

# Geography, environment and energy

Climate and area

Infrastructure

Environment

Energy



## Climate and area

### The long Danish coastline

Denmark is a small country, compared to its closest neighbours. Sweden and Germany are, respectively, ten times and eight times larger than Denmark, which has an area of more than 43,000 km<sup>2</sup>. On the other hand, Denmark's coastline is extraordinarily long for a country of this size. Denmark stretches along a coast of more than 7,300 km, which is longer than the Great Wall of China. It corresponds to almost one and a half metre of coast per inhabitant.

One characteristic of Denmark's geography is the many islands, a total of 391. The largest islands are, by order of mention, Sjælland, Vendsyssel-Thy, Fyn, Lolland and Bornholm. Jutland (including Vendsyssel-Thy) account for 69 per cent of Denmark's total area.

In addition to Denmark, the Kingdom of Denmark includes the self-governing areas of Greenland and the Faroe Islands. The ice-free part of Greenland is almost ten times larger than Denmark and Denmark is 30 times larger than the Faroe Islands.

### Denmark's nature is characterized by agriculture and forests

For thousands of years, Denmark has been an agricultural country, and this has largely characterized the Danish landscape. Consequently, two thirds of the landscape consists of man-made agricultural areas. However, forests are also evident in the landscape in the form of, among other types, deciduous forest and coniferous forest. Rold Skov and Gribskov are the largest forests.

Figure 1

Distribution of Denmark's area by type of area - correction

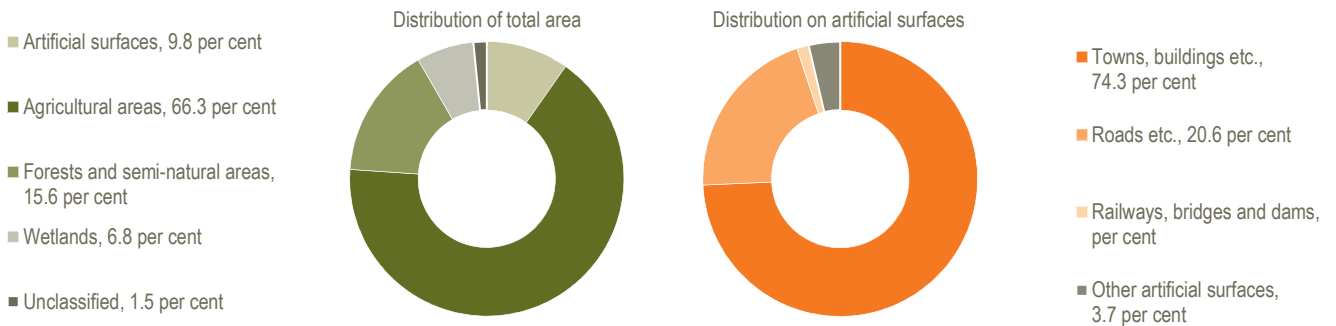


Table 402

### Man-made infrastructure and buildings characterize the landscape

Cities, roads, railroads, bridges and other types of man-made surfaces cover a total of 10 per cent of Denmark's area, corresponding to three times the area of the Faroe Islands – or 56 per cent of Sjælland. Urban centres, such as residential neighbourhoods and industrial districts, dominate and account for three-fourths of the man-made surfaces.

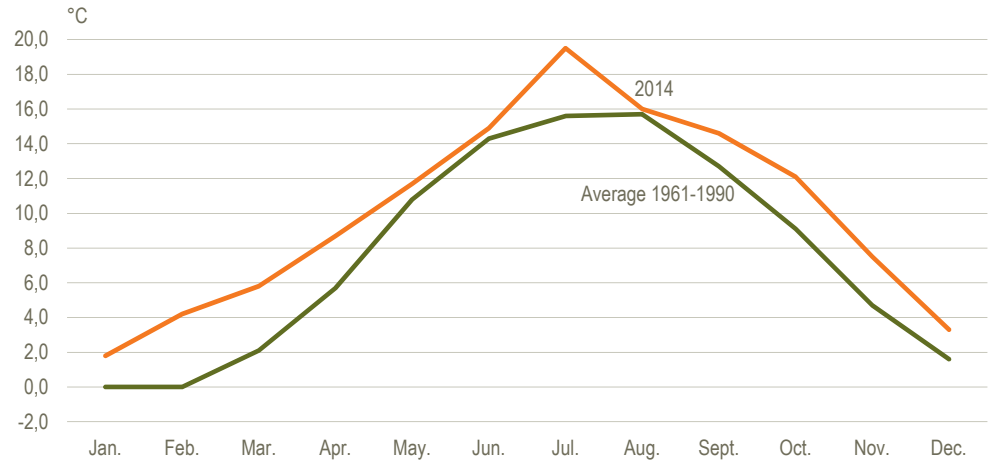
### It rains or snows every other day

The Danish weather is known for being variable. It is a fact that it rains or snows every other day in Denmark, since a year has an average of 171 days of precipitation.

**Snow seven days a month during the wintertime**

Denmark has mild winters without large amounts of snow, but with much rain. On average, it snows seven days every month in December, January and February. This decreases to five days of snow in March, and April has an average of three days of snow.

**Figure 2** Temperatures in Denmark



Source: www.dmi.dk

**Temperature variations of 16 °C during a year**

In a year, the average temperature generally varies from 1 °C in January to 20 °C in August. Great variations occur in relation to the average. The coldest day in more than 100 years was a January day in 1982 with temperatures of -31 °C, and the warmest day was an August day in 1975 with temperatures of 36 °C.

**”... and it will be overcast again today”**

A natural feature of everyday life in Denmark is overcast days and many clouds in the sky. The clouds cover an average of two thirds of the sky in a year, but the summer is the least cloudy season with an average cloudiness of 60 per cent.

**Not many days of sunshine in a year**

Denmark is a country where the total hours of sunshine a year gives occasion to enjoy the sun while it is out. There is an average of four hours of sunshine a day, naturally primarily during the spring and summertime. From May to August, there are more than six hours of sunshine a day.

## Infrastructure

### Extension of motorways and dual-carriageways

There were 74,407 km of public roads in Denmark on 1 January 2014. After the restructuring of the administrative regions in 2007 the new municipalities took over the administration of the earlier locally oriented county roads, while the state took over the administration of the other primary roads of the former counties. The state road network comprises 5 per cent of the public road network. The other 95 per cent are administered by the municipalities.

