

# Documentation of statistics for Accounts Statistics by Industry 2018



#### 1 Introduction

The purpose of the present version of accounts statistics for primary industries is to compile statistics on agriculture, fishery and aquaculture which are comparable with accounts statistics on private non-agricultural industries. Furthermore the purpose is to analyze the economics in the primary industries and can be the basis for business policy decisions. In addition to this, accounts statistics also constitute a substantial input for compiling the national accounts. Data is available for 2008 and forward.

## 2 Statistical presentation

The purpose of the statistics is to analyze the activity level and the structure of the Danish primary industries yearly. The basis of the statistics is detailed accounts items e.g. turnovers, costs, profits, assets, debts and investments. This statistics is a further processing of the data collected to the accounts statistics on agriculture, fishery and aquaculture.

## 2.1 Data description

The aim of the accounts statistics is to be representative of all primary industries. However forestry, hunting and beekeeping are not included in the statistics. The primary statistical data are available at the Statbank Denmark website, where a detailed description of the selection of primary data, compilation methods and definitions is given. In relation to these statistics, the population is further delimited to include only enterprises with more than ½ man-years. This delimitation is made in order to enable comparability with the accounts statistics on non-primary industries.

The statistics analyzes the profit and loss accounts, balance and investments at the sector level of the primary industries.

The primary statistical data contain detailed accounts items, including items for turnover, purchases, costs, operating result of the year, assets, liabilities and investments.

#### 2.2 Classification system

The industry coding follows the Danish activity classifications, Dansk Branchekode 2007 (DB07) from 2008, which is the national version of NACE rev. 2. A complete overview can be found at the DB 2007 site.

## 2.3 Sector coverage

The statistics covers enterprises in agriculture, fishery and aquaculture with more than a half manyear work load.

## 2.4 Statistical concepts and definitions

Accounting Items: These items are derived from the accounts of the enterprises and concern turnovers, various types of cost, cost of goods consumed, assets liabilities and investments.

Average: The average is estimated for each industry (or size group, etc.) on the basis of the summed up figures for the relevant accounting items. Consequently, the figures of large enterprises have greater weight than the figures of small enterprises.



Costs of Goods Consumed: This is consumption which is part of turnover i.e. purchases of raw materials, finished goods and energy plus/less changes in stocks.

Current Assets: Stocks, liquid funds, debt receivable and easily realizable securities, which are not intended for permanent ownership.

Employees: Employees employed with the enterprise in terms of full-time equivalent persons (manyears).

Enterprise: This usually corresponds to the legal unit e.g. limited liability companies, sole traders, partnerships etc. In a few cases, several legal units are run as one entity. The units are merged into one enterprise.

Equity: Equity is measured in per cent of total liabilities (at the end of the year).

Equity Capital: The owners part of the capital of the enterprise. This is estimated as total assets less the sum of provisions for liabilities and debts.

Establishment: An enterprise or a part of an enterprise, that is situated in a single location and produces one - or mainly one - sort of goods and services.

Financial Expenses: Interests, capital losses on securities and foreign loans, commission and expenses for custody etc.

Financial Receipts: Receipts from interests, commission, capital gains from securities and foreign loans, dividend from shares and partnership shares, etc.

Fixed Assets: Part of the capital of the enterprise, which is meant to be kept, e.g. buildings, machinery, equipment, patents, licenses and long-term investments of a financial character e.g. shares and bonds.

Form of Ownership: Enterprises may be distinguished according to legal type e.g. limited liability companies, sole traders and partnership etc.

Gross Profit Ratio: Gross profit in per cent of turnover. Gross profit is estimated as turnover less cost of goods consumed less subcontracts and other work done.

Investments: Increase and decrease of fixed assets, i.e. real property (land, buildings, etc.) and operating equipment (machinery, motor vehicles, equipment, etc.) and intangible assets (software, licenses, etc.). Increase is estimated at acquisition price before depreciations and other adjustments and include purchased as well as leased assets. Decrease is valued at selling price, or if this is not known then the written-down value.

Kind of Activity: This concept, which is sometimes termed branch or industry, refers to the 6-digit code number found in the Danish activity classification (DBo7) from 2008. The agricultural enterprises is classified by a key from the calculated typology based on the land use and livestock.

