

Finnish Forestry

From the periphery to the centre of the European forestry

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ABSTRACT

The evolution of the exploitation of forests in Finland fits into the logics of state and private firms. It is also characterized by the importance of technology transfers. They accompany major evolutions in this crucial activity for the country, and put Finland at the crossroads of multiple influences and actors' initiatives. Forestry is an essential activity for the country, which is one of the most forested countries in Europe, with trees covering two-thirds of its area. Today it plays a key role in many European projects and in arenas like Forest Europe, a discussion platform on the sustainable development of forests.



Logging in Finland in early 1900s. Museum of Central Finland (Keski-Suomen museo).

In the course of its history, Finland has achieved a balance between intensive industrial use of forests and sustainability. Finnish forestry developed due to regular transfers of expertise from European countries (such as Germany and Sweden) and was a source of knowledge for others (primarily the USSR since the 1950s). Finnish forestry showcases how intense technology and knowledge circulations during the last two centuries could turn the geographical periphery into the technical centre of Europe in some fields of activity.

Until the 19th century, as in many European countries, forests in Finland were heavily exploited. Key purposes of

wood use were tar, building materials, and fuel used not only inside Finland but exported to Sweden and other countries. Later, while shifting gradually to an industrial society, Finland increasingly required more wood for sawmilling and pulp and paper production. In the late 19th century, most of the technology used for wood harvesting and processing came from Norway. Among the Norwegians who launched business activities in Finland was Hans Gutzeit, who established a sawmill in Kotka in the 1870s, from which the famous Enso Gutzeit company originated.

Another key figure in the mid-19th century was Anton Blomqvist, now considered the father of Finnish forestry. Born in Helsinki, he obtained his degree at the Royal Saxon Academy of Forestry in German Tharandt, one of the most attractive places for international students interested in forestry at the time. From Germany, Blomqvist transferred forestry organizational methods to Finland, as well as some new species. Thanks to the experience he had acquired abroad, he founded the first professional institution to train forest officers in Finland: the Evo College forest school (1862). Blomqvist often expressed anxiety about the future of forests, particularly in densely populated regions.

His concerns were assuaged somewhat by a state act in 1886, encouraging both state and private holders to regenerate their forests. Documents limiting the cutting down of trees had been issued earlier in the mid-18th century, but covered limited types of forests without requiring that the forest owners plant new trees to replace their logging activities. In 1859, the Administration of Forests, the institute of forest management, was established to manage state land and supervise private forestry. More than a century later, in the 1980s, the Institute would become responsible for nature conservation as part of the Ministry of the Environment. Also, in 1907 the Finnish forest management society (Tapio) was founded as the first non-governmental organization to assist with forestry management and the rational use of forest resources. At the time, many private forest owners recognized the danger of exhaustive tree-cutting, and realized that the intensive exploitation of forests might cause significant damage to the industry through the complete depletion of forest resources. Over the following years, Tapio conducted activities aimed at improving forest management and increasing the number of experts in the field.

In the age of rapid industrialization during the 20th century, Finnish forestry faced increasing demands for wood used by pulp and paper production, as well as military, food-manufacturing and the textile industry, among others. Prior to World War Two many Finnish companies started diversifying their activities. During the war, wood became extremely important for its role in producing consumer goods. Because of a shortage of many basic materials, wood was used not only for producing paper and cardboard, but also in manufacturing clothes, curtains, and other products. "The tree will rescue us from the crisis" was a common phrase in the war years.

The postwar years were a period of active technological transfer to Finnish forestry and the forest industry from Sweden, Canada, the USA, and West Germany. It was also an era of homegrown innovations for the industrial use and management of forests. Finland increasingly became a producer of specific knowledge complementing imported technologies. Thus, practical forestry was advanced through technology: lumber companies introduced motor-saws to replace hand-saws and axes, and used tractors instead of horses. An increase in forest railways and highways construction, along with rafting timber, accelerated wood transportation. At the same time mechanization had significant social consequences, in terms of increasing the rate of unemployment. These processes were crucial, but in some places old methods and technologies disappeared more slowly.

Circulations also developed Eastward. During the Cold War, Finnish foresters exported their experience in forest management and modern technologies to the USSR, acting as a mediator between East and West. However, 1944 caused Finland a significant loss of a resource. The USSR annexed the vast territory of the Karelian Isthmus and Ladoga Karelia, sometimes called the Finnish Green Ruhr. The territory comprised over 12 percent of all Finnish forests and concentrated more than 70 sawmills and 20 percent of Finland's capacity in the cellulose production. As a result of war reparations, Finland had to deliver forest industry materials and techniques to the USSR. These

reparations were completed in 1952. Paradoxically they stimulated industrial production and were a premise for technology transfers from Finland to the USSR. Due to specific post-war political relations, usually described by the governments of both countries as “good neighbourly relations”, Finland and the USSR developed several transfer channels. In 1955, they signed an agreement on scientific and technical cooperation, primarily oriented toward the transfer of technology from Finnish research and production to the Soviet Union. In the forestry field, which was among central areas of cooperation, it implied visits of specialists, mutual projects, and exchanges of literature. All of this required the permeability of the Iron Curtain in Europe. Also, intensive trade allowed Finnish companies to supply the USSR with raw materials and techniques required for Soviet modernization.

Despite technological improvements, the intensity of forest use progressively weakened due to several factors. Among them were basic shifts in fuel use (oil, imported from the USSR, became the main source of fuel), increased imports of timber and the growing use of wood wastes. It then became possible to think about the cultural and recreational functions of forests, a field in which Finland has developed leading projects since the 1990s.

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