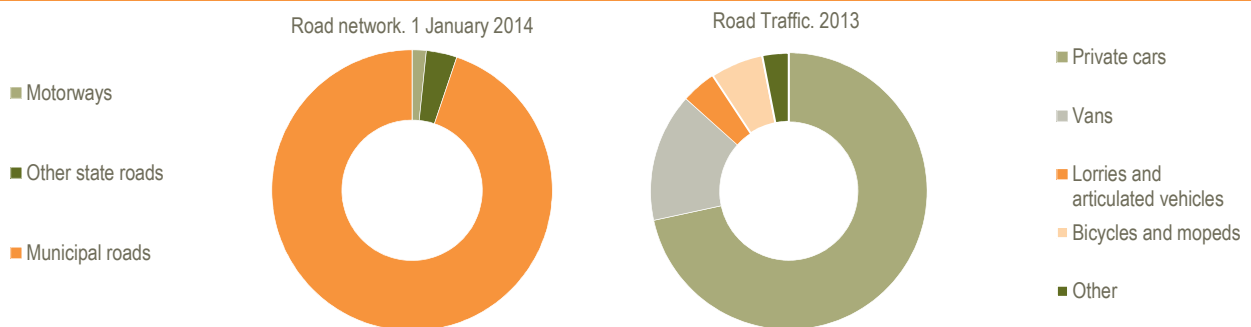
The majority of the public road network (65 per cent) is in Jutland, while the rest is distributed between the Copenhagen region (9 per cent) and the remaining part of the islands (26 per cent).

The public road network has increased by nearly 2,300 km over the past ten years, mainly because of more municipal roads. Simultaneously the principal road network has been enlarged.

Since 2004, the motorway network has been extended by 18 per cent to 1,216 km in 2014, and the length of the dual-carriageways has increased by 15 per cent to 391 km in 2014.

Figure 3

Distribution of road network and of road traffic



[www.statbank.dk/vej11](http://www.statbank.dk/vej11) and [vej20](http://vej20)

### Almost a quarter of the rail network is electrified

The length of the total rail network was 2,636 km on 1 January 2014, the same as the previous year. Viewed in relation to the total area of Denmark, there is 62 km of railway per 1,000 km<sup>2</sup>. The main part of the rail network is operated by the state-owned Banedanmark.

The regional railways are responsible for operating 520 km of rail network and Copenhagen Metro for 21 km. Since 1990, the rail network has decreased by more than 200 km, mainly due to closure, by Banedanmark, of sections carrying goods.

At the beginning of 2014, almost a quarter of the rail network was electrified. This is three times more than in 1990, but unchanged compared to 2013.

### Goods transport by ship is concentrated at 22 sea ports

In 2012, there were 108 Danish ports handling freight. The 22 largest ports each handled more than 1 million tonnes of goods annually, and accounted for 84 per cent of the total goods transport by sea.

In terms of throughput of goods, the ports of Fredericia and Aarhus are the greatest Danish ports handling, respectively, 12 per cent and 9 per cent of total throughput of goods in sea.

#### Ferry and passenger ship traffic is concentrated at 33 ports

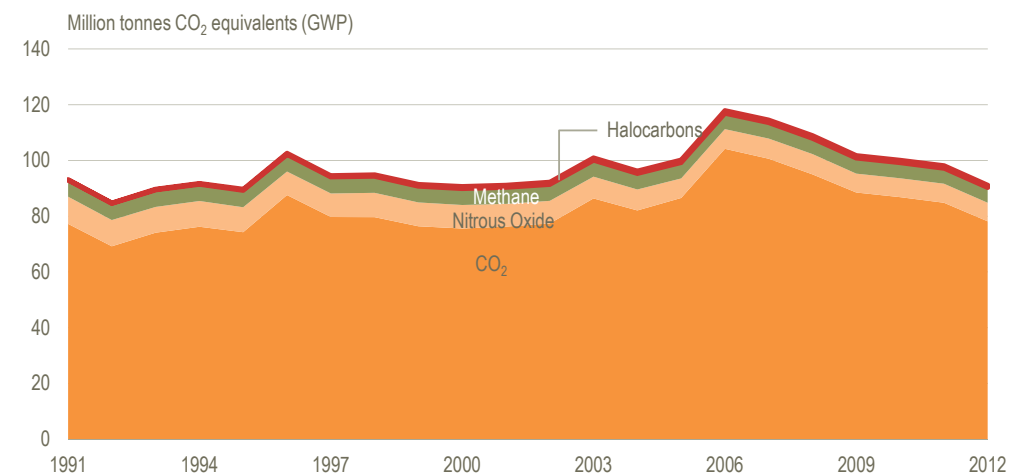
73 ports are engaged in transport of passengers, of which 33 of them have more than 200,000 arriving and departing passengers every year and account for 91 per cent of passengers in Danish ports. The greatest Danish ferry port is Helsingør accounting for 19 per cent of all sea passengers, followed by Rødby Færgehavn with 15 per cent of all passengers in 2013.

## Environment

### Greenhouse gases

86 per cent of the global warming potential from Danish greenhouse gases came from CO<sub>2</sub> in 2012. Methane accounted for 7 per cent, while nitrous oxide contributed 6 per cent. The emissions of halocarbons constituted less than 1 per cent of the total Danish global warming potential. By converting the emissions into CO<sub>2</sub>-equivalents account have been taken for the fact that the effects of the substances on the atmosphere, and, thus, their global warming potentials, are different.

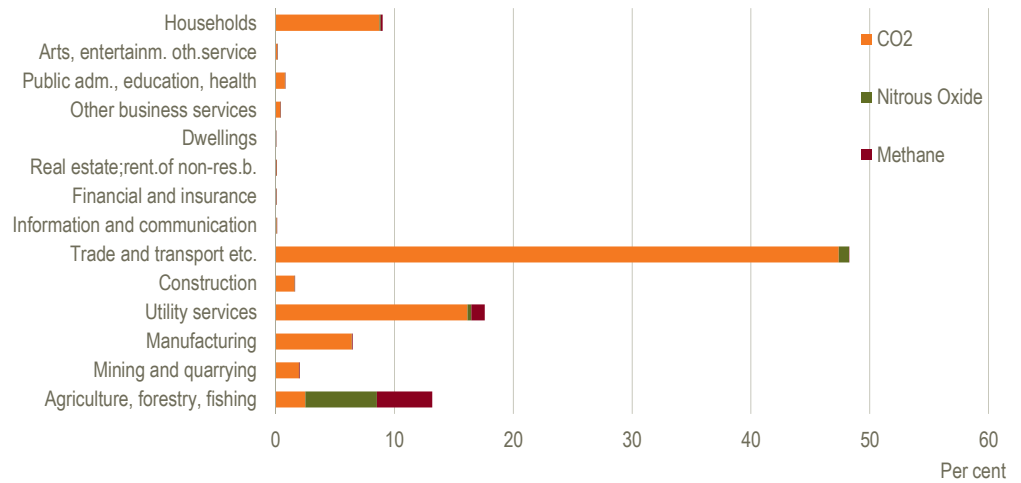
**Figure 4** Greenhouse gas emissions from Danish economic activities



Note: The halocarbons (at the top of the figure) constitute less than 1 million tonnes CO<sub>2</sub>-equivalents and are hardly visible.

### Greenhouse gas emissions from industries and households

When CO<sub>2</sub>, methane and nitrous oxide emissions are taken as a whole and assessed in relation to their global warming potential, in 1990 the industries contributed approximately 87 per cent of all Danish man-made emissions and in 2012 their share had increased to 91 per cent, with households making up the remaining emissions. *Agriculture, fishing and quarrying* contributed 13 per cent of the global warming potential. It is largely due to emissions of methane and nitrous oxide from agriculture, while emissions of CO<sub>2</sub> played a minor role.

