



**FINNISH FOREST
RESEARCH INSTITUTE**

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Cover: Mature pine stand in Vilppula Research Area
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The Finnish Forest Research Institute

The Finnish Forest Research Institute is a State research establishment, subordinated to the Ministry of Agriculture and Forestry. Its task is to produce reliable knowledge for the promotion of Finnish forestry and the expedient use of Finland's forest resources and forests. Besides the research mission, the Institute is charged with official duties in the fields of forest statistics, forest taxation, inspection of pesticides and registration of regeneration material.

The Institute was established in 1917. Varying with the season, the number of the staff goes up to 700—1,000, approximately half of which are located outside Helsinki. The academic research personnel numbers about 250.

The Finnish Forest Research Institute is a modern, nationwide research organization, which has won international recognition as well. The knowledge it has accumulated forms the groundwork on which practising foresters and forest owners rely when making decisions on Finland's most important renewable resource, forest.

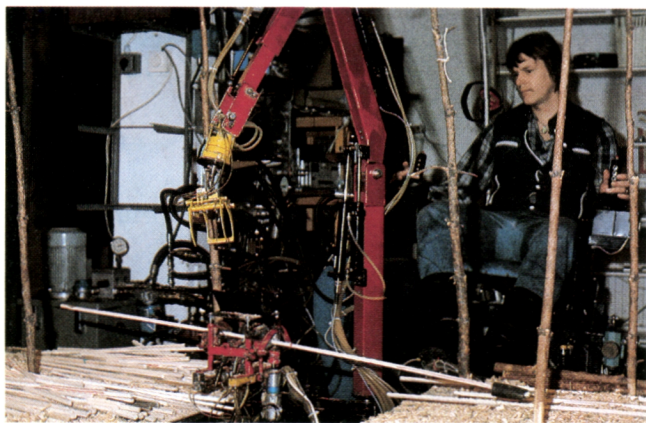


Determining the effects of air pollution on forest soils is one component of the ILME Project.

Research mission

The work of the Institute is directed by the goals of Finland's forest policy and the needs of forestry and wood economy. Individual research topics are admitted into the work program after a thorough scrutiny, in which the interests of practical forestry are also represented. Some of the duties of the Institute are

- to study and improve methods for increasing, diversifying and developing the production of Finland's forests in the face of changing requirements
- to develop new applications for forest products
- to investigate how harvesting and utilization of wood and other forest products can be intensified
- to investigate how forest environment is affected by forestry and other production activity
- to study damage to forest and ways to prevent it
- to make regular inventories of the country's forest resources, to study the use of wood for different purposes and to carry out forest balance calculations for national and regional planning
- to study the economic prerequisites for forestry from a regional standpoint and from that of an enterprise, and to follow the international development in the field
- to study the social benefits of forests and their importance to the population in different parts of the country
- to study the principles of devising operational methods that are energy-saving, environmentally desirable and ergonomically acceptable.



The forest machine simulator at Suonenjoki Research Station helps to investigate machinery innovations, operator training and ergonomics.



Bark beetles are the most destructive insects in the forests of Lapland. Insect galleries being measured at Rovaniemi Research Station.

Operating units

The present organisation of the Institute is defined by a statute dating from 1986.

Research is performed in nine research departments and eight research stations. Related field experiments are conducted in research forests in various parts of the country. In addition, the Institute has two offices to handle administrative matters.

