ResponSibility
At the Heart
Of Developing
The Bio-economy

Finnish forest industry commitments
to environmental and responsibility issues
RESPONSIBILITY REQUIRES ACTION

The Finnish forest industry has been actively developing its conduct in environmental and responsibility issues for many decades. We have learned to utilise raw materials, waste and energy efficiently and to produce more out of less.

We are proud of the fact that the Finnish forest industry today serves as a paragon for efficient environmental action. This should not be taken for granted, as it is the result of systematic and diligent work. We have also cooperated closely with legislators and other stakeholder groups to improve our conduct.

The forest industry has done a lot, but there’s still room for improvement and difficult problems to be resolved. This has spurred Finnish forest industry companies to agree on new environmental and responsibility commitments up to 2020. We want to develop further, improve the standard of our conduct and to shoulder our responsibility.

The forest industry is the pioneer of bioeconomy. We produce ecologically sustainable products, which are made of renewable and recyclable raw materials, to the market and thus help reduce society’s dependence on depleting natural resources. In the last resort, we consumers decide, through our personal choices, whether or not consumption is steered towards more sustainable solutions.
EcoLogically Sustainable Products Responsibly

People’s environmental awareness and requirements as consumers have increased in the 2000s. The wellbeing of our planet is a prerequisite for a good life. People want to live their lives in a way that minimises the load on the environment. They choose products, which are made from renewable natural resources and can be recycled after use. They favour ecological alternatives in housing and transport. Global climate, energy and environmental challenges call for similar choices. The forest industry responds to these demands by offering ecologically sustainable products that are manufactured from a renewable and recyclable raw material. The most traditional industry products are wood products, paper, paperboard, pulp and bioenergy. More recent additions to the product range include various biomaterials such as composites, biopolymers and biochemicals as well as wood-derived biofuels, which will soon enter the market. End-use locations range all the way from construction and decoration to packaging, communications, transport and all kinds of industrial manufacture.

The forest industry shoulders the responsibility for the environmental impact of its operations, the efficient and ecological use of energy as well as for the promotion of natural resource use and conservation. This is vital for our operations.

We operate responsibly both in Finland and internationally, and require our cooperation partners throughout the entire value chain to do so as well. The responsibility aspect is considered from the forest to production and all the way to the transport and eventual recycling of end products. The forest industry has been active in its promotion of, for example, the utilisation of forest certification schemes and will continue this work in the future in Finland and abroad. We make sure to know where the raw material we use comes from and that its origins are lawful. Wood raw material can be traced from the forest all the way to products.
Using a renewable natural resource creates a good starting point for sustainable business operations and prosperity. No less than three-quarters of Finland’s land area is covered by forest and annual forest growth exceeds consumption every year. This makes it possible to increase sustainable forest use. Finnish forests are managed in accordance with the principles of socially, economically and ecologically sustainable forestry. In Finland, forest certification is more widespread than in any other country in the world.

Each year, the forests of Finland bind more and more atmospheric carbon dioxide. Forest biomass, such as wood, forest litter and soil, binds almost as much carbon dioxide as is present in the atmosphere. Forest regeneration and management ensures that carbon dioxide will continue to be sunk into forests. The ability of Finnish forests to bind carbon dioxide has almost doubled over the last two decades. Carbon dioxide remains stored also in the products of the forest industry.

The forest industry has made considerable investments into safeguarding the biodiversity of commercial forests. The valuable habitats of commercial forests have been charted and, as a rule, they are excluded from forest management measures. Furthermore, retention trees and decaying wood are left on logging sites, in addition to which controlled burnings of retention tree groups or entire logging areas are performed to conserve and increase structural characteristics that are typical of natural-state forests. The conservation rate of Finnish forests stands at about 10%, which is one of the highest figures in all of Europe.
Consideration of the environmental impact of our operations is important to us. Accordingly, this impact has reduced significantly over the last few decades. Emissions to air and water have fallen to a fraction of earlier levels while production has increased at the same time. This has been enabled by more advanced production processes and the increased effectiveness of emission cleaning. For example, the industry has reduced its carbon dioxide emissions by 30% in 20 years, even though the volume of production has increased. We have also managed to substantially enhance the efficiency of water use – to the extent that a litre of water will today circulate up to 15 times at the factory. It is not possible to manufacture forest industry products without water. We utilise 0.2% of Finland’s available water resources. After use and purification, water is returned to the natural cycle.