**Figure 5 Greenhouse gas emissions from industries and households. 2012**


Note: Emissions are calculated as CO<sub>2</sub>-equivalents (GWP).

In 2012, *utility services* contributed 18 per cent of the global warming potential from greenhouse gases. This includes all Danish production of electricity and district heating. All emissions in connection with production of electricity and district heating come from this industry, while the use of electricity and district heating in the industries and households cause no direct emissions.

*Trade and transport* caused 48 per cent of the global warming potential from CO<sub>2</sub>, methane and nitrous oxide. Included are all emissions from businesses that carry out transport as a service to other businesses and households both in Denmark and abroad. On the other hand, it does not include transport activities carried out by businesses and households on their own behalf, using their own cars and lorries, etc.

#### Environmental related taxes

Denmark's environmental policy involves an increasing use of environmental taxes or more precise environmentally related taxes. Environmental taxes comprise of pollution, energy, resource and transport related taxes.

In 2013, the total revenue generated from these taxes was DKK 79.2 billion, corresponding to around 8.8 per cent of total revenues for taxes and duties.

Total revenue generated from energy related taxes amounted to DKK 45.9 billion DKK in 2013, corresponding to 58 per cent of total revenue from environmental related taxes. In 2013, transport related taxes accounted for 36 per cent of environmental related taxes while resource related taxes accounted for 2.2 per cent and pollution taxes accounted for 4.0 per cent.

**Figure 6 Environmental taxes**


www.statbank.dk/mreg21

## Energy

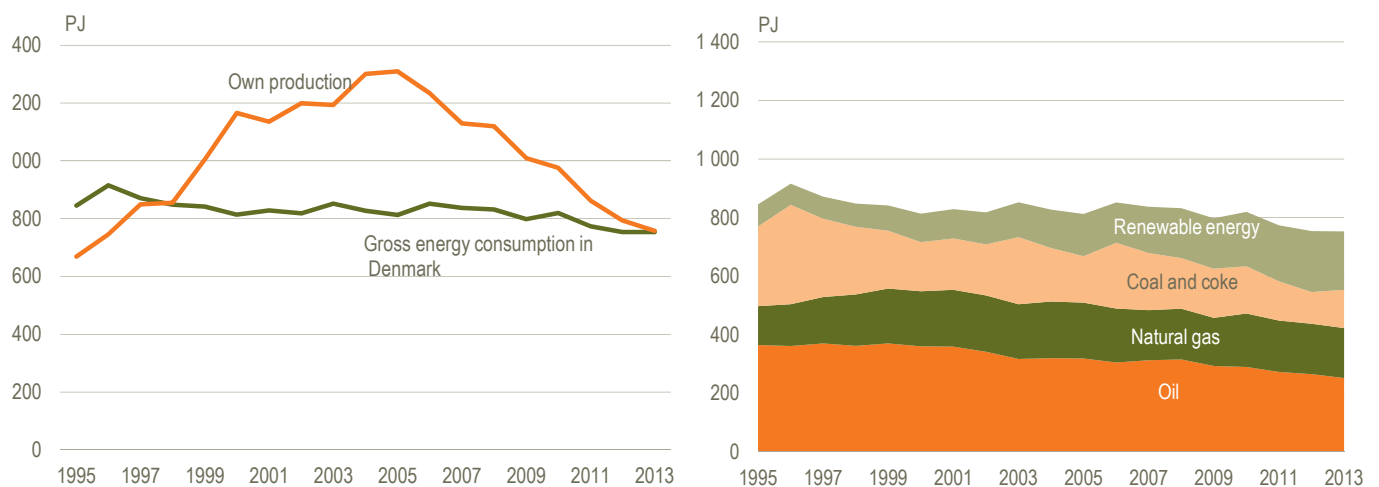
### Denmark self-sufficient in energy

Since 1998, Denmark has been energy self-sufficient due to the extraction of crude oil and natural gas from the North Sea and the production of renewable energy. The total production has increased until 2005.

In 2006 there was a significant decrease in the production of energy, primarily due to a decrease in the production of oil and natural gas. The decrease has continued in the years after, but still, in 2013, the production of energy was at the same level as the total consumption of energy in Denmark.

### Changed composition of the energy consumption

Gross energy consumption consists of oil, natural gas, coal and renewable energy etc. When calculating gross energy consumption, adjustments are made to take into account imports and exports of electricity. Total gross energy consumption was largely unchanged from 2012 to 2013.

**Figure 7 Own production and Gross energy consumption**


www.statbank.dk/ene3h

Since the 90s the composition of energy types have changed significantly. Generally there has been an increase in the consumption of natural gas and renewable energy, while the use of coal has decreased.

**More renewable energy sources**

The consumption of renewable energy has increased over a number of years and now accounts for 27 per cent of the total gross energy consumption. Renewable energy plays a particularly important part with regard to environmental issues like emissions of greenhouse gases and global warming, as an increase in the use of such energy causes a reduction in greenhouse gas emissions by replacing the use of fossil fuels, e.g. coal and oil.

Renewable energy sources include the non-polluting types of energy, e.g. wind power and solar power as well as carbon-dioxide neutral fuels, e.g. hay and wood, which absorb carbon dioxide from the atmosphere during growth, and subsequently releases it again when they are incinerated.



Table 404 Area, population and coastline

	Land and inland water area km <sup>2</sup>	Population 1 January 2014	Density of population per km <sup>2</sup>	Number of islands	Inland water area 1959 km <sup>2</sup>	Coastline 1959 km
<b>All Denmark</b>	<b>42 923,5</b>	<b>5 659 715</b>	<b>131.9</b>	<b>392<sup>1</sup></b>	<b>700</b>	<b>7 314</b>
<b>Provinces</b>						
Byen København	179,3	739 977	4 127.3	13	18	213
Københavns omegn	342,2	535 355	1 564.3	1	...	...
Nordsjælland	1 449,1	452 874	312.5	22	80	248
Bornholm <sup>2</sup>	588,4	39 919	67.8	5	3	141
Østsjælland	807,7	241 870	299.5	15	7	154
Vest- og Sydsjælland	6 415,5	578 610	90.2	102	102	1 707
Fyn	3 478,6	488 578	140.5	96	26	1 130
Syddjælland	8 777,5	717 150	81.7	23	...	... <sup>3</sup>
Østjylland	5 841,5	857 030	146.7	49	...	...
Vestjylland	7 164,7	425 720	59.4	25	...	...
Nordjylland	7 879,2	582 632	73.9	39	...	...
<b>Regions</b>						
Hovedstaden	2 559,0	1 768 125	691.0	41	101	602
Sjælland	7 223,1	820 480	113.6	117	109	1 861
Syddanmark	12 256,1	1 205 728	98.4	119	...	...
Midtjylland	13 006,2	1 282 750	98.6	74	...	...
Nordjylland	7 879,1	582 632	73.9	39	...	...
<b>Faroe Islands</b>	<b>1 396,0</b>	<b>48 679<sup>4</sup></b>	<b>34.9</b>	<b>17<sup>5</sup></b>	...	<b>1 117<sup>6</sup></b>
<b>Greenland</b>	<b>410 449,0<sup>7</sup></b>	<b>55 984</b>	<b>0.1</b>	...	...	<b>44 087</b>

Note: The most southern point in Denmark is Gedserodde on Falster, the most northerly point is near Skagen, the most westerly point is Blåvandshuk, and the most easterly point is Christiansø (Østerskær).

