

Environmental Accounts for Denmark (NAMEA)

0 Administrative Information about the Statistical Product	Latest update September 27 2013
0.1 Name Environmental Accounts for Denmark (NAMEA)	Table of contents 0 Administrative Information about the Statistical Product
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0.4 Purpose and History The purpose of the Danish environmental accounts is to combine economic information with data concerning resources and pollution in a logical and coherent way. The Danish environmental accounts system is of the NAMEA type (NAMEA - National Accounting Matrix including Environmental Accounts). The system is internationally used, and is constructed as a "satellite accounting system" to the national accounts.	Shortcut to this page www.dst.dk/declarations/918

The current publication of the Danish NAMEA was initiated in 1999 and is brought to an end in 2010.

From 2013, the publishing of parts of the Danish environmental accounts has been taken up again. Please see the quality declaration for the Danish Environmental Accounts.

0.5 Users and Application

External users of the environmental accounts are ministries, business and trade organizations, research institutes and engineering consultancy firms who want a general view of the interactions between the economy and the environment. Linking the input-output calculations to the environmental accounts makes it possible to examine the interaction between economic activity and the emissions of different polluting substances. The interaction between different types of demands (e.g. private consumption, exports, etc.) and emissions can also be monitored

0.6 Sources

The environmental accounts and the associated input-output calculations are based on:

The input-output statistics (see the declaration of contents, Input-Output Tables).
The energy statistics (see the declaration of contents, Energy Accounts).

The air emissions accounts are based on:

Technical information on emissions and emission inventories obtained from the Danish National Environmental Research Institute.

Information obtained from the Danish Energy Agency and the Norwegian Institute for Air Research/EMEP-collaboration (Co-operative Programme for Monitoring and Evaluation of the Long Range Transmission of Air Pollutants in Europe).

The water accounts are based on:

Information in Statistical News: Environment and energy; Use of drinking water (Statistiske efterretninger, Miljø og energi; Forbruget af drikkevand).

Information on the reimbursement of water tax levied on tap water

Green accounts from a few businesses.

Statistics on taxes and subsidies that are related to environmental issues is based on:

Information in the Public Finance's publication, Skatter og afgifter, together with news, Offentlige miljøudgifter og -indtægter. The distribution of taxes and subsidies that are related to environment is formed against a background of data from the national accounts.

Information on the Danish oil and natural gas reserves is based on:

Data regarding quantities is obtained from the Danish Energy Agency.

Data regarding the calculations of the resource rent is obtained from the national accounts.

The calculations of the monetary value of the oil and natural gas reserves are made in accordance with recommendations from Eurostat.

The Economy-wide Material Flow accounts are based on:

Information concerning weights of materials is obtained from the external trade statistics, the energy accounts as well as statistics on quarrying and statistics on agriculture.

Data regarding weights of fish landings are obtained from the Ministry of Food, Agriculture and Fisheries.

0.7 Legal Authority to Collect Data

Not relevant for this statistics

0.8 Response burden

No direct response burden, since all information is based on existing statistics, cf. 0.6 Sources.

0.9 EU Regulation

No EU regulation.

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1 Contents

1.1 Description of Contents

The Danish environmental accounts are based on an input-output table. The environmental accounts contain information on:

Energy and water use.

Taxes and subsidies related to environmental issues.

Air emissions of the substances CO₂, SO₂, NO_x, CO, CH₄, NH₃, N₂O and NMVOC.

Information on transboundary movements of polluting substances to and from Denmark.

The pollutants' contribution to the greenhouse effect and acidification.

Balance sheets for oil and natural gas reserves in physical as well as monetary values.

Material flows in and out of the Danish economy.

The design of the environmental accounts ensures that the information immediately can be used for input-output analyses of the interaction between the economic activities and e.g. air emissions of some of the above-mentioned substances.

1.2 Statistical Concepts

The environmental accounts are based on the Danish economic activities, whether these take place on the Danish territory or outside the Danish territory. These activities are based on the 130-industry classification which is based on the Danish Industrial Classification of All Economic Activities 2003 (Dansk Branchekode 2003).

In addition, the Material Flow Accounts are classified following the EU combined nomenclature on trade and UNs corresponding classification, Standard International Trade Classification (SITC).

The Material Flow Account is classified following the EU terminology on EW-MFA (Economywide Material Flow Accounts).

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2 Time

2.1 Reference Period

The environmental accounts refer to the calendar year. Flow items refer to transactions, which have taken place during the year. Stock items are accounted for at the beginning and end of the year.

2.2 Date of Publication

The Statistics was published yearly.

2.3 Punctuality

The environmental accounts were normally published without delay in relation to the scheduled publication.

2.4 Frequency

Annually.

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3 Accuracy

3.1 Overall accuracy

Economic data:

The accuracy of the national accounts data is constantly maintained by making a balancing process at a very detailed level. The accuracy of the input-output tables is affected by the assumptions that are made during the production of the tables.

Energy data:

There is a substantial variability in accuracy for the various industries. For some industries data is a result of specific surveys. For other industries the data on energy use is broken down by weighing the residual, and is therefore less reliable.

Emissions data:

There is a substantial variability in accuracy for the various industries, since the starting point for calculations of emissions is the energy data (cf. above). Add to this a substantial variability in the technical emission factors for the various industries.

