

# Ownership of forest land

## Quality Report

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### 1 Contact information

#### 1.1 Organisation

Natural Resources Institute Finland

#### 1.2 Organisational unit

Statistical Services

#### 1.3 Contact person's name

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### 2 Metadata update

#### 2.1 Most recent backup copy of metadata

1.7.2022

#### 2.2 Most recent addition of metadata

1.7.2022

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### 2.3 Most recent update of metadata

1.7.2022

## 3 Description of the statistics

### 3.1 General description of the statistics

The statistics present information about the number of forest property entities owned by non-industrial private holdings, private persons and other groups, as well as about forest land areas.

### 3.2 Classifications

A forest property entity means all forest properties owned by the same owner(s) in the whole of Finland. The data is presented regarding forest property entities of at least one hectare of land until 2013. Since 2013, the data is also available regarding entities of less than one hectare.

Forest property entities include the farms that are in the Finnish Tax Administration's register and have forests in their area. A farm means an independent economic unit engaged in agriculture or forestry. The majority of taxable farms are only engaged in forestry and not in agriculture at all. A forest property (farm) can consist of several properties and/or unseparated parcels that contain forest land.

Forest land includes any land used or intended for growing trees, where the average annual growth of fully stocked trees suitable for the growth location is at least one cubic metre of roundwood with bark per hectare during the rotation age resulting in the highest average production.

In the statistics, forest property entities are divided into size classes according to the forest land area. Forest property entities are assigned to the region (the Finnish Forest Centre's operating area or the regions of Finland), in which its owner or the older spouse resides permanently.

Holdings consist of forest property entities located in the area of a single owner (forest management associations until 2013 and regions starting from 2013). Forest properties owned separately by spouses are always separate holdings. Holdings

are recorded in the region based on the municipality in which they are located.

Forests owned by private individuals include 1) forests owned alone or together with a spouse; 2) forests owned by death estates; and 3) forests managed by partnerships.

### 3.3 Coverage

The data included in the statistics cover all properties that contain forest land in accordance with the Finnish Tax Administration's information.

### 3.4 Statistical concepts and definitions

#### Property classifications

**A forest property entity** means all forest properties owned by the same owner(s) in the whole of Finland. Until 2013, a forest property entity contained at least one hectare of land. From 2013 onwards, the data is also available regarding entities of less than one hectare. If a person owns forest properties individually and as a party to a death estate or partnership, they will be regarded as separate forest property entities. While a forest property entity can also include a field, plots, poorly productive land and non-productive land, these statistics only concern forest land.

**Forest property entities** include the farms that are in the Finnish Tax Administration's register and have forests in their area. A farm means an independent economic unit engaging in agriculture or forestry (act on agricultural income tax 543/1967, section 2.2). The majority of taxable farms are only engaged in forestry, not at all in agriculture. A forest property (farm) can consist of several properties and/or unseparated parcels that contain forest land.

**Forest land** includes any land used or intended for growing trees, where the average annual growth of fully stocked trees suitable for the growth location is at least one cubic metre of roundwood with bark per hectare during the rotation age resulting in the highest average production (act on the valuation of assets in taxation 966/2006, section 7).

In the statistics, forest property entities are divided into size classes according to the forest land area.

Forest property entities are assigned to the region of the Finnish Forest Centre's operating area or the region of Finland in which its owner or the older spouse resides permanently. Partnerships and death estates are assigned to the region in which the person appointed as their director lives. Data on farms owned by individuals residing abroad or those whose place of residence is unknown has been presented on a single row since 2010 and itemised on separate rows since 2013. Before then, data on farms owned by these individuals was only included in summary data for the whole of Finland. Since 2013, the tables have also itemised summary data on forest owners who have restricted access to their personal data that cannot be assigned to other categories.

**A holding consisted of forest** properties that were owned by a single owner and located in the area of a single forest management association until 2013 and has consisted of properties located in the area of a single region of Finland since 2013. As forest properties owned separately by spouses are always separate holdings, the number of holdings is significantly higher than that of forest property entities. In the statistics, holdings are assigned to the region according to the municipality in which they are located (not based on the owner's municipality of residence).

#### Forest owner classifications

The majority of forest land in Finland is owned by private individuals or the state.

In these statistics, **forests owned by private individuals** include 1) forests owned alone or together with the spouse; 2) forests owned by death estates (act on income tax 1535/1992, section 17); and 3) forests managed by partnerships (act on income tax, section 4). Ownerships may overlap.