Source: Danish Geodata Agency  
www.statbank.dk/folk1 and are207

<sup>1</sup> Incl. Zealand and Jutland peninsula. <sup>2</sup> Incl. Christiansø. <sup>3</sup> The border with Germany was measured as 67.7 km. In length. <sup>4</sup> 1 December 2014. <sup>5</sup> 1 January 2013. <sup>6</sup> Measured in 1955. <sup>7</sup> Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km<sup>2</sup>, of which 81 per cent is covered by inland ice.

Table 405 Administrative division of Denmark. 2015

	Municipalities	Parishes	Customs and tax regions	Constituencies <sup>1</sup>	
				Counties and large constituencies	Constituencies
<b>Total</b>	<b>98</b>	<b>2 174</b>	<b>35</b>	<b>10</b>	<b>92</b>
<b>The Islands</b>	<b>56</b>	<b>893</b>	<b>17</b>	<b>6</b>	<b>48</b>
<b>Jutland</b>	<b>42</b>	<b>1 281</b>	<b>18</b>	<b>4</b>	<b>44</b>
<b>Region Hovedstaden</b>	<b>42</b>	<b>241</b>	<b>7</b>	<b>4</b>	<b>28</b>
Byen København	4	72	2	1	12
Københavns omegn	13	56	1	1	8
Nordsjælland	11	91	3	1	6
Bornholm	1	22	1	1	2
<b>Region Sjælland</b>	<b>17</b>	<b>420</b>	<b>6</b>	<b>1</b>	<b>12</b>
Østsjælland	5	60	2	}	3
Vest- og Sydsjælland	12	360	4		1
<b>Region Syddanmark</b>	<b>22</b>	<b>521</b>	<b>9</b>	<b>2</b>	<b>21</b>
Fyn	10	232	4	1	8
Syddjælland	12	289	5	1	13
<b>Region Midtjylland</b>	<b>19</b>	<b>636</b>	<b>9</b>	<b>2</b>	<b>22</b>
Østjylland	11	353	5	1	11
Vestjylland	8	283	4	1	11
<b>Region Nordjylland</b>	<b>11</b>	<b>356</b>	<b>4</b>	<b>1</b>	<b>9</b>

<sup>1</sup> In accordance with Act no. 1292 of 8 December 2006 on elections to the Danish Parliament.

**Table 406 Area and population on islands**

Municipality code	Population 1 January 2015	Area in km <sup>2</sup>	Municipality code	Population 1 January 2015	Area in km <sup>2</sup>
<b>All Denmark</b>	<b>5 659 715</b>	<b>43 059.62</b>			
<b>Zealand and its islands</b>	<b>2 444 833</b>	<b>7 473.16</b>	<b>Funen and its islands</b>	<b>488 578</b>	<b>3 489.80</b>
330 Agersø	163	8.08	430 Avernakø	127	5.74
Flere Amager	188 762	96.28	492 Birkholm	11	0.91
390 Bogø	1 097	14.40	430 Bjørnø	32	1.48
370 Enø	363	3.53	420 Bågå	25	6.19
250 Eskilsø	6	1.40	479 Drejø	63	4.28
390 Farø	5	...	479 Frederiksø	1	0.06
370 Gavnø	35	5.65	Flere Fyn	459 635	2 988.62
330 Glænø	49	5.26	410 Fænø	2	3.90
190 Klaus Nars holm	2	0.00	479 Hjortø	8	0.91
390 Langø	2	1.32	482 Langeland	12 432	283.54
390 Masnedø	183	1.71	430 Lyø	95	6.21
390 Møn	9 435	218.31	482 Siø	16	1.43
326 Nekselø	18	2.23	479 Skarø	28	1.96
390 Nyord	38	5.57	482 Strynø	199	4.92
330 Omø	160	4.45	479 Thurø	3 535	7.58
316 Orø	848	15.03	440 Tornø	4	0.24
185 Saltholm	2	16.72	479 Tåsinge	6 100	69.99
326 Sejerø	353	12.50	492 Ærø	6 265	87.51
Flere Sjælland	2 243 297	7 049.27			
101 Slotsholmen	14	0.21			
101 Trekroner	1	0.02	<b>Jutland and its islands</b>	<b>2 582 532</b>	<b>29 710.03</b>
83 named and uninhabited islands	•	11.21	773 Agerø	28	3.49
<b>Lolland-Falster and their islands</b>	<b>1 03 853</b>	<b>1 796.96</b>	727 Alrø	160	7.70
360 Askø	39	2.80	540 Als	50 154	311.39
376 Falster	42 328	513.99	707 Anholt	146	21.75
360 Fejø	460	17.04	580 Barsø	23	2.66
360 Femø	119	11.40	851 Egholm	41	6.06
360 Lilleø	7	0.84	615 Endelave	164	13.23
Flere Lolland	60 896	1 244.97	563 Fanø	3 263	59.60
360 Vejrø	4	1.60	779 Fur	788	21.95
43 named and uninhabited islands	•	4.33	813 Hirsholm	2	0.17
<b>Bornholm and its islands</b>	<b>39 919</b>	<b>589.68</b>	766 Hjarnø	104	3.23
400 Bornholm	39 828	589.32	671 Jegindø	439	7.77
411 Christiansø og Frederiksø	91	0.26	Flere Jyske halvø	2 203 071	23 861.05
3 named and uninhabited islands	•	0.10	580 Kalvø	12	0.19
			820 Livø	9	3.32
			825 Læsø	1 795	112.86
			561 Mandø	40	8.54
			773 Mors	20 788	360.46
			550 Rømø	594	86.56
			741 Samsø	3 733	112.26
			580 Store Okseø	5	0.08
			727 Tunø	111	3.56
			Flere Vendsyssel-Thy	296 697	4 674.24
			671 Venø	204	6.35
			615 Vorsø	1	0.59
			510 Årø	160	5.88
			111 named and uninhabited islands	•	15.11

Note.: The area is based on map10 of the Danish Geodata Agency and Cadastre. In relation to the area in table 405, non-registered areas are also included here, e.g. lakes and roads.

www.statbank.dk/bef4 and are207

<sup>1</sup> Incl. Lindø. <sup>2</sup> Incl. Skalø. <sup>3</sup> Not included in the division of municipalities, administered by the Ministry of Defence.