Long-Term Debts: Debts payable later than 1 year, e.g. mortgage debts.

Median: The median is obtained by calculating the key figure in the question for each enterprise with the industry (or size group, etc.) and subsequently, the enterprises are sorted by their size in accordance with this key figure. The median is equal to the key figure for the enterprises, which is grouped exactly in the middle of the row that has been sorted. The figures of large enterprises have greater weight than the figures of small enterprises.

Net Profit Ratio: Result from ordinary operation (profit before financial and extraordinary items) measured in per cent of the sum of turnover and other operating income.

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Number of Persons Employed: Information is available on the number of persons employed and hours of work in enterprises with personal liability as well as limited liability companies.

Other Operating Income: This is income which is not directly related to the primary or ordinary activity, including refunding of sickness benefits and public wage and salary subsidies.

Provisions for Liabilities and Charges: Obligations where the exact amount or due date are not known with certainty, e.g. deferred taxation and pension liabilities.

Return on Equity after Corporate Tax: Return after corporate tax measured in per cent of the average of equity during the year. On the basis of the available data material it is not possible to estimate precisely the average of equity, which implies that a rough estimate is made as follows: Equity at the end of the year less half of the consolidation item. The latter item shows the amount of the years result that has been transferred to (or from) equity.

Short-Term Debts: Debts payable within 1 year, e.g. trade creditors and payable VAT.

Size Groups: The enterprises can e.g. be divided into terms of size on the basis of the number of employees converted into full-time equivalent persons (man-years).

Turnover: This covers Income from sales of products and services resulting from the primary operation of the enterprise. Turnover is estimated after the deduction of discounts and exclude duties, etc. which are directly linked to sales. The item also includes work performed by the enterprise at the expense of the enterprise and entered under assets, e.g. construction of own machinery.

Value Added: Turnover plus operating income minus consumption of goods and services.

Value Added (per cent): Value added in per cent of turnover and other operating income.

#### 2.5 Statistical unit

The units in the accounts statistics for the primary industries are the enterprises in the different branches.

#### 2.6 Statistical population

The population in the accounts statistics on primary industries is agricultural, fishery and aquaculture enterprises which has a workload of more than half a man-year. The delimitation of the workload is due to comparability to the accounts statistics on private non-agricultural industries.

#### 2.7 Reference area

Denmark.

# 2.8 Time coverage

The statistics covers the period from 2008 and forward.



#### 2.9 Base period

Not relevant for these statistics.

#### 2.10 Unit of measure

The variables are measured in four different units; numbers, 1,000 DKK, million DKK and pct.

## 2.11 Reference period

The accounts statistics are related to calendar-based annual accounts (January 1th - December 31th),

## 2.12 Frequency of dissemination

The statistics are published once every year.

## 2.13 Legal acts and other agreements

The EU regulation of the accounts statistics in the primary industries is:

- Agriculture: Council regulations (EC) 1217/2009/EEC as amended contains the obligations of Denmark in relation to EUs Farm Accountancy Data Network. Among the most important regulations are Regulation (EC) 220/2015 (accounts questionaire), Regulation (EC) 1198/2014 (selection of holdings) and Regulation (EC) 730/2013 (deadlines, payment, etc.). The regulations can be viewed in EUs database on legislation.
- Fishery and Aquaculture: Council regulation (EC) 1004/2017 determines the obligations of Denmark for collecting, manage and use of data in relation to DG Mare. Another important regulations are Regulation (EC) 1251/2016 and (EC) 665/2008 which concerns rules of implementation.

## 2.14 Cost and burden

No response burden is estimated as participation in the survey is voluntary.

#### 2.15 Comment

Additional information can be obtained from Statistics Denmark.

## 3 Statistical processing

The preparation of data is mainly done when the accounts statistics on agriculture, fishery and aquaculture is made. Data is checked carefully on a individual basis.



#### 3.1 Source data

These statistics are based on the existing statistics for agriculture, fisheries and aquaculture.

The main source for compiling the agricultural statistics is accounts data for farms, whose accounts are prepared by accounts offices, which are organized within the Danish Agriculture and Food Council. The data for the statistics are collected electronically from the accounts system Ø90, where additional and necessary information is supplemented by the accounts offices. In addition to this, accounts data for a small number of enterprises are collected from private accounts offices, which report the data electronically on questionnaires. Another source is the Business Registers maintained by Statistics Denmark. The register forms the basis for determining the population. Information from the Danish Agricultural Agency on the population of organic farms and register-based data on paid-out subsidies are used.

