STATISTICS DENMARK

Documentation of statistics for Felling of Wood in the Danish Forests 2024

Statistics Denmark
Sankt Kjelds Plads 11
DK 2100 København Ø

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1 Introduction

These statistics cover the production of wood in Danish forests and plantations. The figures are used for the calculation of the gross value added for forestry. Statistics on felling of wood in Danish forests and plantations can be traced back to 1950.

2 Statistical presentation

The statistics are a yearly enumeration of tree felling. The tree felling is divided into tree for energy, firewood and different kinds of timber. Timber can for instance be used for production of paper and furniture. The figures are distributed geographically by regions and provinces.

2.1 Data description

Questions relating to the following domains are included: Total forest area including beech, oak, conifers, decorative greenery, temporary uncovered area, uncovered area, total forest area and Christmas trees and decorative greenery. The felling of beech, oak, other broadleaves and conifers are calculated to m3 solid mass, equivalent to dry matter in conifer logs.

2.2 Classification system

Regions

The felling of tree is divided in specific agricultural regions (subdivision of administrative regions). It is chosen to show results for Copenhagen city, Copenhagen and North Zealand region collectively as "Copenhagen and North Zealand" and similar for the provinces East Zealand and West Zealand, which coincides with Region Zealand. North Jutland Region is not divided further. The breakdown is as follows: • The whole country • Capital Region • Copenhagen city, Copenhagen area and North Zealand • Bornholm • Region Zealand • South Denmark • Funen incl. islands • South Jutland • Mid Jutland • East Jutland • West Jutland • North Jutland

Types of tree

The feeling is divided by broad-leaved and coniferous tree and in turn by firewood and timber.

2.3 Sector coverage

The population consists of all local units in the Business Register marked as active in forestry and with at least 0.5 hectares with forestry, also if the NACE code is different from forestry. Many local units having their most important activity in agriculture have also forestry as a secondary activity. They are also included in the population.

As such there is no coverage of specific sectors based on an enterprise classification.

2.4 Statistical concepts and definitions

Forestry Farm: A forestry farm is defined as a local unit in the Business Register with at least 0,5 hectares wood land.

2.5 Statistical unit

The survey unit is a local unit in the Business register.

2.6 Statistical population

The population is the Danish area with forestry.

2.7 Reference area

Denmark.

2.8 Time coverage

1990 and onwards.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

- Felling and sales of tree, m3 solid mass

2.11 Reference period

The calendar year.

2.12 Frequency of dissemination

Yearly.

2.13 Legal acts and other agreements

The Act on Statistics Denmark, article 8.

2.14 Cost and burden

156.000 Danish kroner in 2013. No newer calculation is available.

2.15 Comment

Not relevant for these statistics.

STATISTICS DENMARK

3 Statistical processing

The base of the statistics is a sample survey with questionnaires. The sample is representative for regions and size groups..

The questionnaires are completed online. Before publication the answers are validated where each single questionnaire is subject to a control for reliability.

3.1 Source data

Information from questionnaires from forestry farms. The statistics are based on a questionnaire survey among Danish forests with at least 0.5 ha of forest.

3.2 Frequency of data collection

Yearly.

3.3 Data collection

The survey is based on questionnaires. The questionnaire has to be completed online.

3.4 Data validation

The survey is validated in three different steps:

When completing the questionnaire online all questions must be answered.

In the next step the answers are checked for unrealistic values. Mistakes are corrected immediately, sometimes after having contacted the owner of the forestry by phone.

In the last step the results by regions are studied. In this step it will often be possible to find a few big mistakes which have been overlooked in the first two steps.

3.5 Data compilation

The survey is a stratified sample survey where the stratification has three dimensions:

Size with wood land, five groups:

- 0.5-4.9 ha
- 5.0-19.9 ha
- 20.0-49.9 ha
- 50.0-99.9 ha
- 100.0 ha and over

Four regions:

- East Denmark
- Region Syddanmark
- Midtjylland
- Nordjylland

The smallest of forests of 0,5-4,9 hectares constitutes one stratum only irrespective of region, and thereby has sample all in all 17 strata. The sample is extrapolated to a total level by choosing the area with forest in Denmark as target. The area with forestry is calculated by Ministry of Environmental Affairs.

3.6 Adjustment

No adjustments bedsides what is described in “Data validation and “Data analysis”.

4 Relevance

There is no survey on user satisfaction but the main impression is a high degree of satisfaction, however many users would like to have figures for area with forestry by municipalities.