**Forests owned alone or together with the spouse** mean forest properties owned jointly or severally by marital or cohabiting couples. These constitute a single entity unless the spouses have required separate taxation, in which case forest

properties have been divided into separate entities in the statistics.

**A partnership** is formed by two or more people for the management and use of a property. As a partnership is not a legal person, it cannot acquire assets in the partnership's name. A forest property entity is an asset in the name of a partnership's shareholders, to which they have a percentage-based right of ownership. Partnerships can be formed in various ways, but they are generally made from a death estate based on a deed of distribution of the estate. A partnership can also be called an agricultural, forest or property partnership based on the activities in which it is engaged.

**A death estate** means an economic entity composed of a decedent's assets and liabilities. Parties to a death estate include the decedent's heirs and spouse until partitioning. A death estate is usually dissolved during its distribution, but it can remain undistributed, even for a long time, if the parties to it so desire. As death estates are subject to separate tax, information about the number of parties to them cannot be obtained from the Finnish Tax Administration. In these statistics, the number of parties to death estates is estimated based on Metla's 2010 forest owner survey (on average 4.0 parties to a death estate). A death estate is not among the legal forms in the Finnish Tax Administration's current ownership register.

**A jointly owned forest** is a jointly owned forest area belonging to actual or "imaginary" properties, the purpose of which is to engage in sustainable forestry for the benefit of its owners. Profits from a jointly owned forests are distributed to their owners according to their share of ownership.

**In taxation**, a benefit under joint administration means a road maintenance association, fishing cooperative or other comparable partnership. The aforementioned jointly owned forest is also a benefit under joint administration. However, in these statistics, jointly owned forests are kept separate from other benefits under joint administration.

Here, **business partnerships** mean general and limited partnerships and other business partnerships that at least two

natural persons have established for pursuing business activities, and that are to be run jointly in the name of their shareholders.

**A cooperative** is a company form whose purpose is to engage in economic activities to support its members' financial management or business so that they use the services provided by the cooperative. A cooperative can have any number of members and participations and any amount of capital. In these statistics, cooperatives do not include cooperative banks.

**A limited liability company** is a company form whose holdings are divided into specific transferable parts (shares). A limited liability company can be established by one or more natural or legal persons. The limited liability companies included in these statistics can be engaged in any line of business, apart from housing companies and real estate companies.

**A foundation** means foundations in accordance with the Foundations Act and other foundations except for pension foundations. A foundation is a legal person composed of assets separated for use for a specific purpose. The establishment of a foundation is subject to permission from the Finnish Patent and Registration Office. A foundation must have rules that determine how its assets can be used.

The term "**church and other religious communities**" means the Evangelical Lutheran Church, the Orthodox Church and registered religious communities.

The term "**municipality, joint municipal authority and region**" means municipalities, joint municipal authorities, the Åland Island and its agencies, and their enterprises.

**The state** covers central government and its agencies, governmental institutions with separate administrations and unincorporated state enterprises. The majority of state-owned forests are managed by Metsähallitus.

The "**others**" group covers all other forest owners not included in the aforementioned groups. These include housing companies, shipping companies under joint ownership, mutual joint-stock property companies, other joint-stock property companies (not mutual), other companies, voluntary

associations, associations based on special legislation, mutual indemnity insurance companies, forestry societies, cooperative banks, mutual benefit societies, unemployment funds, other economic associations, other associations, savings banks, pension foundations founded by a charter of foundation, pension funds, mortgage societies, students' unions or associations, other legal persons subject to public law, bodies jointly and severally liable for tax withholding, bankrupts' estates, other units subject to taxation, non-resident corporations, branches of a non-resident corporation in Finland, and others.

### 3.5 Statistical unit

The statistics are prepared using data available in the Tax Administration's registers. The statistics include total data about the ownership and surface areas of properties in the entire country.

### 3.6 Population of the statistics

The statistics cover information about the number of forest property entities owned by non-industrial private holdings, private persons and other groups, as well as about forest land areas.

The statistics are compiled based on the Finnish Tax Administration's registers on forest ownership. The Finnish Tax Administration is an authority that has total data about the ownership and surface areas of properties in the entire country.

### 3.7 Reference area

Currently, the statistics are divided between the regions of Finland, and data is also calculated for the whole of Finland.

### 3.8 Chronological coverage

Data on forest property entities owned by private individuals is available from 2006, and data on all forms of ownership is available from 2010. Data on the number and surface area of private holdings is available from 2009. Due to changes in calculation methods, there is a break in the time series in 2013.

