

Documentation of statistics for Mining and Quarrying 2024



1 Introduction

The mining and quarrying statistics show the amount and type of mining and quarrying in Denmark. The statistics have been made since 1973 but is only comparable since 2006.

2 Statistical presentation

The mining and quarrying statistics are a yearly measurement of extracted raw material types from land and from the sea floor stated in Cubic meters. The statistics are grouped by raw material types, by administrative regions and municipalities.

2.1 Data description

The statistics show trends in the extraction of raw materials in Denmark on land and from the bottom of the sea. It shows the quantitative distribution of types of raw materials and use as well as the geographical distribution of the extraction areas.

2.2 Classification system

Extraction on land: Stone, gravel and sand, quartz sand, granite, chalk and limestone, moler, clay, plastic clay and bentonite, peat and sphagnum and other raw materials: (Kaotin, sandstone, slate, clayey and also soil and top soil).

Some of the variables in the application statistics are divided into the following classifications, (subgroups):

- Sand/gravel/stone: Construction and road materials, asphalt materials, concrete materials, other applications of materials and unknown applications of materials.
- Clay: Ceramic industry, red-burned bricks, yellow-burned bricks, and other applications of clay.
- Chalk and limestone: Cement, flue gas filler, industrial lime, agricultural lime, feed lime, burnt lime, and paper filler.
- Quartz sand: Filter sand, sand for construction, concrete sand, sandblasting sand and other applications of sand.
- Granite: Unknown use.
- Moler (diatomaceous earth): Powder, granules, and refractory bricks.

Extraction from the bottom of the sea: Stone, gravel and sand, paddings, stones and shells fished by buckets, other applications.

2.3 Sector coverage

The statistics include the primary industries.



2.4 Statistical concepts and definitions

Extractor: Person or company who has been given permission to extract raw materials granted by LBK nr 124 af 26/01/2017 (Bekendtgørelse af lov om råstoffer) or BEK nr 1680 af 17/12/2018 (Bekendtgørelse om efterforskning og indvinding af råstoffer fra søterritoriet og kontinentalsoklen)

Extraction area: Area with permission to extract raw materials granted by LBK nr 124 af 26/01/2017 (Bekendtgørelse af lov om råstoffer) or BEK nr 1680 af 17/12/2018 (Bekendtgørelse om efterforskning og indvinding af råstoffer fra søterritoriet og kontinentalsoklen)

Mining and Quarrying: Extraction of raw materials from land comprises stone, gravel and sand, Quarts sand, granite, clay, plastic clay and betonite, moler, chalk and limestone, peat an spagnum and other raw materials. Extraction of raw materials from the sea comprises sand, gravel and stone, gravel, padding, stone fished by buckets, shells fished by buckets and other applications

2.5 Statistical unit

The statistics are based on the raw materials which can be classed according to the Raw Materials Act (Råstofloven): Stone, gravel and sand, granite, chalk, etc. The statistics are divided into raw materials on land and from the bottom of the sea.

2.6 Statistical population

Anyone who extracts raw materials from land or sea

2.7 Reference area

The extraction of raw materials on land is distributed by county and municipality, after 2007 the distribution is instead on the municipalities and the new regions. Raw materials from the bottom of the sea are geographically distributed by area of water (place of extraction), and by municipality (port of discharge). The extraction of oil and natural gas is not a part of this statistics.

2.8 Time coverage

The statistics cover the period from 2006 onwards. Older time series are described under Comparability over time.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

The unit of measure is cubic meters.

2.11 Reference period

01-01-2024 - 31-12-2024



2.12 Frequency of dissemination

Yearly

2.13 Legal acts and other agreements

LBK nr 124 af 26/01/2017 Bekendtgørelse af lov om råstoffer, BEK nr 788 af 23/06/2014 Bekendtgørelse om ansøgning og indberetning om råstofindvinding på landjorden [...], LBK nr 610 af 30/05/2018 Lov om Danmarks Statistik, BEK nr 1680 af 17/12/2018 Bekendtgørelse om efterforskning og indvinding af råstoffer fra søterritoriet og kontinentalsoklen

2.14 Cost and burden

The Regions collects data and submits data to Statistics Denmark via a system to system solution. The burden is unknown.