4.1 User Needs

The most important users are forestry organizations, wood manufacturing industries, ministries and the European Union. The statistics are an important input in the calculation of gross domestic product at factor costs for the forestry sector.

4.2 User Satisfaction

There is no survey on user satisfaction. The main impression is that most users are satisfied with the statistics but often they have wishes about more detailed regional figures with figures for municipalities.

4.3 Data completeness rate

The statistics are in accordance with internationally recognized definitions of wood land.

STATISTICS DENMARK

5 Accuracy and reliability

Due to a small sample of only 10 percent of the forests the sample error is higher than for similar agricultural surveys, also because a relatively big part of the felling is among small forests with a low coverage in the sample.

The sample error of felling of trees s about 2 per cent.

5.1 Overall accuracy

The sample error of the total felling is about 2 percent. This figure is a measure for the sample error.

It is difficult to ascertain if there is any bias in the figures in the meaning of systematically too big or too small reported figures. The figures for the felling are compared with the area of wooded land.

5.2 Sampling error

The sample error of the total felling of tree was is about 2 per cent.

5.3 Non-sampling error

Coverage errors: Cannot be calculated Measurement errors: No information Non response: 8.5 percent in 2024 Calculation errors: Not relevant Model assumptions: Not relevant

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

The survey is subject to certain sources of error:

- With respect to the register base there is a certain number of forestry farms which do not really have any wooded area but rather are agricultural farms or institutions with nature areas.
- The survey is subject to a normal sample error. The sample error of the total felling is about 2 per cent.
- The figures for the felling might be underestimated as it is more difficult to detect if the reported felling is too small than if it is too big.

By combining the extrapolation of the sample results into total results an acceptable quality is obtained. The total wooded area is known with a high degree of certainty.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Only final data are published.

6 Timeliness and punctuality

The statistics are published in December the year after the reference year, for 2024 December 15 2025.

6.1 Timeliness and time lag - final results

The survey is normally published in December the year after the reference year.

6.2 Punctuality

The figures are published as planned.

7 Comparability

The survey has always had the same standard and the same target population. Prior to the 2012 survey Statistics Denmark conducted a project aiming at improving the register of forestry farms. At the same time the extrapolation was for the first time made dependent on the total area with forestry. It means that the total felling in 2012 estimated to 3.1 million m3 should be seen as reliable whereas the results recent years before 2012 most likely are underestimated by about 500.000 m3.

7.1 Comparability - geographical

There is no internationally recognized standard for felling and forestry surveys as is the case for agriculture. However, the contribution of the forests to the gross domestic product should be included in the national accounts and on this point Denmark is in accordance with internationally recognized principles of national accounts.

7.2 Comparability over time

The statistics are comparable back to 1950.

7.3 Coherence - cross domain

The University of Copenhagen publishes every year "Skove og plantager". ("Forests and plantations").

7.4 Coherence - internal

For each survey all the collected answers are stored in one register with all survey characteristics included in the survey. There is one and only one extrapolation factor per farm. For this reason no inconsistency can occur.

8 Accessibility and clarity

These statistics are published yearly in a Danish press release and in the StatBank under Forestry.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

8.4 News release

These statistics are published yearly in a Danish press release Hugsten i skove og plantager..

8.5 Publications

In addition to http://www.Statbank.dk the survey is published in News from Statistics Denmark.

8.6 On-line database

The statistics are published in the StatBank in the following tables:

- SKOV6: Felling in forests and plantation in Denmark by region, species of wood, area and time
- SKOV11: Forestry area by region, forest area and time
- SKOV55: Felling in forest and plantation in Denmark by region, species of wood and time
- SKOV55A: Felling in forest and plantation in Denmark by region, species of wood and time

8.7 Micro-data access

Researchers may obtain access to anonymous Micro-data.

For each survey a final survey register is created containing all forestry farms which completed the questionnaire.

8.8 Other

Nothing tor remark.

8.9 Confidentiality - policy

The tables are never so detailed that there is a risk of disclosure of individual forestry farms.

8.10 Confidentiality - data treatment

The tables are never so detailed that there is a risk of disclosure of individual forestry farms.

8.11 Documentation on methodology

Statistics Denmark published in 1990 and 2000 the publication"Skove og plantager" ("Forests and plantations" in co-operation with The Environmental Ministry. The publications were based on the forestry censuses held these years. From 2006 onwards the book has been published by The Department of Geosciences and Natural Resource Management at the University of Copenhagen.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics is in the division of Food Industries, Business Statistics. The contact person is Karsten Kjeld Larsen, tel.: + 45 2129 5576, and e-mail: KKL@dst.dk.