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### 3.9 Base period

These are not index statistics.

### 4 Measuring unit

The surface area of forest land is presented in hectares, and the number of units of ownership is presented as the number of units.

### 5 Reference period

Calendar year

### 6 Authorisation

The duties of the Natural Resources Institute Finland have been defined in the Act on the Natural Resources Institute Finland (561/2014) and the Act on the Food and Natural Resources Statistics (562/2014). The Act on the Food and Natural Resources Statistics defines the duties of the Natural Resources Institute Finland to be compiling and publishing statistics regarding:

- 1) the structure, production methods, and input in production of agriculture; the production of crops, horticulture, and livestock; the environmental effects of production, and the prices of agricultural products,
- 2) commercial utilisation of forests, activity of the wood market, conservation and maintenance of forests,
- 3) fishing, aquaculture, fisheries, the market of fisheries, and
- 4) the safety of food products.

The act gives the Natural Resources Institute Finland extensive permissions to collect information on agriculture, horticulture, aquaculture, processing and trade of agricultural and aquacultural products, forestry, and the processing and trade of wood.

The Statistics Act (The Statistics Act 280/2004, 361/2013) legislates on, including but not limited to, data collection, data processing, and duty of disclosure. In addition to the Statistics Act, the Personal Data Act and the Act on the Openness of

Government Activities are applied when processing data for compiling statistics.

The main document guiding our actions is the perennial European statistical programme, approved by the European Parliament and the Council of Europe, based on which the commission produces an annual work programme. The statistics included in the European Statistical Programme are prescribed in the Council Regulation 322/97.

The Statistical Office of the European Union, Eurostat, and the statistical offices of EU countries must apply the EU's Statistics Act when compiling statistics following the work programme. As a supranational regulation, it surpasses the national Statistics Act but in practice there are no contradictions between the Statistics Acts of the EU and Finland.

## 6.1 Legislation and other agreements

The statistics are compiled based on the Act on the Natural Resources Institute Finland (561/2014), the act on food and natural resource statistics (562/2014) and the Statistics Act (280/2004).

## 6.2 Distribution of information

The statistics are published on the Natural Resources Institute Finland website. A webpage, announcements, news, and blogs regarding the statistics can be found on the website of the Natural Resources Institute Finland. Tables relating to the statistics are available on the statistics database of the Natural Resources Institute Finland.

## 7 Statistical data protection

### 7.1 Data protection principles

Confidentiality is a base principle of statistics and assures the confidential processing of data provided by informants, and the Natural Resources Institute Finland has undertaken to follow this principle. Micro-data is confidential and must never be released for administrative decision-making, investigation, surveillance, legal proceedings, or similar purposes.

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### 7.2 Information security and data protection in the processing of data

The confidentiality of data collected for statistical purposes is guaranteed according to the Statistics Act (280/2004), the Personal Data Act (523/1999), the Act on the Openness of Government Activities (621/1999), and the EU General Data Protection Regulation (2016/679). Data is protected at all stages of processing using the necessary physical and technological solutions. The staff only has access to information necessary for their duties. Unauthorised people do not have access to spaces in which micro-data is processed. Staff members have signed a non-disclosure agreement when entering duty. Intentional breach of confidentiality will be penalised.

## 8 Publication policy

The disseminations of the Natural Resources Institute Finland are published online on weekdays at 9:00. Data is public after it has been published on the website.

### 8.1 Publication calendar

The publication dates are confirmed in autumn together with the action plans. The release calendar of the following year is published for users in the end of the year. The release calendar holds data on the dates of future publications. The publication dates are published in the calendar at first with an accuracy of one week, and two months prior to the publication date with an accuracy of a day. The calendar also contains direct links to already published statistical publication.

### 8.2 Access to the publication calendar

[Statistical releases calendar | Natural Resources Institute Finland](#)

## 9 Distribution frequency

Annually

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### 10 Accessibility and clarity

#### 10.1 Media release (publication of the statistics)

The aim is to publish the statistics annually. Due to calculation difficulties, the most recent statistics date back to the statistical year of 2016.

#### 10.2 Publications (broader/others)

Statistical Yearbook of Forestry until 2014. Finnish forest statistics in 2018–2020, whose name was changed to the Statistical Yearbook of Forestry in 2021.

