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4. Culture and Traditions
5. Forest-Related Industries
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6. Finnish Forestry General Information
Appendix
SUMMARY

FINNISH SUSTAINABLE FORESTS

LAWS AND REGULATIONS

CERTIFIED FORESTS AND VALUE CHAINS

CULTURE AND TRADITIONS

SUSTAINABLE PLANTING AND HARVESTING BALANCE
1. CERTIFIED FORESTS AND INDUSTRY VALUE CHAINS

Certified Forests and Transparent Value Chains

Around 90% of Finnish forests (10% globally) for commercial use are PEFC certified, and 8% FSC certified. The PEFC certification requires economical, ecological and social responsibility. Since 1920, every 5-10 years the Finnish forests are evaluated on a National level.

A typical timber trade involves a private person selling a logging right to a company. In this right, among others the size, quality and value of the area, are determined.

Forest owners have to declare a Forest Use Declarations to the Forest Centre before selling the forest. Together with the Logging rights, they form a basis for transparent forest industry practices in Finland.

Applying for PEFC

Most of Finland’s PEFC certified forests are certified through a regional group certification process (instead of individual)

The process starts with an application with preliminary information, and continues with a first meeting before the fieldvisits. After the inspection, there is an end discussion, which can lead to either the certificate or an improvement plan.

The certificate is given for a five-year period, with yearly inspections. Inspections are carried out by independent, international companies.

The PEFC quality requirements in Finland are attached as Appendix item (A)
1.1. WOOD FLOW IN FINLAND

**Unit: Million m$^3$**

Forest stock growth: 27 mill.m$^3$ (2016)

Finland’s three largest pulp and paper producers hold the Chain of Custody (CoC) certificate, which tracks the whole supply chain of the wood flow.

Appendix (B) and (C) show the export values by categories for pulp, paper and wood product industries.
2. SUSTAINABLE PLANTING AND HARVESTING BALANCE

Finnish Forests are Growing

Finnish forests are now growing faster than ever. Annual growth is around 110 million cubic meters, with use at around 65 million. This means there is room for 20% additional sustainable production.

The state financially subsidizes sustainable forest management undertaken by private forest owners.

The destruction of forests was prohibited in Finland by the very first Forest Act in 1886.

Appendix item (D) describes regulations regarding logging and maintaining a sustainable balance.
# 3. MAIN LAWS AND REGULATIONS REGARDING SUSTAINABLE FORESTRY

The main laws and regulations can be divided into four categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
</table>
| **1. Management and Use of Forests** | Forest Act  
Wilderness Act  
Act on Trade in Forest Reproductive Material  
The Forest Damages Prevention Act |
| **2. Finance**            | Act on the Financing of Sustainable Forestry                               |
| **3. Nature Conservation**| Nature Conservation Act                                                      |
| **4. EU-level**           | FLEGT Forest Law Enforcement, Government and Trade                          |
3. MAIN LAWS AND REGULATIONS:

Forest Act (since 1886)

The aim of this Act is to:

Promote economically, ecologically and socially sustainable management and utilization of forests in order that the forests produce a good output in a sustainable way while their biological diversity is being preserved.

Obliges every forest owner to declare a Forest Use Declaration notice when ever planning on significant actions on their forest.

Includes laws about among others harvesting, regeneration, biodiversity and protected forest.
3. MAIN LAWS AND REGULATIONS:

Nature conservation Act

The aim of this Act is to:

Maintain biological diversity
Conserve the beauty and scenic values of nature
Promote the sustainable use of natural resources and the natural environment
Promote awareness and general interest in nature
Promote scientific research
3. MAIN LAWS AND REGULATIONS:

EU FLEGT Forest Law Enforcement, Government and Trade

The aim of this Act is to:

European Union initiative to address illegal logging and the social, economic and environmental harm it causes

The plan includes activities in the EU and in tropical countries that export timber and timber products to the EU. These measures include a regulation that prohibits EU businesses from importing or trading illegal timber, and bilateral trade agreements with timber-exporting countries
4. CULTURE AND TRADITIONS

Forests are Highly Valued by Finns

Finland has a rich and long history in utilizing its forest resources. Forests have been a key component and still have an important role in the Finnish economy and society.

The **Everyman’s Right** plays a significant role in people’s right to roam, the recreational use of natural areas, nature-based tourism, and the collection of natural products.

Private individuals and families own around 60% of forests in Finland.

About 80% of forest owners are members of the local Forestry Management Associations, which provide services for sustainable forest planning.