Water use data:

Data on total water use must be considered to be accurate. Data on water use for individual industries is less accurate.

Data on material flows:

Information concerning weights of different material types is based on conversion factors. Therefore, the information on the weights of materials is considered to be less accurate.

3.2 Sources of inaccuracy

The combination of scientific and social science methods, assumptions and calculations in the environmental accounts make it likely that there will be uncertainty attached to the estimations of the physical assets within the different parts of the environmental accounts. The statistical uncertainty of the environmental accounts reflects that of the basic statistical sources. However, the consistency of concepts, and coherent treatment of data over time reduce the inaccuracy.

3.3 Measures on accuracy

Figures on statistical uncertainty have not been estimated.

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4 Comparability**4.1 Comparability over Time**

Since the national accounts aim at comparability over time, the same is the case for the economic data included in the environmental accounts.

The environmental accounts for Denmark are based on a number of economic statistics, as well as information on scientific facts. To this must be added a number of assumptions. Since more information from different sources is gradually entered into the environmental accounts, and since the scientific methods used to estimate the physical impact on the environment are constantly improved, the revision policy for the physical part of the environmental accounts deviates from that of the economic part.

This means that the information for the physical part of the environmental Account constantly will be revised, if new sources or new scientific methods lead to a change in the estimations. This also holds for the information from years that are characterized as final. The final economic data and the energy data are only rarely revised (general revisions).

In this way data for the environment and resources are revised from time to time. For that reason there can be a difference in the environmental accounts from one publication to the next. Normally, however, full consistency over time will be found within the same publication.

4.2 Comparability with other Statistics

Economic data:

The industry classification in the tables is the same as the one found in the national account. The tables can therefore be compared to other statistics based on the industry classification.

Data on energy, environment and resources:

Certain parts of the data on energy can be compared to other statistics. A number of the environmental data (e.g. total CO₂ emissions) that is part of the environmental accounts for Denmark deviates from similar environmental statistics. That is due to different definitions and delimitations.

Information on water use is comparable with the published statistics in Statistical News: Environment and energy; Use of drinking water (Statistiske efterretninger, Miljø og energi; Forbruget af drikkevand).

4.3 Coherence between provisional and final statistics

The final environmental accounts were available about three years after the reference year. Provisional environmental accounts were published about one year from the year in question.

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5 Accessibility

5.1 Forms of dissemination

The current publication of the Danish NAMEA was brought to an end in 2010. The most recent data are for 2008.

From 2013, the publishing of parts of the Danish environmental accounts has been taken up again. Please see the quality declaration for the Danish Environmental Accounts.

News from Statistic Denmark (Nyt fra Danmarks Statistik).

Statistical News (Statistiske efterretninger).

Danish Input-Output Tables and Analyses Imports, Employment and Environment (annually).

Statistics Denmark's online databank (www.statbank.dk).

5.2 Basic material: Storage and usability

It is possible to gain access to the matrices of emissions at a detailed level, i.e. emissions broken down by industries and type of energy etc. together with detailed energy balances and input-output tables at the following link:
www.dst.dk/inputoutput

5.3 Documentation

Bie, Thomas, Simonsen, Bo: NAMEA with Water Extraction and Use. Statistics Denmark 1999.

Eurostat: Economy-Wide Material Flow Accounts and Derived Indicators - A Methodological Guide. European Commission, Eurostat, Theme 2, Economy and Finance, 2001.

Jensen, Helle Vadmand, Pedersen, Ole Gravgård: Danish NAMEA 1980-1992. Statistics Denmark 1998.

Olsen, Thomas: The Danish NAMEA Water Accounts with Examples of Its Use. Statistics Denmark 2003.

Pedersen, Lene Aagaard, Tronier, Christian: 1997 Water Accounts Related to NAMEA. Statistics Denmark 2001.

Pedersen, Ole Gravgård: Fysiske input-output tabeller for Danmark - Varer og materialer 1990 - Energirelaterede emissioner til luft 1990-92. Statistics Denmark 1999. Report in the Danish language.

Pedersen, Ole Gravgård.: DMI and TMR Indicators for placecountry-regionDenmark 1981, 1990 and 1997 - An Assessment of the Material Requirements of the Danish Economy. Rapport til Eurostat, Danmarks Statistik, 2002.

Pedersen, Ole Gravgård: The Danish Environmental Accounts with Examples of Its Use. Statistics Denmark 2003.

Pedersen, Ole Gravgård. Rørmosen Jensen, Peter. Olsen, Thomas: Greenhouse Gas Emissions from the Danish Economy. TemaPubl. 2009:3. Statistic Denmark November 2009.

Rørmosen Jensen, Peter. Olsen, Thomas: Analysis of Air Emissions in Denmark 1980-2001 Time series, Bridge tables, Decomposition analysis. Statistics Denmark 2003.

Weisz, H. et al.: Economy-wide Material Flow Accounting "A Compilation guide". European Commission, Eurostat, 06 August 2007.

5.4 Other Information

A general documentation of the Danish national accounts is available in (Danish) "Nationalregnskab Kilder og metoder". Statistics Denmark 2002.

A general description of environmental accounts and national accounts is available in the Handbook of National Accounting Integrated Environmental and Economic Accounting. ST/ESA/STAT/SER.F/Rev.1 (Final Draft) United Nations et. al. 2003.

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