[Finnish Statistical Yearbook of Forestry | Natural Resources Institute Finland \(luke.fi\)](https://www.luke.fi/en/forestry-statistics)

Until 2009, a quantity-based table divided according to the size category of private holdings based on the Finnish Tax Administration's statistics on the obligation to pay a silvicultural fee was published in the Finnish Forest Research Institute's Statistical Yearbook of Forestry.

#### 10.3 Online database

[PxWeb - Ownership of forest land](#)

#### 10.4 Other distribution of information

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#### 10.5 Methodology documentation

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#### 10.6 Quality documentation

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### 11 Quality control

#### 11.1 Quality assurance

In compiling statistics, the National Resources Institute Finland (Luke) complies with the Code of Practice (CoP) for European statistics and the Quality Assurance Framework (QAF) based on it. The CoP concerns the independence and liability obligation of the statistical authorities and the quality of processes and

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published information. Its principles are compatible with and supplement the principles of official statistics approved by the UK Statistical Commission. In addition, the quality criteria set for the Official Statistics of Finland are compatible with the CoP. Its principles are also compatible with the European Foundation for Quality Management (EFQM).

### 11.2 Quality evaluation

Statistical values are compared with previous data in the compilation of the statistics.

## 12 Relevance

Users of the statistics are requested to provide feedback during meetings concerning changes in the statistics and in conjunction with written requests for comments. Feedback is also received directly. Feedback from users is monitored and taken into account when developing the statistics.

### 12.1 Users' needs

The purpose of the statistics is to produce an updated overview of forest ownership and its development and enable analyses by politicians who have an impact on forest ownership. One of the advantages of the comprehensive statistics is that they help monitor all forest owner groups and any changes in them at the same time. As a result, it has been possible to identify any shifts between different owner groups and changes within each owner group.

### 12.2 User satisfaction

Feedback is collected from the users of the statistics, especially when revising the statistics. Feedback is also received directly. In addition, we investigated the wishes of users for developing the statistics in the autumn of 2021 and beginning of 2022, when updating the work programme for the Natural Resources Institute Finland. We follow the received feedback and take it into consideration in developing the statistics.

### 12.3 Completeness

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## 13 Accuracy and reliability

### 13.1 Accuracy and reliability in general

The Finnish Tax Administration's land quality data is based on land tax categories carried out over several decades, which ended in the 1990s. The forest land areas published in the statistics are therefore underestimates of the current surface area of forest land. According to the Finnish Tax Administration's data, the total area of forest land was 17.8 million hectares at the end of 2016. This figure was 2.5 million hectares lower than the most recent forest land area measured in the 11th National Forest Inventory (20.3 million hectares).

The number of jointly owned forests and the surface area of forest land have been adjusted in the statistics, because some benefits under joint administration (e.g. fishing cooperatives and alluvial land; code 50) have been incorrectly included in jointly owned forests in the Finnish Tax Administration's dataset. Based on the National Land Survey of Finland's data on jointly owned forests, the smallest jointly owned forests are in the 10–20 hectare forest land size category, which is why any jointly owned forests of less than ten hectares recorded in the Finnish Tax Administration's data have been converted into benefits under joint administration. As a result, there may be minor errors in the number of jointly owned forests and the surface area of forest land in the statistics.

Based on monitoring activities carried out in 2006–2013, the area of state-owned forest land has both decreased and increased in the Finnish Tax Administration's register, even though similar changes have not actually taken place. As a result, the statistics have not been applicable to closely monitoring any changes in the area of state-owned forest land. The aforementioned variation has had an impact of one percentage point on the relative share of state-owned forest land of the total area of forest land. No similar chronological inconsistency has been detected regarding other forest owner groups.

The number of parties to death estates cannot have been calculated based on the Finnish Tax Administration's dataset, as it has been calculated using the 2010 forest owner survey. It

should also be stated that a single forest owner can own forests not only as a private individual, but also as a party to a partnership or death estate. Such overlapping ownership cannot have been reduced from the total number of owners.

The figures presented in the statistics were calculated by the Finnish Tax Administration until 2013. In 2019, the calculations transferred to Luke which has calculated the results using unit-specific data obtained from the Tax Administration starting from 2013. At this stage, the calculations were specified, resulting in a break in the time series. Data from 2013 about the whole country is available using the previous method (table of operating areas of the Finnish Forest Centre) and using the new method (table of regional distribution).