Table 407

## Land cover

	Km <sup>2</sup>	Per cent
<b>Total area</b>	<b>43 560.76</b>	<b>100.00</b>
<b>Artificial surfaces</b>	<b>4 246.46</b>	<b>9.75</b>
Urban fabric, industrial and commercial units <sup>1</sup>	3 154.63	7.24
Motorway	43.96	0.10
Expressway	9.10	0.02
Road broader than 6 metres	269.02	0.62
Road 3 – 6 metres	551.58	1.27
Railway	58.22	0.13
Bridge	0.02	0.00
Embankment	2.64	0.01
Runway	3.31	0.01
Mineral extraction sites	19.94	0.05
Technical sites	17.46	0.04
Cemeteries	6.96	0.02
Sport facilities	52.18	0.12
Leisure facilities	57.44	0.13
<b>Agricultural areas</b>	<b>28 897.85</b>	<b>66.34</b>
Arable land	28 615.01	65.69
Market garden	33.87	0.08
Pastures	155.18	0.36
Pastures in urban areas	93.72	0.22
Land principally occupied by agriculture, with significant areas of natural vegetation	0.07	0.00
<b>Forests and semi-natural areas</b>	<b>6 788.32</b>	<b>15.58</b>
Forest	1 829.48	4.20
Broad-leaved forest	1 309.40	3.01
Coniferous forest	2 147.34	4.93
Mixed forest	7.98	0.02
Natural grassland	391.92	0.90
Moors and heath land	981.76	2.25
Beaches, dunes and sand plains	51.21	0.12
Sparsely vegetated areas	69.23	0.16
<b>Wetlands</b>	<b>2 274.89</b>	<b>5.22</b>
Meadows	808.89	1.86
Inland wetlands	205.66	0.47
Peat bogs	875.60	2.01
Salt marshes	384.74	0.88
<b>Water bodies</b>	<b>670.59</b>	<b>1.54</b>
Lakes	616.49	1.42
Stream width 8-12 metres	49.42	0.11
Reeds	0.34	0.00
Fish farms	4.34	0.01
<b>Unclassified</b>	<b>682.65</b>	<b>1.57</b>

Note: The figures are based on different primary data covering the period from the end of the 1980s to the middle of the 1990s. Due to different compilation methods figures deviate from figures in table 1. The Primary data are the *land use map; Area Information System* (The Ministry of Environment). Further information can be obtained from: [www.dmu.dk](http://www.dmu.dk). The figures are a revision (not an update) of the collected data. The National Environmental Research Institute conducted the revision in 2001. The classification is based on the three-digit *CORINE land cover nomenclature*, as a fourth number is added for national purposes.

Source: National Environmental Research Institute  
[www.dmu.dk](http://www.dmu.dk)

<sup>1</sup> Include city centres, human locality areas with low buildings, human locality areas with high buildings, built-up areas in rural areas and industrial areas. Roads are excluded.

Table 408 Denmark's 15 largest lakes

Lake's name	Province	2012	Lake's name	Province	2012
		km <sup>2</sup>			km <sup>2</sup>
Arresø	Nordsjælland	39.7	Søndersø	Vest- og Sydsjælland	8.0
Esrum sø	Nordsjælland	17.4	Tystrup sø	Vest- og Sydsjælland	6.7
Mossø	Østjylland	16.5	Tømmerby Fjord	Nordjylland	5.7
Stadil Fjord <sup>1</sup>	Vestjylland	16.2	Julsø	Østjylland	5.6
Saltbæk Vig <sup>1</sup>	Vest- og Sydsjælland	15.9	Ulvedybet	Nordjylland	5.5
Tissø	Vest- og Sydsjælland	12.5	Tange sø	Østjylland	5.4
Furesø	Nordsjælland	9.4	Lund Fjord	Nordjylland	5.1
Skanderborg sø	Østjylland	8.5			

<sup>1</sup> Area of brackish water.

Source: Danish Geodata Agency  
www.gst.dk

**Table 409 Meteorological conditions**

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
°C													
<b>Mean temperature</b>													
Normal (1961-1990)	0.0	0.0	2.1	5.7	10.8	14.3	15.6	15.7	12.7	9.1	4.7	1.6	7.7
2014	1.8	4.2	5.8	8.7	11.7	14.9	19.5	16.0	14.6	12.1	7.5	3.3	10.0
<b>Average daily temperature</b>													
Normal (1961-1990)	2.0	2.2	4.9	9.6	15.0	18.7	19.8	20.0	16.4	12.1	7.0	3.7	10.9
2014	3.1	6.4	9.5	12.8	15.8	19.6	24.3	20.1	18.4	14.5	9.1	5.3	13.3
<b>Average nightly temperature</b>													
Normal (1961-1990)	-2.9	-2.8	-0.8	2.1	6.5	9.9	11.5	11.3	9.1	6.1	2.3	-0.7	4.3
2014	0.3	2.1	2.6	4.8	7.6	10.0	14.4	12.2	11.0	9.3	5.8	0.9	6.8
<b>Maximum temperature</b>													
1874-2014 Temp.	12.4	15.8	22.2	28.6	32.8	35.5	35.3	36.4	32.3	26.9	18.5	14.5	36.4
Measured during the years	<b>2005</b>	<b>1990</b>	<b>1990</b>	<b>1993</b>	<b>1892</b>	<b>1947</b>	<b>1941</b>	<b>1975</b>	<b>1906</b>	<b>2011</b>	<b>1968</b>	<b>1953</b>	<b>1975</b>
2014	10.4	13.1	18.7	22.0	27.1	28.1	30.9	31.7	25.1	20.4	16.6	11.3	31.7
<b>Minimum temperature</b>													
1874-2014 Temp.	-31.2	-29.0	-27.0	-19.0	-8.0	-3.5	-0.9	-2.0	-5.6	-11.9	-21.3	-25.6	-31.2
Measured during the years	<b>1982</b>	<b>1942</b>	<b>1888</b>	<b>1922</b>	<b>1900</b>	<b>1936</b>	<b>1903</b>	<b>1885</b>	<b>1886</b>	<b>1880</b>	<b>1973</b>	<b>1981</b>	<b>1982</b>
2014	-10.5	-4.3	-4.7	-3.7	-2.7	2.3	5.2	3.7	-0.2	-1.2	-4.1	-15.3	-15.3
degree-days													
<b>Degree-days</b>													
Normal (1961-1990)	522	491	461	337	198	84	43	47	128	243	361	469	3 382
2014	472	360	347	248	167	68	10	56	73	152	286	426	2 664
mm.													
<b>Precipitation</b>													
Normal (1961-1990)	57	38	46	41	48	55	66	67	73	76	79	66	712
2014	77	55	27	37	65	40	54	125	54	114	52	118	818
hours													
<b>Bright sunshine, all DK</b>													
Normal (1961-1990)	43	69	110	162	209	209	196	186	128	87	54	43	1 495
2014	17	70	151	198	216	270	277	188	171	81	41	46	1 727
days													
<b>Summer days (max. &gt;25°)</b>													
Normal (1961-1990)	0.0	0.0	0.0	0.0	0.2	1.9	2.6	2.3	0.1	0.0	0.0	0.0	7.2
2014	0.0	0.0	0.0	0.0	0.3	0.6	15.5	2.3	0.0	0.0	0.0	0.0	18.8
<b>Frost days (min. &lt;0°)</b>													
Normal (1961-1990)	19.0	19.0	15.0	6.6	0.7	<	0.0	0.0	0.2	1.8	7.3	15.0	84.0
2014	13.0	2.6	4.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	1.3	8.4	30.9
<b>Ice days (max. &lt;0°)</b>													
Normal (1961-1990)	8.6	7.5	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.0	23.0
2014	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.5
<b>Precipitation days (R ≥ 0.1 mm.)</b>													
Normal (1961-1990)	17.0	13.0	14	12.0	12.0	12.0	13.0	13.0	15.0	16.0	18.0	17.0	171.0
2014	23.4	19.3	15.2	14.3	13.8	13.3	13.3	25.5	17.1	24.4	18.9	25.0	224.0
<b>Days with snow cover</b>													
Normal (1961-1990)	12.0	9.3	4.6	0.7	0.0	0.0	0.0	0.0	0.0	<	1.3	5.1	33.0
2014	8.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	13.1