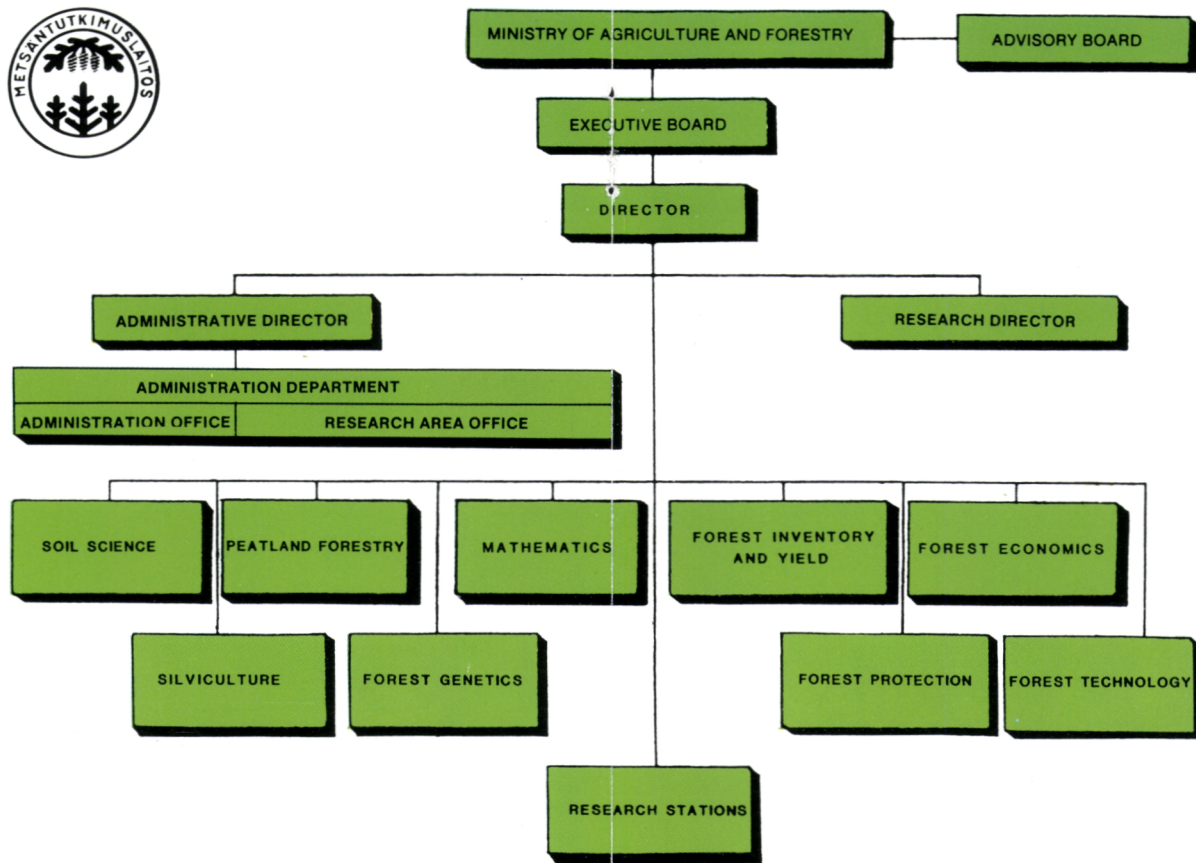
Research departments

The Department of Soil Science studies mineral soil — its properties, classification, improvement and use for forestry purposes.

The Department of Peatland Forestry studies peatlands — their properties, hydrology, drainage, improvement and afforestation.

The Department of Silviculture studies natural and artificial regeneration, afforestation of mineral soils, forest tree seed crops, raising of seedlings, methods of growing forest, forest ecology and tree physiology.

The Department of Forest Genetics studies the genetic structure of forests, tree morphology and breeding methods, performs forest tree breeding and keeps a national register on regeneration material.



The Department of Forest Protection studies insects and other animals harmful to forestry, the damage caused by them and control of the damage as well as forest tree diseases and their control. The department also investigates utilization of forest mushrooms and inspects pesticides.

The Department of Forest Inventory and Yield studies the methods of forest mensuration and forestry planning, carries out national forest inventories and investigates the structure, growth and yield of the stock.

The Department of Forest Technology studies the mechanization and other development of forest operations, ergonomics, remuneration criteria as well as the structure

and properties of wood, wood measurement and wood as a raw material for industry.

The Department of Forest Economics studies forestry from a national economic and social standpoint, wood consumption and forest balance. The department also investigates business economics in forestry and wood economy, and studies markets for roundwood and forest industry products.

The Department of Mathematics studies and develops mathematico-statistical methods required in forest research, assists the research personnel in the application of research and calculation methods, is responsible for the data processing services and compiles forest statistics.



A tract of virgin pine forest in Häädetkeidas Strict Nature Reserve.



Muhos Research Station.