89% of Finns think that preserving the natural biodiversity of forests is more important than increasing logging.
5. FOREST-RELATED INDUSTRIES
5.1. NEW DIGITAL SOLUTIONS

**Estimate: Yearly Savings of 100 mill€ with Digital Solutions**

As of March 2018 with the renewed Act of Forest Centre’s Forest Information System, open national data about the forest usage, forest types and soil will become available electronically for anyone’s view.

This data allows for new digital solutions in forestry management, such as 3D forest mapping and planning, intelligent forecasting and region-wide forest visualizations.

Now and in the near future, new digital innovations will form the basis of sustainable forest management, and Finnish large forest industry groups are actively testing new solutions.
5.2. FINNISH WOOD-BASED CONSTRUCTION

Finland has an Ecosystem for Wood-based Building

In Finland, wood accounts for about 40% of all building materials. Since the 1990s, wood-based construction has undergone intense development in Finland. Development efforts have particularly focused on large-scale timber construction.

In 2017, approximately 5000 new apartments in multi-storey timber-based buildings are constructed in Finland. Finland has around 170 industrial sawmills and 250 wooden and loghouse manufacturers.

In particular, CLT (cross-laminated timber) and LVL (laminated veneer lumber) technologies have made a breakthrough. Finnish wood-based construction aims to combine high-quality architecture and design with environmentally aware, energy-efficient construction that employs intelligent building technology.
5.3. FOREST BIOECONOMY

Forest Plays an Important Role in the Bioeconomy Strategy

The new Finnish Bioeconomy Strategy aims to increase the bioeconomy output up to EUR 100 billion by 2025. The forest sector has a key role in this goal.

New wood-based bioproducts include fibre packages, biofuels, composites, biopolymers, pharmaceuticals, and cosmetics products.

Wood-based fuels account already for 25% of total energy consumption in Finland.

Research institutes are collaborating with companies to find new ways to use wood (Right: Fashion brand Marimekko’s birch-fibre textile in collaboration with Aalto University)
6. FINNISH FORESTRY GENERAL INFORMATION

Finland is Europe’s most densely forested country; its more than 20 million forest hectares make up 14% of Europe's total forest area.

The forest sector contributes over 4% of the GDP of Finland, and employs directly about 65,000 people. The most important market area of Finnish forest industry products is Europe.

The most common and economically important trees are spruce, pine, and birch.

Finland has the largest share of protected forests in the Europe (9% of total forest area)

Majority of the Finnish forests are privately-owned (see graph)
6. FINNISH FORESTRY GENERAL INFORMATION

Gross value of Finnish forest industries

<table>
<thead>
<tr>
<th>Year</th>
<th>Wood products</th>
<th>Pulp and paper industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>15.0</td>
<td>9.0</td>
</tr>
<tr>
<td>2008</td>
<td>14.5</td>
<td>8.5</td>
</tr>
<tr>
<td>2009</td>
<td>14.0</td>
<td>8.0</td>
</tr>
<tr>
<td>2010</td>
<td>13.5</td>
<td>7.5</td>
</tr>
<tr>
<td>2011</td>
<td>13.0</td>
<td>7.0</td>
</tr>
<tr>
<td>2012</td>
<td>12.5</td>
<td>6.5</td>
</tr>
<tr>
<td>2013</td>
<td>12.0</td>
<td>6.0</td>
</tr>
<tr>
<td>2014</td>
<td>11.5</td>
<td>5.5</td>
</tr>
<tr>
<td>2015</td>
<td>11.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2016</td>
<td>10.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

2016

<table>
<thead>
<tr>
<th>Industry</th>
<th>Bn EUR</th>
<th>%change from previous yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood products</td>
<td>7.2</td>
<td>4.3%</td>
</tr>
<tr>
<td>incl furniture</td>
<td>11.5</td>
<td>4.3%</td>
</tr>
<tr>
<td>Pulp and paper</td>
<td>13.1</td>
<td>-5.7%</td>
</tr>
<tr>
<td>industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest industry</td>
<td>20.3</td>
<td>-2.4%</td>
</tr>
<tr>
<td>incl furniture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX (A): CRITERIA FOR PEFC FOREST CERTIFICATION IN FINLAND