2.15 Comment

Further information can be found at the <u>subject page</u> for these statistics, or by contacting Statistics Denmark directly.

3 Statistical processing

Data are annually collected from all extractors on land. The reported data are controlled for errors by comparing changes over time in the municipalities and for the totals for each resource category. Figures for raw materials extracted from the sea are controlled for errors in the same way.

3.1 Source data

The five regions collect figures for all extractors and pass them to Statistics Denmark. Figures concerning the extraction of raw materials from the sea are received from the Ministry of the Environment.

3.2 Frequency of data collection

Data is collected annually.

3.3 Data collection

Data on mining and quarrying on land is collected by The Danish Regions and transferred to Statistics Denmark through a system to system solution.

Data on the extraction of raw materials from the sea is received and treated by the Ministry of the Environment.



3.4 Data validation

Reported data is subject to error checking by Statistics Denmark. The individual reporter's extraction for the current period is reviewed. If the reported extraction deviates significantly from expectations, the reporter is contacted to verify the accuracy of the submitted data. It is assumed that not all errors in the reports are detected during the error-checking process, and therefore the statistics may carry a certain degree of uncertainty related to misreporting. The error-checking process focuses specifically on the reports that have the greatest impact on the statistics, and under normal circumstances, the uncertainty associated with misreporting is considered to be quite small.

3.5 Data compilation

Mining and quarrying statistics are a census. Data is being validated and figures are published at an municipality, regional and national level.

3.6 Adjustment

Not relevant for these statistics.

4 Relevance

There is great interest for the published figures on raw materials among the Regions, which use the statistics to make extraction plans. The statistics are also requested by municipalities, industry organizations, other public and private institutions, researchers, companies and the news media. The statistics are used in the compilation of the environmental-economic accounts in the national accounts.

4.1 User Needs

These statistics are used by regions, municipalities and ministries for planning and managing raw material extraction. Industry organisations, researchers, the media and businesses also use the statistics for analysis, communication and debate. In addition, the statistics are used in the compilation of the environmental-economic accounts in the national accounts.

4.2 User Satisfaction

Users seem satisfied with the statistics. There has to date never been a user satisfaction survey.

4.3 Data completeness rate

Not relevant for this Statistics

5 Accuracy and reliability

These statistics are based on a full census with complete coverage, as all extractors of raw materials are required to report. The data form the basis for taxation and are verified by the authorities, who already have a good overview of the quantities extracted.



5.1 Overall accuracy

All extraction sites are obliged to submit data to The Regions and the Ministry of the Environment. The data is very accurate. They represent a compilation of figures on the total extraction of raw materials, and the statistics provide the base for the duties which the extractors have to pay to the state. Misstatements will in most cases be discovered quickly as the responsible authority has fairly precise expectations as to the types and volumes of extracted materials.

5.2 Sampling error

The mining and quarrying statistics are based on a census sample. The sample error is o

5.3 Non-sampling error

It is assumed, that there are no other uncertainties.

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

All Extraction sites are obliged to submit data to The Regions and the Ministry of the Environment. The data is very accurate. They represent a compilation of figures on the total extraction of raw materials, and the statistics provide the basis for the duties which the extractors have to pay to the state. Misstatements will in most cases be discovered quickly as the responsible authority has pretty precise expectations as to the types and volumes of extracted materials.

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 statistics are published.

6 Timeliness and punctuality

These statistics are published about 6 months after the end of the reference period. Publications are generally released on time, as stated in the release calendar.

6.1 Timeliness and time lag - final results

The statistics are published annually and about six months after the end of the reference year.

6.2 Punctuality

Publications are generally released on time, as stated in the release calendar.