Forest industry emissions have reduced substantially

Reduction of emissions relative to forest industry production volumes over the past two decades.
The manufacture of our products utilises renewable energy, which is generated as a by-product of production. Energy generated by forest industry mills is also delivered to nearby buildings. It is thus no wonder that the forest industry is called a bioenergy driver. The forest industry has invested more than €1 billion in energy efficiency and bioenergy power plants in the 2000s.

The EU has imposed strict climate targets for reducing greenhouse gas emissions and these require action in Finland as well. The forest industry plays a central role in the drive to meet these requirements – our 70% share of overall renewable energy production makes us by far the biggest producer of renewable energy in Finland.

Diverse use of a renewable and recyclable raw material reduces the need to consume depleting natural resources like oil. The forest industry is taking Finland forward towards a lower-carbon society.
Improvements in material efficiency have reduced the amount of landfill waste. The amount of material sent to landfills accounts for less than 0.3% of the total volume of raw materials received by mills. Finland’s recycling rate for finished products like paper and paperboard is likewise among the highest in the world.

We take care to utilise all raw materials prudently following a principle according to which the waste or by-product of one process is the raw material for the next process. We use our production sidestreams as raw material for new products or to generate energy. Waste is utilised with increasing effectiveness, which reduces the amount of landfill waste. Almost 90% of the forest industry’s waste is recycled as materials or used for energy production.

The utilisation of waste has helped reduce the amount of landfill waste per tonne of manufactured goods by 89% since 1992.

The forest industry has been developing its environment- and responsibility-related conduct systematically. This development work continues, as there’s still room for improvement and challenges to resolve. Our expertise has never been higher, and our will to develop is strong. Success requires cooperation and dialogue between various actors, a mutual willingness to listen is essential. This is the best way to take matters forward and to improve our conduct.
The forest industry of Finland wants to keep acting responsibly and to improve the standard of its operations also in the future. In 2011, the forest industry commenced a discussion on how to voluntarily develop our conduct related to environmental and responsibility questions. The outcome of this process include the industry’s shared environmental and responsibility commitments up to 2020.

**ENVIRONMENT**

Environmental impact management, energy and material efficiency

- We respond to the needs of individuals and society and the global climate, energy and environmental challenges in a sustainable manner by providing products and solutions based on a renewable and recyclable raw material.
- Our actions are equally responsible on the national and international level, and we require responsibility from our cooperation partners throughout the value chain.
- We disclose and report openly on environmental and responsibility issues and conduct an active dialogue with key stakeholder groups.

**NATURAL RESOURCES**

Promoting use and conservation

- We verify the lawful origins of the wood we consume and promote the use of forest certification systems. The aim is to ensure that at least 80% of the wood and fibre used by the forest industry is certified by 2020. In addition, we promote responsibility in the procurement chains of all of our raw materials.
- We promote the utilisation of a diverse range of different forest management and voluntary conservation measures to develop the biodiversity of forest environments. Our goal is to improve the living conditions of threatened species so that a smaller share of the species, which were identified as being threatened in 2010, is still under threat in 2020. We are committed to the sustainable and responsible use and protection of mires and peatlands.
- The wood consumption of Finnish forest industry corporations does not globally cause rainforest deforestation nor does our corporate land use compete with food production.

**SOCIETY**

Provider of innovative and ecologically sustainable products and solutions

- The share of our climate-positive renewable energy will be increased and we will continue to be Finland’s most significant producer of renewable energy. We are committed to the continuous improvement of energy efficiency and will help attain the climate obligations that have been set for Finland.
- Based on voluntary measures and local conditions, we continue improving water-use efficiency and achieve systematic reductions in waste water load. The target is to reduce the chemical oxygen demand (COD) of waste waters from the production facilities by 10% per tonne of output by 2020 (1). Furthermore, we commit to doing our part to reduce the suspended solids and nutrient loading in waterbodies caused by forestry.
- Our production operations utilise raw materials effectively. We actively study new opportunities for utilizing the side streams of production and continue to develop industrial symbiosis, where one party’s waste is another’s raw material. Our aim is to achieve a 30% reduction in the amount of waste sent to landfills by 2020 (1).
- We reduce the environmental impact of our products throughout their lifecycle. In the wood product industry we extend the lifespan of our climate-positive products and develop product recyclability. We promote paper and paperboard recycling in all market areas.

1) Year of comparison 2011
The Finnish forest industry wants to shoulder its responsibility and will continue to improve its conduct in environment and responsibility-related issues. Finnish forest industry companies have voluntarily agreed on shared environmental and responsibility commitments up to 2020.

The forest industry responds to society’s needs sustainably and contributes to resolving global climate, energy and environmental challenges. Forest industry’s products and solutions, which are based on a renewable and recyclable material, can reduce consumption of depleting natural resources.