



### Newsletter

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Finland's biocapacity is larger than its consumption of natural resources - The forest industry produces its ecological footprint sustainably

Monitoring and feedback ensure the high quality of natural management of forests

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# Finland's biocapacity is larger than its consumption of natural resources - The forest industry produces its ecological footprint sustainably

Finns' ecological footprint is estimated to be the third biggest in the world. The ecological footprint only measures the use of renewable natural resources and consequently Finland, which processes and exports large amounts of wood and paper products, ranks high. Renewable resources must be utilized as sustainably as possible. This is one of the strengths of the Finnish forest industry, which uses the latest technology and expertise. The Finnish forest industry's products are a sustainable choice.

The ecological footprint is a worthy effort to measure people's impact on their environment. The method needs to be developed to suit its task better, however. According to the principle of sustainable development, the focus of consumption should be shifted from non-renewable resources to renewable resources, but the ecological footprint does not measure this.

In the calculation method, comparing the biological footprint and biocapacity provides a better picture of the sustainable use of resources. Finland is one of the few countries whose biocapacity exceeds its consumption of natural resources. Finnish forests' biocapacity is the highest in Europe: nearly 11 global hectares per person. Each Finn uses slightly over 2 global hectares of this, so forests' ecological surplus is about 8.5 global hectares per person.

#### Finland's forest resources grow more than we use them

Finland's, as well as Europe's forests are growing faster than they are harvested. Forests cover about one-third of Europe and a full three-fourths of Finland's land area. Wood is a strategically important natural resource and raw material for Europe.

Finland's forests are used in a sustainable way. The annual increment is about 97 million cubic metres, and only a little over half this amount is harvested. According to studies conducted by the Finnish Forest Research Institute, harvesting could sustainably be increased from the present 55 million cubic metres to 66 million cubic metres a year.

The Finnish forest industry uses renewable raw material carefully to meet the changing needs of environmentally conscious consumers. Wood materials are used almost 100% as fibre, wood products and bioenergy. The forest industry produces about 80% of Finland's bioenergy, and in this area we are on the cutting edge in Europe. Wood-based



products can be recycled and eventually converted into energy. Over 70% of the paper consumed in Finland is recovered for recycling.

#### Additional information:

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### Monitoring and feedback ensure the high quality of natural management of forests

In Finland, use and natural management of forests are monitored and supervised annually on all forest owners' lands. This oversight has led to results. The quality of natural management has improved markedly with the aid of feedback and training in the last ten years when there has been a uniform method for monitoring. For the Finnish forest industry, natural management of forests and monitoring its quality are a part of everyday forest management work.

Over 90% of Finnish forests are commercial. Therefore, these forests and their natural management have a great meaning for the biodiversity of the forest environment. Indicators of the quality of natural management are, for example, the incidence of valuable nature areas and their preservation in felling operations, the volume and quality of growing stock preserved for the sake of biodiversity as well as the standard of water conservation, soil preparation and landscape management.

Natural management of forests begins when a forest management plan is being drafted; this work includes the charting of an estate's forests and the setting of objectives and recommended measures for timber production, conservation and other forest use. Good planning fosters success in the implementation of practical natural management measures.

A uniform method has been used to monitor the standard of natural management in the commercial forests since 1995. Regional forestry centres conduct practical, on-site monitoring work all over Finland. Felling and forest regeneration is evaluated at about 1,200 randomly selected sites each year. In addition, 200-300 felling sites that contain valuable habitats are inspected in privately owned forests annually. The Forestry Development Centre Tapio reports annually timber buying and harvesting companies how they have succeeded in natural management work. Reports are based on evaluations compiled by forestry centres.



#### Quality of natural management has improved clearly

Comparing the 1995 and 2005 evaluations of natural management in commercial forests reveals success and positive developments. A decade ago, the characteristics of nature areas in forests were either unchanged or almost unchanged in 73 out of a hundred locations; last year, this ratio had improved to 94 out of a hundred. In the first evaluation, the quality of retention trees was either excellent or good in 66 and, last year, in 92 locations out of a hundred. In 1995, water conservation measures succeeded either excellently or well in 67% and, last year, in 94% of evaluated locations.

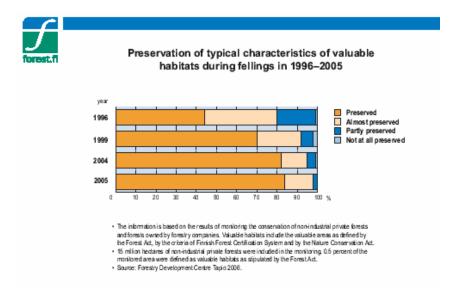


Figure: Preservation of typical characteristics of valuable habitats during fellings in 1996–2005

**Martti Kuusinen**, an expert on the monitoring of natural management in commercial forests from the Forestry Development Centre Tapio, reckons the positive developments are partly thanks to the fact that timber supplying companies have been receiving feedback in the annual reports for the quality of their natural management efforts for 11 years already. Challenges to further development of natural management include, for example, increasing the amount of dead wood and concentrating retention trees in felling areas.

#### Natural management is part of everyday life for forest machine operators

Natural management of the forest environment has become an established feature of all forestry activities. In addition to external audits, the forest companies' own auditors monitors the quality of their natural management measures constantly. Certified quality and environment management systems provide guidelines for this work and tools for tracking its results. Feedback for the work is also received directly from forest owners.



Forest certification schemes place requirements on the quality of natural management as well. About 95% of Finnish forests have been certified.

The expertise and know-how of thousands of people who participate in harvesting and forest machine operators in particular forms the totality of natural management. Responsibility is shifting to machine operators to an ever-greater extent. Thus, wood procurement and forest industry companies have been providing forest machine operators with plenty of training in issues associated with the forest environment. An extensive training programme was launched at the end of the previous decade and it has yielded results: the quality of natural management has improved greatly.

Almost all forestry professionals involved with the planning or implementing of felling operations have completed a diploma course in natural management. The Forestry Development Centre Tapio coordinates course organising. Forest industry companies always recommend that their forest machine and harvester contractors complete a natural management diploma course.

Kuusinen thinks Finland's systematic monitoring of the quality of natural management in commercial forests is quite unique internationally. Audits and reports by independent third parties - forestry centres and the Forestry Development Centre Tapio - increase the reliability of the system.

#### **Further information:**

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The sustainable use of renewable natural resources supports growth, employment, welfare and sustainable development in Europe. The forest-based sector is a significant European branch with a key role in promoting sustainable development. The sector wants to make the sustainable use of renewable natural resources one of the themes of the Finnish Presidency of the EU.

The Finnish Forest Industries Federation represents companies in the forest-based and related industries in Finland. Its task is to promote the competitiveness and profitability of the paper and wood products industries by strengthening their operating conditions and positive image in Finland and abroad. The organization's membership covers the entire pulp, paper and paperboard industries and about 80% of the wood products industry in Finland.