decaying and dead wood, high stumps left
- aspen, other deciduous tree species promoted
- thickets for game left
- valuable habitats set aside
- habitats of threatened species protected
- buffer zones along waterways and other sensitive sites protected

The measures have proved effective and have led to positive changes. For example, the purpose of leaving retention trees on regeneration sites in commercial forests is, that in time, they will fall down and decay, increasing biodiversity and the amount of decaying wood. This is important for many endangered forest species, many birds, beetles and polypores.

Forestry is small-scaled – Finland is a mosaic of forests. The average size of a logging site is less than 2 hectares. About 2% of commercial forests are managed yearly, including thinning (2/3) and regeneration fellings (1/3).

Always after a regeneration felling, new forest is established on the site, as required by law. Forestry does not lead to land use change.

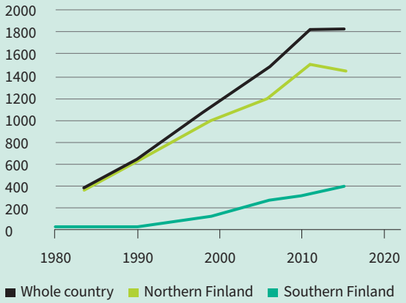
A hundred years of experience in scientific research pays off

Biodiversity and vitality of forests are the current focus of the monitoring the development of forest resources. According to the National Forest Inventories the vitality of forests remains good. The monitoring combines state-of-the-art satellite monitoring and on-the-ground observation, for example, from over 70,000 sample plots in Finnish forests. The system covers all land and all forests. Research data on the management of forest biodiversity is constantly updated.

Finland has monitored the development of forest resources for more than a 100 years. The National Forest Inventories (NFI) collect and measure a wealth of qualitative and quantitative data on forests, biodiversity and vitality.

The area of strictly protected forests in Finland is now the size of Belgium.

Forest protection has continued to increase in Finland



Source: LUKE Natural Resources Institute Finland

Fit-for-purpose forest management

There are some 14-15 methods of forest management in use, each tailored to fit the growing site, soil and vegetation. These include both periodic-cover and continuous-cover silviculture and felling methods and their different combinations. All methods favour leaving dead wood and retention trees in the forest.

Multiple layers of legislation and practices ensure sustainability of forestry:

- Agreements and conventions on a global level
- EU and domestic legislation
- Practices, guidelines and infrastructure
- Market based tools, certification

Sustainable use of forests – much more than wood production

Forests provide essential socio-economic benefits and ecosystem services. Everyman's Rights grant the universal right and opportunity for everyone to use forests for recreation, outdoor activities and collecting berries and mushrooms, as long as this causes no damage or disturbance to the forest owner.

Read more:
forest.fi