NATURE TOURISM, GAME MEAT, BERRIES AND MUSHROOMS ARE IMPORTANT NON-WOOD PRODUCTS

Forest-related services and the use and maintenance of non-wood products are an important component of forest management in Finland. Everyman's Rights grant the universal right and opportunity to everyone to use forests for recreation, outdoor activities and collecting berries and mushrooms, insofar

as this causes no damage or disturbance. Value of non-wood forest products accounts for 6% of the total value of forest products.

Wild berries, Wild mushrooms, purchased purchased by companies <1% **30%** by companies 1% Lichen, exports <1% Nonwood Moose etc. 7% goods Game birds 2% Reindeer meat 2% 70% from 88% Nature tourism

SHARE OF STRICTLY PROTECTED FORESTS LARGEST IN EUROPE

The area of strictly protected area accounts for 9% of Finland's total forest area. The total area of protected forests and forests under restricted use is 2,7 million hectares, or 12% of all forests. Dead wood has an important role in conserving forest biodiversity. The average volume of dead wood on productive forest land is 5.7 m³/hectare.



ALMOST A QUARTER OF THE VALUE OF FINLAND'S GOODS EXPORTS COMES FROM THE FOREST SECTOR

The forest industry products accounted for about 22% of Finland's total value of export of goods in 2016. The value added of the forest sector accounts for about 7.5 billion EUR.

Share of the GDP, %



THE FINNISH FOREST SECTOR AS CENTRAL PART OF A GROWING SUSTAINABLE BIOECONOMY

About half of Finland's bioeconomy is based on products and services of the forest sector. Currently, traditional forest industry products are being joined by a wide range of new wood-based bioproducts such as fibre packages, biofuels, composites, biopolymers, pharmaceuticals,

and cosmetics products.



PRINCIPAL MESSAGES

- The Finnish Government approved in 2015 the National Forest Strategy 2015-2025 with goals 1) creating a competitive operational environment for forest business, 2) renewing the forest sector, and its structure in order to diversify forest products, and 3) continuing to use forests according to the principles of sustainable forest management.
- The growing stock has increased over past 40 years by more than 40%. Over the same period, wood equivalent to the current tree volume, 2,3 billion m³, has been harvested and used for forest products.
- To safeguard biological diversity, close to nature management, by leaving dead wood and protecting key habitats have been undertaken in commercial forests. The area of protected forests has been tripled over the past 40 years, being now nearly 2,7 million hectares (12 % of the forest area).
- The annual net removal of carbon dioxide from atmosphere by forests is over 30 million CO₂ eq. tonnes. This amount compensate about 60% of the Finland's total emissions.
- Changing climate is estimated to increase forest growth, but the extreme weather phenomena, notably local storm and bark beetle damages will probably become more common in the future.
- The forest sector contributes over 4% of the GDP of Finland, and employ directly about 65 000 people. Annual value added in forest sector is 7.5 € billion. The most important market area of Finnish forest industry products is Europe.
- Wood is expected to be more in demand in the production of renewable forest energy, biofuels, in new bioeconomy products such as clothing, fiber packages, composites, pharmaceuticals, cosmetic and in wood construction.
- The new Finnish Bioeconomy Strategy aims to increase the bioeconomy output up to EUR 100 billion by 2025 and to create 100 000 new jobs. The strategic goals are: 1) a competitive operating environment for the bioeconomy, 2) new business from the bioeconomy, 3) a strong bioeconomy competence base, and 4) accessibility and sustainability of biomasses. The Finnish forest sector has as central part of Finnish Bioeconomy Strategy.

SOURCE

Natural Resources Institute Finland, Luke (2017). Statistics database. Statistics Finland (2017). Natural Resources Institute Finland, Luke (2016). 11th National Forest Inventory of Finland 2009–2013. Ministry of Agriculture and Forestry (2015). National Forest Strategy. Metla (2014). Statistical Yearbook of Forestry. Ministry of Agriculture and Forestry, Ministry of the Environment, Ministry of Finance

Ministry of Agriculture and Forestry, Ministry of the Environment, Ministry of Fi (2014). The Finnish Bioeconomy Strategy.

INSTITUTE FINLAND

AUTHORS Markus Lier, Kari T. Korhonen, Tarja Tuomainen Jari Viitanen & Antti Mutanen (Luke)

www.luke.fi



Finland's forests 2017

Based on FOREST EUROPE Criteria and Indicators of Sustainable Forest Management

Forest resourcesProductive functionsHealth and vitality

Biological diversityProtective forests

 Socio-economic functions

FINLAND IS THE MOST EXTENSIVE FOREST COVER COUNTRY IN EUROPE

About 22.8 million hectares (75%) is under forests in Finland, representing about 10% of the forest area in Europe (215 million ha). The forest area in Europe increased by 17.5 million ha of over the last 25 years – a result of afforestation and natural forest expansion.*



FINLAND'S FORESTS ARE MAINLY OWNED BY PRIVATE PEOPLE AND FAMILIES

Forest ownership category	Forest land area	Growing stock	Annual increment	Commercial roundwood removals
	Share (%)			
Private	60.9	64.7	72.6*	82.1
Companies	8.2	8.7	-	-
State	25.4	20.8	25.4*	17.9
Other	5.4	5.7	-	-

* State and companies data merged for increment and removals.



GROWING STOCK HAS STEADILY INCREASED OVER LAST 50 YEARS

According to the Finnish National Forest Inventory (NFI) the volume of growing stock has increased by more than 40% since 1971, being now 2,356 million m³. In Europe, over the last 25 years, the total growing stock in forests has increased by an average of 403 million m³ each year. The most common tree species in Finland are Scots pine (50% of growing stock volume forest land), Norway spruce (30%) and birches (17 %).

mill. m³ Growing stock volume on forest land, 1921-2013



ANNUAL INCREMENT OF GROWING STOCK IS HIGHER THAN FELLINGS

According to the NFI, the annual increment of growing stock was 106 million m^{3*}. The annual increment has exceeded the annual fellings by 30%. The amount of harvested volume since the mid-1970s equals to the current volume of the tree stock.

Annual increment of growing stock mill. m³ and annual drain (1935-2013) 110 Total increment 100 90 Drain 80 70 60 Pine 50 40 Spruce Increment by tree species 30 20 Broadleeves 10 1940 1960 1970 1980 1990 2000 2010 1950 * in the years between 2004 and 2012

FINLAND'S FORESTS ARE A CONSIDERABLE CARBON SINK

The annual net sink of forests varies annually mainly due to harvesting but the average sink has been about 38 million CO₂ equivalent tonnes over the last 10 years. Concurrently the wood products gave a net sink of 2 million tonnes of CO₂. Recently the forest sink has covered about 60% of the Finland's total emissions excluding the emissions and removals of land use and forestry.



FINLAND PROMOTES WOOD AS BUILDING MATERIAL

In Finland, wood accounts for about 40% of all building materials. Nearly 80% of detached houses have a wooden frame. Wood as renewable raw material provides a long-term carbon sequestration potential, and thus is promoted in Finland for use in construction, above all for building blocks of flats in wood.



WOOD-BASED FUELS ACCOUNT FOR 25% OF TOTAL ENERGY CONSUMPTION

Using wood for energy increases self-sufficiency in energy production promotes good silvicultural practices and reduces the use of fossil fuels. Different residues and side streams – such as black liquor, sawdust, bark, woodchips are widely used for the production of heat and electricity. Nowadays sawdust and woodchips are also used for the production of transport biofuels or other bioliquids. The share of wood-based fuels of all renewable energy sources accounted for over 87%.