Note 1: Degree days are used as a measurement for heating needs in the heating season (1 September - 31 May). Degree days are shade-temperature days.

Note 2: < means less than 0.1, but greater than 0.0.

Source: Danmarks Meteorologiske Institut  
www.dmi.dk

**Table 410 Infrastructure for transport**

1 January	2013	2014
	----- km -----	
<b>Road network, total</b>	<b>74 109</b>	<b>74 407</b>
Of which motorways	1 195	1 216
State roads	3 791	3 796
Municipality roads	70 276	70 568
<b>Railway network, total</b>	<b>2 636</b>	<b>2 636</b>
Of which Copenhagen Metro	21	21
Of which private railways	520	520
	----- number -----	
Stations and halts	528	528
Sea ports	112	111
Airports	23	23

www.statbank.dk/vej11, bane41 and skib101

**Table 411 Infrastructure for transport, expenditure**

	2012	2013
	----- DKK mio. -----	
<b>Road network</b>	<b>16 884</b>	<b>14 670</b>
Construction expenditure	9 853	7 808
Operation and maintenance	7 031	6 862
<b>State railway network</b>	<b>4 380</b>	<b>4 211</b>
New investments	2 513	2 845
Reinvestments	1 839	1 334
Other investments	28	32
<b>Private railways</b>	<b>0</b>	<b>0</b>
<b>Sea ports</b>	<b>483</b>	<b>...</b>
Constructions	367	...
Buildings	116	...
<b>Airports</b>	<b>234</b>	<b>...</b>
<b>Great Belt Link</b>	<b>64</b>	<b>44</b>
<b>Øresund Link</b>	<b>41</b>	<b>4</b>
<b>Copenhagen Metro</b>	<b>2 332</b>	<b>3 170</b>

www.statbank.dk/vej2, bane42, flyv2 and skib2

**Table 412 Greenhouse gas emissions from the Danish economy**

	1990	2000	2010	2011	2012	Share 2012
1 000 tonnes CO <sub>2</sub> equivalents	1 000 tonnes CO <sub>2</sub> equivalents					Per cent
<b>Industries, total</b>	<b>70 236</b>	<b>79 487</b>	<b>89 814</b>	<b>88 606</b>	<b>82 176</b>	<b>91,0</b>
Agriculture, forestry, fishing	15 267	13 075	11 939	12 050	11 913	13,2
Mining and quarrying	1 156	2 536	2 069	1 874	1 844	2,0
Manufacturing	8 416	9 055	5 770	6 059	5 887	6,5
Utility services	26 593	26 011	23 371	19 320	15 901	17,6
Construction	911	1 150	1 613	1 737	1 461	1,6
Trade and transport etc.	16 312	26 277	43 410	45 947	43 604	48,3
Information and communication	152	129	111	104	97	0,1
Financial and insurance	88	55	65	71	63	0,1
Real estate;rent.of non-res.b.	44	71	99	83	92	0,1
Dwellings	50	21	31	27	37	0,0
Other business services	255	294	429	417	386	0,4
Public adm., education, health	833	645	737	773	747	0,8
Arts, entertainm. oth.service	162	169	168	144	144	0,2
<b>Households</b>	<b>10 574</b>	<b>10 415</b>	<b>9 385</b>	<b>8 622</b>	<b>8 137</b>	<b>9,0</b>
<b>Greenhouse gas emissions from the Danish economy</b>	<b>80 810</b>	<b>89 902</b>	<b>99 198</b>	<b>97 228</b>	<b>90 313</b>	<b>100,0</b>
Of which						
Danish operated ships' bunkering abroad	9 358	19 448	34 821	37 832	35 784	
Danish operated planes' bunkering abroad	275	520	1 220	1 101	1 119	
Danish operated vehicles' bunkering abroad	•	•	1 823	1 967	1 931	
Total industries, excl. bunkering abroad	71 177	69 934	61 334	56 328	51 479	
Emissions from biomass	4 662	6 899	14 951	14 579	15 156	

**Table 413 Extraction of raw materials**

	1990	1995	2000	2013
	m <sup>3</sup> in thousands			
<b>Extraction of raw materials, total</b>	<b>33 976</b>	<b>34 210</b>	<b>40 945</b>	<b>32 137</b>
<b>Extraction from land area:</b>	<b>28 106</b>	<b>28 558</b>	<b>33 809</b>	<b>25 683</b>
Sand, gravel and stone	22 534	21 721	27 587	20 395
Quartz sand	186	191	479	244
Granite	811	662	199	146
Clay	462	739	788	337
Expanded clay	303	311	313	225
Moler	195	186	227	205
Chalk, limestone	2 924	4 049	3 405	2 571
Peat	399	259	247	154
Other raw materials	292	440	563	1 406
<b>Extraction from sea area</b>				
Sand, gravel, sand for land filling etc.	5 870	5 652	7 136	6 454

Source: National Forest and Nature Agency

[www.statbank.dk/rst01](http://www.statbank.dk/rst01) and [rst3](http://www.statbank.dk/rst3)



**Table 414 Link between total Danish CO<sub>2</sub>-emissions and the Kyoto-protocol**

	1990	2012
	mio. tonnes	
<b>Total CO<sub>2</sub> emissions from the Danish economy (Environmental Accounts)</b>	<b>69.5</b>	<b>93.3</b>
- Biomasse as fuel	4.7	15.2
- Danish CO <sub>2</sub> emissions abroad	9.4	38.1
Ships	9.2	35.1
Planes	0.3	1.1
Vehicles	•	1.9
- Other differences related to transports and cross border trade	2.5	0.6
<b>= Total emissions accounted for in the Kyoto Protocol</b>	<b>52.9</b>	<b>39.4</b>