The accounts statistics for fishery is based on obtaining data from the accountants by using a standardized electronic questionnaire. The databases from the Danish Fisheries Agency is the basis for the number of units, grouping of the population and stratification, selection and weighting of the holdings. Statistics Denmark receives information on production, production facilities and ownership of each registered vessel when each years production is counted. These data is used as boundaries for the economic units and workplaces. Another source is logbooks. Registers from The Danish Fisheries Agency are used to investigate each accounts connected to a verification of workplaces- and capital outlays and efforts per vessels in cooperation med DTU-Aqua.

The accounts statistics for aquaculture is based on data from accountants. In addition, data from The Danish Fisheries Agency aquaculture register and the municipalities registers of aquaculture and marine are used. Accounts for the statistics on aquaculture are mainly ending in the period June 30th to December 31th of the previous year.

More information can be found in the documentation of statistics on <u>agriculture</u>, <u>fishery</u> and <u>aquaculture</u>.

## 3.2 Frequency of data collection

Data is collected on a yearly basis.

#### 3.3 Data collection

The accountancy offices organized in the Danish Agriculture and Food Council reports electronically through the accountancy system Ø90, where the accounts are supplied with additional necessary information. The private accountancy offices report on an electronic questionnaire. Most of the accounts on horticulture are reported by the private accountancy offices whereas the main part of the agricultural accounts is reported by the offices organized in the Danish Agriculture and Food Council.

The collection of accounts for the statistics on fishery and aquaculture is based on standardized electronic questionnaire.

#### 3.4 Data validation

The data validation is done in the accounts statistics on agriculture, fishery and aquaculture. See more in the documentations of statistics on agriculture, fishery and aquaculture.



#### 3.5 Data compilation

Data from the accounts statistics on agriculture, fishery and aquaculture are converted into the Danish industrial classification, so data is comparable to the statistics on non-agricultural industries. More information on the data validation can be found in the documentations of statistics on agriculture, fishery and aquaculture.

## 3.6 Adjustment

Not relevant for these statistics.

#### 4 Relevance

The statistics is relevant because it compares the statistics on the primary industries to the statistics on non-agricultural accounts. In addition it is also input to the national accounts.

#### 4.1 User Needs

The users are the Danish authorities, including particularly the Ministry of Food, Agriculture and Fisheries, researchers and national and international students, organizations in agriculture, fishery and aquaculture and enterprises broadly related to the sectors, e.g. credit grantors.

The data collected for the agricultural statistics are used as basis for projections in the section concerning short-term statistics in the publication, Economics in Agriculture from the Institute of Food and Resource Economics, Copenhagen University. Data from the fishery statistics are used in the forecasting model for the publication, Economics in Fishery, which is also published by the Institute of Food and Resource Economics, Copenhagen University.

Data are submitted to EUs information network for Agricultural Book-Keeping (French RICA, English FADN) and for the fishery and aquaculture statistics to EU DG Mare. The data is used as basis for decision-making in agriculture and fishery at national as well as EU level.

#### 4.2 User Satisfaction

The user satisfaction of the statistics is good. Especially that the statistics is produced so it is possible to compare the primary industries with the non-agricultural private sectors.

The user satisfaction on the 3 accounts statistics on agriculture, fishery and aquaculture is also good.

## 4.3 Data completeness rate

The accounts statistics on agriculture, fishery and aquaculture is not delivered to Eurostat. The accounts on agriculture are delivered to FADN in respect of (EU) 220/2015, while accounts on fishery and aquaculture are delivered to EU DG Mare in respect of (EU) 1004/2017.



## 5 Accuracy and reliability

The statistics are compiled on the basis of a sample population and consequently, the results are subject to some degree of statistical uncertainty. However the reliability on the statistics is considered to be good. This assessment is based on a representation of agricultural land, livestock and turn-over for fisheries and aquaculture.