Research stations

Construction of the research stations was started in the 1960's. The stations investigate mainly regional problems and act as a link between the Institute and practical forestry. The stations are located at Parkano, Kolari, Muhos, Rovaniemi, Suonenjoki, Joensuu, Kannus and Punkaharju.



Vilppula Research Area.

Research areas

Unlike its counterparts in many other timber-producing countries, the Finnish Forest Research Institute controls nearly 150,000 hectares of State forests, which are used as research areas representative of all parts of the country.

The research areas were established to secure the continuity of long-term experiments and to help concentrate research work. The areas are in intensive use, as shown by the more than 25 000 sample plots established in them. Several field experiments are underway on other State-owned land as well, and, by virtue of research contracts, in forests belonging to forest industry companies or private owners.

The research areas of the Institute include different nature conservation areas, of which the largest are the national parks of Pallas-Ounastunturi and Pyhä-tunturi, the strict nature reserves of Malla, Pisavaara, Häädetkeidas and Karkali, and Aulanko nature conservation area.

The research areas also contain some important tourist attractions, like the areas of Kilpisjärvi-Saana, Koli, Punkaharju and Saariselkä-Laanila.



Research and practice meet. Research findings being presented on a field excursion in Lapinjärvi Research Area.

Publication and information activity

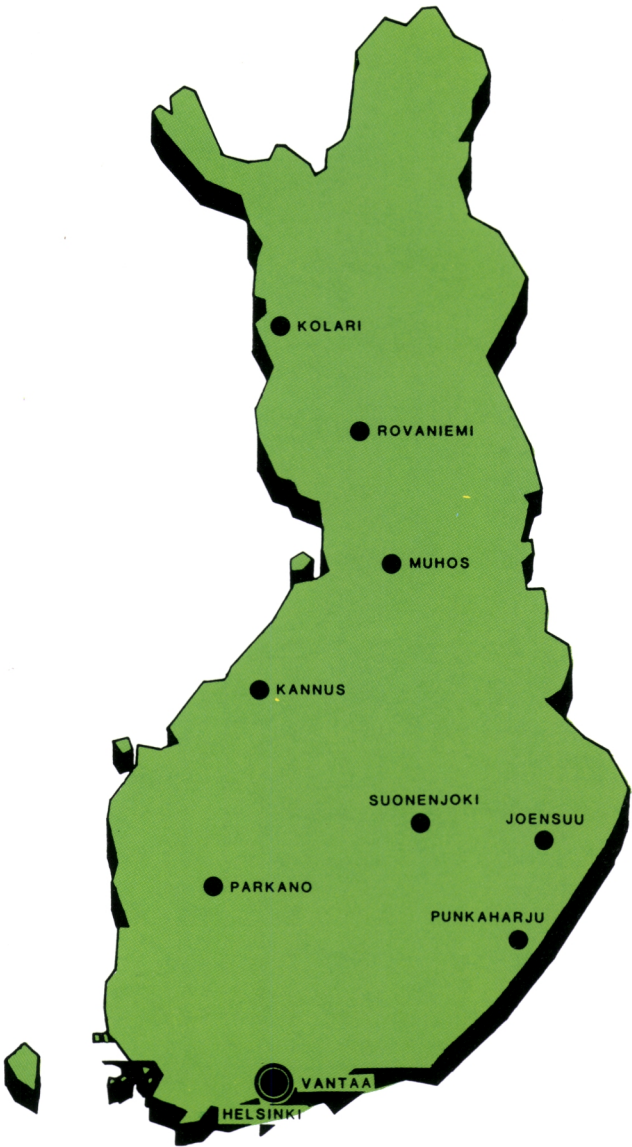
The Institute publishes the results of its research mainly in the following series:

Communicationes Instituti Forestalis Fenniae, the principal scientific series, has been published since 1918.

Folia Forestalia-series, issued since 1963, consists mostly of reports intended for practical use and of intermediate and preliminary results of long-term projects.

The series *Metsäntutkimuslaitoksen tiedonantoja* (Bulletins of the Finnish Forest Research Institute), started at the beginning of 1981, contains reports that have a smaller circulation. The language is usually Finnish only.

Research findings are also communicated to the practising forester with the aid of trade journals, training activities, excursions in research forests and annual workshops at research stations.



 Headquarters

Research stations of the Finnish Forest Research Institute.