**Table 415 Sales of pesticides**

	2012	2013*
	tonnes	
<b>Sales of pesticide products<sup>1</sup></b>		
<b>Total sale</b>	<b>16 478</b>	<b>13 626</b>
Herbicides	9 588	7 329
Fungicides	2 338	2 633
Algicides	68	19
Insecticides	1 473	1 393
Slimicides for use in paper pulp	-	0
Products against pests on farm animals	46	94
Plant growth regulators	623	468
Combined fungicides and insecticides	12	14
Soil disinfectants	7	5
Rodenticides	717	410
Repellents	9	15
Products for the protection of woodwork	1 597	1 246
<b>Of which active ingredients<sup>2</sup></b>		
<b>Active ingredients, total</b>	<b>5 900</b>	<b>4 323</b>
Herbicides	4 462	2 937
Fungicides	823	881
Algicides	13	4
Insecticides	78	80
Slimicides for use in paper pulp	-	0
Products against pests on farm animals	2	2
Plant growth regulators	399	289
Combined fungicides and insecticides	2	5
Soil disinfectants	7	5
Rodenticides	5	7
Repellents	3	3
Products for the protection of woodwork	108	110

<sup>1</sup> A pesticide product comprises one or more effective substances, emulators, adhesives and inactive fillers.

<sup>2</sup> That part of the product which has a toxic effect.

Source: Danish Environmental Protection Agency

[www.statbank.dk/pest2](http://www.statbank.dk/pest2)

Table 416 Energy account for Denmark, 2013

	Crude oil and semi- manufactured oil	Coal, coke, etc.	Oil products	Natural gas	Other gas	Renewable energy resources <sup>2</sup>	Electricity	District heating
	thousand tonnes			mio. Nm <sup>3</sup>	thousand tonnes	TJ	GWh	TJ
Production	9 995	-	8 488	4 695	5 323	161 888	37 002	133 886
Imports	4 360	4 804	16 860	1 292	963	47 859	11 459	-
<b>Total supply</b>	<b>14 354</b>	<b>4 804</b>	<b>25 348</b>	<b>5 988</b>	<b>6 286</b>	<b>209 747</b>	<b>48 461</b>	<b>133 886</b>
Exports	6 016	85	6 510	-	2 120	4 350	14 237	-
Changes in inventories	- 51	- 813	1 923	-	229	189	-	-
Distribution losses etc.	-	-	-	97	4	12	1 919	26 658
<b>Total industries and households</b>	<b>8 389</b>	<b>5 532</b>	<b>16 915</b>	<b>5 891</b>	<b>3 933</b>	<b>205 195</b>	<b>32 305</b>	<b>107 228</b>
Households	-	1	2 116	-	718	42 985	9 942	68 691
<b>Total industries</b>	<b>8 389</b>	<b>5 531</b>	<b>14 799</b>	<b>5 891</b>	<b>3 216</b>	<b>162 210</b>	<b>22 363</b>	<b>38 538</b>
<b>Agriculture, forestry and fishing</b>	-	<b>61</b>	<b>492</b>	-	<b>38</b>	<b>2 560</b>	<b>1 893</b>	<b>1 585</b>
<b>Mining and quarrying</b>	-	<b>4</b>	<b>22</b>	<b>601</b>	<b>17</b>	<b>1 433</b>	<b>103</b>	<b>22</b>
<b>Manufacturing</b>	<b>8 389</b>	<b>151</b>	<b>998</b>	-	<b>696</b>	<b>9 651</b>	<b>7 934</b>	<b>5 182</b>
<b>Utility services</b>	-	<b>5 315</b>	<b>167</b>	<b>5 290</b>	<b>2 223</b>	<b>143 245</b>	<b>1 525</b>	<b>1 061</b>
Electricity, gas, steam and air conditioning supply	-	5 315	125	5 290	2 215	116 188	649	-
Water supply, sewerage and waste management	-	-	42	-	8	27 057	876	1 061
<b>Construction</b>	-	-	<b>340</b>	-	<b>14</b>	<b>733</b>	<b>361</b>	-
<b>Trade and transport etc.</b>	-	-	<b>12 435</b>	-	<b>87</b>	<b>2 822</b>	<b>5 514</b>	<b>11 586</b>
Wholesale and retail trade	-	-	246	-	59	667	3 406	7 826
Transportation	-	-	12 178	-	5	2 124	1 253	740
Accommodation and food service activities	-	-	11	-	23	32	855	3 020
<b>Information and communication</b>	-	-	<b>17</b>	-	<b>11</b>	<b>43</b>	<b>1 120</b>	<b>1 540</b>
<b>Financial and insurance</b>	-	-	<b>14</b>	-	<b>6</b>	<b>33</b>	<b>203</b>	<b>856</b>
<b>Real estate activities and renting of non-residential buildings</b>	-	-	<b>20</b>	-	<b>3</b>	<b>64</b>	<b>166</b>	<b>354</b>
<b>Dwellings</b>	-	-	<b>8</b>	-	<b>3</b>	<b>25</b>	<b>8</b>	<b>430</b>
<b>Other business services</b>	-	-	<b>87</b>	-	<b>24</b>	<b>262</b>	<b>503</b>	<b>3 318</b>
Knowledge-based services	-	-	35	-	13	100	372	1 756
Travel agent, cleaning, ao. operational services	-	-	53	-	11	162	132	1 562
<b>Public administration, education and health</b>	-	-	<b>167</b>	-	<b>75</b>	<b>1 248</b>	<b>2 341</b>	<b>10 013</b>
Public adm., defense and compulsory social security	-	-	112	-	11	337	315	1 365
Education	-	-	26	-	27	362	869	3 716
Human health and social work	-	-	29	-	36	549	1 156	4 933
<b>Arts, entertainment and other services</b>	-	-	<b>33</b>	-	<b>19</b>	<b>92</b>	<b>691</b>	<b>2 592</b>
Arts, entertainment and recreation activities	-	-	16	-	15	46	521	2 096
Other service activities	-	-	16	-	4	46	170	495
Act. of households as empl. of domestic personnel	-	-	-	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated ships <sup>1</sup>	-	-	9 897	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated planes <sup>1</sup>	-	-	363	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated vehicles <sup>1</sup>	-	-	641	-	-	-	-	-

<sup>1</sup> The Danish operated ships, planes and vehicles' bunkering abroad is part of the industry Transport.