## 5.1 Overall accuracy

The statistics are compiled on the basis of a sample population and consequently, the results are subject to some degree of statistical uncertainty. The statistical uncertainty differs for each individual item, and the largest degree of uncertainty is seen for the item investments, which may vary considerably among the farms or over time.

The overall accuracy is considered high. From the population of small enterprises, where the variation is small, a relatively small sample is selected, while from the population of large farms, where the variation is greater, a larger sample is used.

## 5.2 Sampling error

Uncertainty calculations are not calculated for the statistics. The publication mentioned below about agriculture has a chapter about reliability for some main figures in the statistics.

## 5.3 Non-sampling error

Uncertainty calculations are not calculated for the statistics.

#### 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 quality of the accounts statistics on primary industries is valued to be high. It is calculated on basis of the 3 accounts statistics on agriculture, fishery and aquaculture, which all are considered to be of a high quality. The sample size for agriculture is about 7 per cent while data for more than half of the population of aquaculture and fisheries enterprises are collected.



#### 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. 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 figures are estimated.

## 6 Timeliness and punctuality

The statistics are published every and are expected to be published in April, 16 month after the ending of the accounting year.

## 6.1 Timeliness and time lag - final results

The statistics are published every and are expected to be published en April, 15 month after the ending of the accounting year.

#### 6.2 Punctuality

The statistics are published to the announced schedule.

# 7 Comparability

The main purpose of the accounts statistics for the primary industries is that the results from the primary industries are comparable with the non-agricultural industries.

Internationally the accounts data on agriculture are delivered to FADN while the accounts statistics on fishery and aquaculture is delivered to DG Mare, which compares the results with other EU countries.

## 7.1 Comparability - geographical

The collected data to the agricultural accounts statistics is delivered to FADN. The EU statistics can be seen in the FADN public database.

The accounts statistics for fishery and aquaculture delivers data to EU DG MARE.



## 7.2 Comparability over time

The present statistics are comprised by the same classification as the accounts statistics on non-primary industries and it has been published since 2008 and forward.

A comparable time series, going back to 2008 is based on *standard output*, *SO*. Closed time series for agriculture, horticulture and organic farming are published going back to 1990, 1995 and 1996 respectively, but finishing in 2009, with the typology based on *standard gross margin*, *SGM*.

A comparable time series for accounts statistics for fishery is calculated back to 1996 while the accounts statistics for aquaculture are comparable back to 2004.

Break in series, regarding 031 fishery, due to changes in calculation of value of quotas. It affects the following variables which is not comparable from 2011 to 2012: Intangibles fixed assets (DKK millions), Fixed assets, total (DKK millions), total assets = total liabilities (DKK millions), Capital and reserves (DKK millions), Provision for liabilities and charges (DKK millions) and all variables concerning Investments. Further information can be found in the quality declaration for fishery accounts statistics.

#### 7.3 Coherence - cross domain

The accounts statistics for primary industries is compiled, so the results from the primary industries are comparable with the private non-agricultural industries.

#### 7.4 Coherence - internal

Data is based on harmonized accounts.

## 8 Accessibility and clarity

The statistics are available from <u>StatBank Denmark</u>. The statistics is not published other places than in StatBank Denmark.

## 8.1 Release calendar

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

#### 8.2 Release calendar access

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

#### 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.

#### 8.4 News release

Not relevant for these statistics.



#### 8.5 Publications

Not relevant for these statistics.

#### 8.6 On-line database

- · Accounts statistics by industry
- Key figures in per cent for accounts statistics by industry

#### 8.7 Micro-data access

The basic material is available from accounts databases. On the basis of data extracted from the databases, statistical files at individual level are created. Tables for publications are constructed on the basis of the statistical files. Researchers and students may on request gain access to data that are made anonymous at individual level.

#### 8.8 Other

Not relevant for these statistics.

## 8.9 Confidentiality - policy

In the compilation of the accounts statistics by industry, the confidentiality policy of Statistics Denmark is followed Link, in Danish.

## 8.10 Confidentiality - data treatment

Discretion of data is used if it is valued to be necessary. data is not published if it is possible to indentify enterprises.

#### 8.11 Documentation on methodology

A brief description of methods is given in the annual publications.

#### 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 this statistics is in the division of Food Industries. The person responsible is Henrik Bolding Pedersen, tel. +45 3917 3315, e-mail: hpe@dst.dk.

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