As the statistics on holdings have been compiled based on the forest location (forest management associations or the regions of Finland), the properties of a single owner located in two or more regions are recorded separately in the statistics. Furthermore, properties owned separately by spouses are also defined as separate units. As a result, the statistics on holdings underestimate the number of large properties in particular and overestimate the number of farms in smaller size categories. All in all, the number of holdings is significantly higher than that of forest property entities. Another significant difference is that holdings have been divided into regions based on the municipality in which they are located.

## 13.2 Sampling error

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## 13.3 Other sources of error

### 13.3.1 Coverage error

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### 13.3.2 Measurement error

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### 13.3.3 Non-response error

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### 13.3.4 Processing error

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### 13.3.5 Modelling error

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## 14 Timeliness and promptness

### 14.1 Timeliness

The tax assessment is completed in November of the year following the statistical year, and the aim is to publish the statistics during next January. In the annual statistics, the delay from the end of the tax year to the publication of the statistics is approximately 13 months.

The statistics on forest property entities represent the situation at the end of the statistical year. The statistics on holdings divided into the regions of forest centres represent the situation at the beginning of the year, while the regional statistics represent the situation at the end of the year.

### 14.2 Promptness

Due to calculation issues, the statistics cannot have been published after the 2016 statistical year.

## 15 Consistency and comparability

### 15.1 Geographical comparability

The data is comparable in the national regions included in the statistics. However, the classification of regions has changed during the history of the statistics. Until 2013, the regions of forest centres were used (14 in 2013). Since 2013, the data has been divided into the regions of Finland. Regional data is not comparable between the years when the methodology was changed.

### 15.2 Chronological comparability

The statistics are chronologically comparable except for state-owned forest land, whose surface area involves annual inaccuracies. Due to changes in calculation methods, there is a break in the time series in 2013.

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### 15.3 Uniformity across statistical areas

The Finnish Tax Administration's data on forest land area differ significantly from the owner group-specific forest land area calculated based on Luke's National Forest Inventories. The key reason is that the Finnish Tax Administration's land quality data is based on land tax categories carried out over several decades and ending in the 1990s, whereas Luke's land inventory data is based on new land surveys. Following tax categories, peatland drainage has increased the forest land area, for example.

The forest land areas published in the statistics are underestimates of the current surface area of forest land. According to the Finnish Tax Administration's data, the total area of forest land was 17.8 million hectares at the end of 2016. This figure was 2.5 million hectares lower than the most recent forest land area measured in the 11th National Forest Inventory (20.3 million hectares). According to the Finnish Tax Administration's data, the forest land area was 10.6 million hectares in non-industrial private forests, while the corresponding figure is 12.2 million hectares based on the most recent inventory data.

However, the Finnish Tax Administration's dataset includes the most accurate data concerning the ownership of forest land based on such a detailed owner group classification.

#### 15.3.1 Uniformity between interim and annual statistics

To be included in the statistics that include interim (e.g. monthly) and annual publications.

#### 15.3.2 Uniformity with the National Accounts

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### 15.4 Internal uniformity

The Finnish Forest Centre also publishes statistics on forest ownership. The Finnish Forest Centre's product is based on the National Land Survey of Finland's property information system, and the Finnish Forest Centre's data is adjusted based on the updating of data in background systems. The published data may differ slightly from Luke's data, for example. These differences may result from differences between analysed

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groups or data sources and other analyses. In addition, the perspectives of analyses may differ.

### 16 Costs and response burden

The dataset based on registered data does not cause any response burden.

### 17 Statistical process

#### 17.1 Source data

The statistics are compiled based on the Finnish Tax Administration's data on units.

#### 17.2 Data collection frequency

Annually

#### 17.3 Data collection method

The statistics on ownership of forest land are compiled using registered data covering the whole of Finland without any sampling.

Forest property entities have been formed for these statistics based on the Finnish Tax Administration's dataset.

Until 2013, the statistics on holdings were based on the Finnish Tax Administration's calculations made for monitoring the obligation to pay the silvicultural fee. The silvicultural fee paid annually by forest owners is based on the act on forest management associations (534/1998) and for Åland, on the act on Åland's forest management association (51/2001). Since the 2013 statistical year, holdings have been divided into the regions of Finland using the Finnish Tax Administration's dataset.

#### 17.4 Validation of data

The data obtained through the calculation is compared with previous data.

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### 17.5 Processing of data

The statistics are compiled based on the Finnish Tax Administration's data on units following the definitions used in the statistics.

### 17.6 Seasonal adjustments

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### 18 Comments

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