7 Comparability

The statistics are comparable at municipal level back to 1980. The data collected and the level of detail have remained unchanged throughout the period. Data quality and reliability are expected to be higher after 1 January 1990, when a raw material tax was introduced, resulting in increased control of the reporting by the authorities. As of 2007, data are compiled according to the new municipal and regional structure, and reliability is considered slightly lower than before 2007 due to problems with implementation of the new municipality-reform in 2007.

7.1 Comparability - geographical

There is no EU regulations or international standards, making comparability with other international statistics difficult.

7.2 Comparability over time

The statistics can be compared at the municipal level from 2006 onwards. Due to the the new municipality-reform in 2007, statistics before that time are aggregated at another level, and cannot be compared directly. Raw materials extracted from the sea are comparable back to 1990. However, the StatBank table RST04 (Discharge of raw materials from the sea (1,000 m³) by area and type of raw material) is only comparable from 2007 onwards. For the period before that (1990–2006), the statistics are based on the former municipalities and counties prior to the municipal reform.



7.3 Coherence - cross domain

Sales of goods by manufacturing industries: The statistics on Sales of goods by manufacturing industries contain information on, for example, turnover, from enterprises engaging in manufacturing and the extraction of raw materials. When comparing data from the statistics on Sales of goods by manufacturing industries and the statistics on raw materials, the following should be noted: In the statistics on Sales of goods by manufacturing industries, the turnover variable contains turnover of own products. Some of the extractors use the raw materials as an input in their own production. Such products will not be included in the statistics on Sales of goods by manufacturing industries but only in the statistics on raw materials. Where the extractors belong to an industry outside manufacturing, for example contractors, other construction industry, agriculture, the transport industry and other manufacturing activities, the raw materials are only included in the statistics on raw materials. Many raw materials are extracted by enterprises with less than ten employees. These raw materials are only included in the statistics on raw materials. Finally salt is considered similar to other raw materials in the statistics on Sales of goods by manufacturing industries whereas salt is in fact a separate item in the statistics on raw materials.

Industrial energy consumption: The statistics on Industrial energy consumption contain information on, for example, turnover, employment, energy consumption and different accounting data for extractors belonging to the mining industry. Some of the estimations include only enterprises with more than 20 employees while others include only enterprises which are registered as cooperative societies or private limited companies. The share of the population of extractors included in these estimations differs, and it is far from the total population, as can be seen in the statistics on the extraction of raw materials.

National Accounts: In the National Accounts, the category mining and quarrying covers the extraction of oil and natural gas as well as other raw materials. What is referred to as other raw materials in the National Accounts includes sand, gravel, stone, etc., which are the primary focus of the Mining and quarrying statistics.

7.4 Coherence - internal

There are no sources for possible internal inconsistency.

8 Accessibility and clarity

These statistics are published yearly in a Danish press release, at the same time as the tables are updated in the StatBank. In the StatBank, these statistics can be found under the subject <u>Mining and quarrying</u>. For further information, go to the <u>subject page</u>.

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.

8.5 Publications

Not relevant for these statistics.

8.6 On-line database

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

- RSTo4: Unloading of raw materials from the bottom of the sea by region, type of raw material and time
- RST3: Extraction of raw materials in Denmark. by region, type of raw material and time
- RSTo1: Extraction of raw materials in Denmark. by region, type of raw material and time

8.7 Micro-data access

Researchers may be granted access to micro data through Statistics Denmark's research service arrangement.

8.8 Other

Nor relevant for this statistics

8.9 Confidentiality - policy

In the compilation of the Mining and Quarrying in Denmark, the confidentiality policy of Statistics Denmark is followed Datafortrolighedspolitik.

8.10 Confidentiality - data treatment

When a detailed industry figure is affected by confidentiality issues, no figures are published, but they are included in overlying aggregates.

8.11 Documentation on methodology

No further documentation exists.

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 Morten Skovrider Kollerup, tel.: + 45 2129 5576, and e-mail: MSL@dst.dk.