Criterion 1: Requirements enacted by legislation shall be complied with
Criterion 2: Forest stand shall be preserved as a carbon sink
Criterion 3: Forest use declaration shall demonstrate legality of harvesting and determine environmental concerns
Criterion 4: Silviculture and forest use shall be based on the effective use of up-to-date information on forest resources.
Criterion 5: The quality of forestry operations shall be ensured
Criterion 6: Health of the stand shall be attended
Criterion 7: Sustainable methods shall be used in energy wood harvesting
Criterion 8: Seedling stands shall be timely tended
Criterion 9: Conservation values of protected areas shall be safeguarded
Criterion 10: Typical features of valuable habitats shall be preserved
Criterion 11: Biodiversity of peatlands shall be preserved
Criterion 12: The known habitats of endangered species shall be safeguarded
Criterion 13: Biodiversity of forest species dependent of forest fires shall be promoted with prescribed burning
Criterion 14: Retention trees and decaying tree stems shall be left on site in forestry operations
Criterion 15: Finnish native tree species shall be used in forest regeneration
Criterion 16: Genetically modified seed and plant materials shall not be used
Criterion 17: All operations taking place close to watercourses and small water bodies shall safeguard water protection
Criterion 18: Water protection shall be safeguarded in drainage maintenance sites and drainage mounding sites
Criterion 19: In forestry operations the quality of groundwater shall be safeguarded
Criterion 20: Plant protection products shall be used responsibly
Criterion 21: Competence of employees shall be ensured
Criterion 22: Work safety, workplace well-being and equal opportunities at work shall be attended
Criterion 23: Statutory obligations of employers shall be adhered to
Criterion 24: Good practices shall be adhered to in contracting forest services
Criterion 25: The competences of forest owners shall be diversely promoted
Criterion 26: Knowledge of forestry and interaction with nature among children and adolescents shall be promoted
Criterion 27: Everyman’s rights shall be safeguarded
Criterion 28: No waste or litter shall be left in forests after forestry operations
Criterion 29: Preconditions for multipurpose use of forests shall be promoted
Criterion 30: Archeological sites shall be preserved
Criterion 31: Operating conditions for reindeer herding shall be secured
Criterion 32: Preconditions for Sámi culture and traditional livelihoods shall be safeguarded in Sámi Homelands in accordance with Sámi definition of sustainable development
APPENDIX (B): EXPORTS OF PAPER AND PULP

Development of paper, board and converted products export value

<table>
<thead>
<tr>
<th>Year</th>
<th>Converted products</th>
<th>Paperboard</th>
<th>Other paper</th>
<th>Printing &amp; writing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
<td>5.3</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>5.2</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>5.3</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>5.2</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>5.3</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>5.2</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>5.3</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>5.2</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>5.3</td>
<td>0.6</td>
<td>2.1</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Value of exports, bill. Euro
- Printing & writing: 3.6
- Other paper: 0.6
- Paperboard: 2.4
- Converted products: 0.4
- Total: 7.0

Change from prev. Year
- Printing & writing: -8.6%
- Other paper: -4.8%
- Paperboard: 4.1%
- Converted products: 2.5%
- Total: -3.6%

Pulp exports, 1000 tonnes
- 2016: 3,160
- 2015: 3,100

% change: 8.4%

Export value of pulp, mill. EUR
- 2016: 1,660
- 2015: 1,710

% change: -3.1%

Development of volume and value of chemical pulp exports
APPENDIX (C): EXPORTS OF THE WOOD PRODUCTS BY CATEGORIES

<table>
<thead>
<tr>
<th>Year</th>
<th>Billion Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2.2</td>
</tr>
<tr>
<td>2013</td>
<td>2.3</td>
</tr>
<tr>
<td>2014</td>
<td>2.4</td>
</tr>
<tr>
<td>2015</td>
<td>2.5</td>
</tr>
<tr>
<td>2016</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Chg from prev. year: 4%  
Export value of wood products* industry: 2.7  
*incl. Furniture
Any logging undergone in Finland has to be Declared to the Forest Centre. The Finnish Forest Centre checks the legitimacy of each declaration.

According to the Finnish Forest Act (1093/1996), intermediate fellings must be done in a way which leaves enough growing wood equally distributed. Factors such as geographical location, execution method and the mean top height are taken into consideration when evaluating the intermediate fellings.

Regeneration fellings lead into an obligation to regenerate the forest. The regeneration felling is finished when an open area over 0,3 hectare is generated. The obligation to regenerate the forest is finished when a seedling stand is grown, depending on the geographical location, at the latest within 10-25 years after the regeneration felling. The seedling stand is approved after it is thick enough, equally distributed with an average height of 0,5 meters and there are no other threats (such as other plants).

According to the Forest Act 10§, in significant natural habitats only preserving acts, such as selection cuttings, can be done. In these acts the specific water environment, forestry, old trees, dead and decayed trees, among with the soil and flora need to be taken into account.

If following the regulations of the Forest Act lead into a financial, or other kind of, loss which is not insignificant, the Forest Centre must provide an exemption to provide the right to act in a way which would decrease the financial loss. Alternatively, the forest owner is given a grant from the government’s funds to cover the financial losses.