<sup>2</sup> Including waste

Table 417 Gross energy consumption

	1970	1980	1990	2000	2012
	TJ				
<b>Total industries and households</b>	<b>899 286</b>	<b>919 305</b>	<b>910 319</b>	<b>1 065 177</b>	<b>1 198 562</b>
Households	374 525	359 928	320 491	329 248	327 728
<b>Total industries</b>	<b>524 762</b>	<b>559 378</b>	<b>589 828</b>	<b>735 929</b>	<b>870 834</b>
<b>Agriculture, forestry and fishing</b>	<b>40 297</b>	<b>48 866</b>	<b>54 010</b>	<b>50 683</b>	<b>39 218</b>
<b>Mining and quarrying</b>	<b>6 165</b>	<b>6 935</b>	<b>17 791</b>	<b>39 759</b>	<b>30 897</b>
<b>Manufacturing</b>	<b>195 664</b>	<b>174 351</b>	<b>160 611</b>	<b>160 954</b>	<b>124 065</b>
<b>Utility services</b>	<b>4 727</b>	<b>5 748</b>	<b>8 628</b>	<b>10 232</b>	<b>12 946</b>
Electricity, gas, steam and air conditioning supply	939	1 576	2 118	2 417	3 824
Water supply, sewerage and waste management	3 788	4 172	6 510	7 815	9 121
<b>Construction</b>	<b>11 802</b>	<b>12 849</b>	<b>15 186</b>	<b>17 990</b>	<b>17 741</b>
<b>Trade and transport etc.</b>	<b>215 867</b>	<b>229 700</b>	<b>258 125</b>	<b>383 037</b>	<b>565 716</b>
Wholesale and retail trade	54 730	59 172	50 898	48 049	44 485
Transportation	152 863	163 162	199 372	327 356	510 351
Accommodation and food service activities	8 273	7 366	7 854	7 632	10 880
<b>Information and communication</b>	<b>4 957</b>	<b>5 842</b>	<b>6 246</b>	<b>7 212</b>	<b>9 693</b>
<b>Financial and insurance</b>	<b>2 996</b>	<b>3 850</b>	<b>4 272</b>	<b>3 383</b>	<b>3 372</b>
<b>Real estate activities and renting of non-residential buildings</b>	<b>1 135</b>	<b>1 454</b>	<b>1 922</b>	<b>2 087</b>	<b>2 499</b>
<b>Dwellings</b>	<b>1 125</b>	<b>1 629</b>	<b>1 988</b>	<b>1 578</b>	<b>1 233</b>
<b>Other business services</b>	<b>6 985</b>	<b>8 813</b>	<b>10 448</b>	<b>11 050</b>	<b>13 067</b>
Knowledge-based services	4 258	5 503	6 816	6 731	6 943
Travel agent, cleaning, and other operational services	2 727	3 309	3 632	4 319	6 124
<b>Public administration, education and health</b>	<b>26 281</b>	<b>51 041</b>	<b>42 800</b>	<b>39 782</b>	<b>40 229</b>
Public administration, defence and compulsory social security	7 332	15 834	9 093	8 223	9 477
Education	8 916	13 778	11 377	11 263	13 281
Human health and social work	10 032	21 428	22 330	20 295	17 471
<b>Arts, entertainment and other services</b>	<b>6 762</b>	<b>8 298</b>	<b>7 802</b>	<b>8 181</b>	<b>10 159</b>
Arts, entertainment and recreation activities	3 259	4 891	5 116	5 275	7 566
Other service activities	3 504	3 407	2 685	2 906	2 594
Activities of households as employers of domestic personnel	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated ships <sup>1</sup>	91 959	96 821	117 645	244 464	402 313
Of which: Bunkering abroad by Danish-operated planes <sup>1</sup>	1 448	2 360	3 777	7 144	15 806
Of which: Bunkering abroad by Danish-operated vehicles <sup>1</sup>	-	-	-	-	27 374

<sup>1</sup> The Danish operated ships, planes and vehicles' bunkering abroad is part of the industry Transport.

Table 418 Manufacturers' energy consumption. 2012

	Solid fuel	Liquid fuel	Gas	Electricity	District heating
	thousand GJ				
<b>Total<sup>1</sup></b>	<b>10 023</b>	<b>15 038</b>	<b>41 624</b>	<b>23 417</b>	<b>5 158</b>
Extraction of gravel and stone	968	516	655	254	4
Mining support service activities	0	53	7	16	17
Production of meat and meat products	8	111	1 809	1 421	72
Processing and preserving of fish	308	169	733	402	55
Dairy products		59	3 371	1 495	48
Grain mill and bakery products	2	50	1 279	703	212
Other food products	1 281	3 447	2 010	1 867	964
Beverages	0	25	1 149	443	40
Tobacco products	0	3	33	25	11
Textiles	7	8	256	306	46
Wearing apparel	1	3	7	10	8
Leather and footwear	0	0	11	10	0
Wood and wood products	1 686	146	119	638	185
Paper and paper products	4	53	1 486	502	63
Printing etc.	1	9	108	392	81
Oil refinery etc.	0	841	14 313	1 065	586
Basic chemicals	0	379	1 038	1 738	577
Paints and soap etc.	483	34	2 625	935	78
Pharmaceuticals	440	14	898	1 182	355
Rubber and plastic products	24	49	486	1 518	127
Glass and ceramic products	0	2	1 265	436	11
Concrete and bricks	3 618	8 362	3 323	1 615	77
Basic metals		45	1 447	1 087	60
Fabricated metal products	71	184	1 025	1 430	305
Computers and communication equipment etc.	1	1	162	147	40
Other electronic products	0	4	32	177	107
Electric motors, etc.	0	6	81	95	30
Wires and cables	1	5	76	163	20
Household appliances, lamps, etc.	1	2	71	65	19
Engines, windmills and pumps	16	114	686	1 301	315
Other machinery	105	227	518	670	224
Motor vehicles and related parts	8	18	211	185	30
Ships and other transport equipment	3	6	15	77	91
Furniture	984	16	162	381	52
Toys and other manufacturing	5	7	54	321	45
Medical instruments, etc.	0	6	49	86	47
Repair and installation of machinery and equipment	0	63	54	258	155

Note: The table includes workplaces in firms with 20 or more employed in the industry.

<sup>1</sup> Incl. extraction of gravel, clay, stone and salt, etc.

Table 419 Production of renewable energy

	1990	2000	2005	2010	2013
	GJ				
<b>Renewable energy, total</b>	<b>45 704 511</b>	<b>80 147 160</b>	<b>112 711 642</b>	<b>138 736 213</b>	<b>144 965 102</b>
Wind power	2 197 080	15 268 317	23 810 400	28 113 919	40 043 785
Hydro power	100 800	108 720	81 000	74 311	48 310
Solar power	0	4 320	7 776	21 698	1 863 148
Solar heat	99 800	330 700	411 465	635 641	2 889 199
Geothermal energy	96 000	116 078	343 983	424 656	228 970
Straw	12 481 150	15 893 450	21 023 550	23 269 600	20 637 850
Firewood	8 757 120	12 431 616	17 666 749	23 778 598	18 850 932
Wood chips	1 723 680	2 744 455	6 082 192	11 318 853	11 745 970
Wood pellets	1 575 000	3 092 916	4 718 600	4 364 425	5 201 755
Wood waste	6 191 013	6 895 078	6 499 627	8 500 208	9 111 065
Biogas	752 000	2 911 659	3 829 964	4 278 002	4 641 914
Bio oil	744 000	48 900	3 392 552	4 824 033	4 297 200
Heat pumps	2 462 400	3 585 484	4 058 263	8 159 122	4 917 024
Waste renewable	8 524 468	16 715 466	20 785 521	20 973 145	20 487 980

www.statbank.dk/ene2ht