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 km². 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

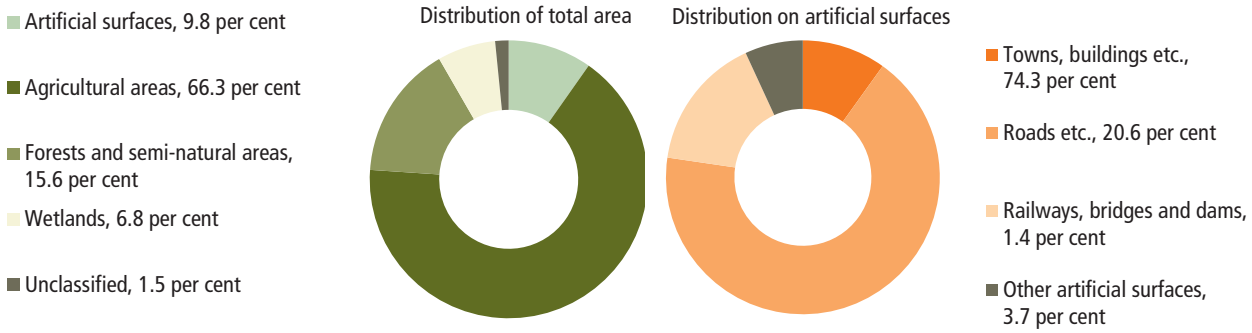


Table 408

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.

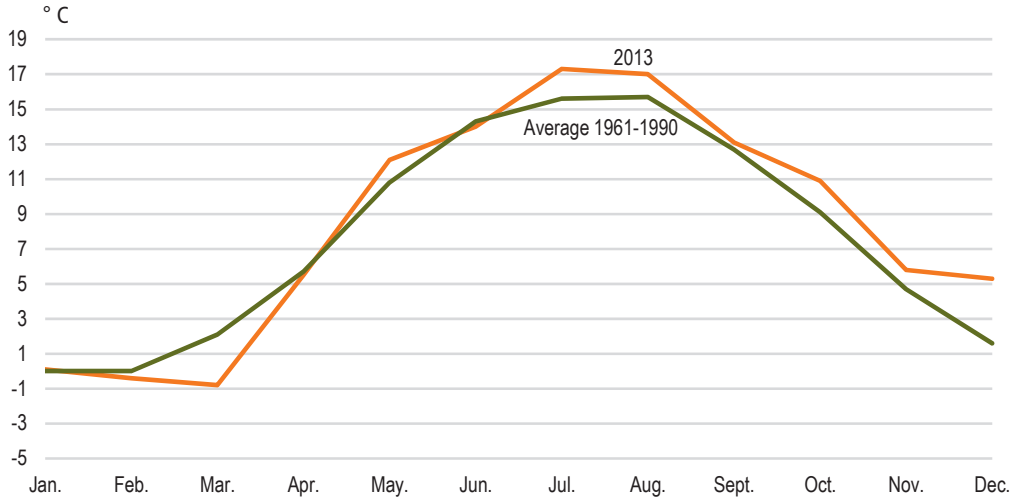
It rains or snows every other day

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 0 °C in January to 16 °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

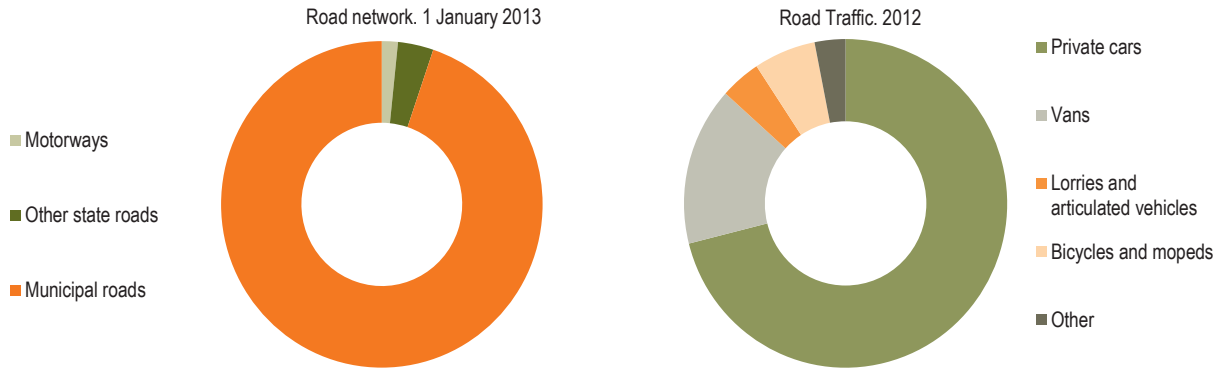
There were 74,109 km of public roads in Denmark on 1 January 2013. After the restructuring of the administrative regions in 2007 the new municipalities took over the administration of the earlier locally oriented county roads, while the state took over the administration of the other primary roads of the former counties. The state road network now comprises 5 per cent of the public road network. The other 95 per cent are administered by the new 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 2,200 km over the past ten years, mainly because of more municipal roads. Simultaneously the principal road network has been enlarged.

Since 2003, the motorway network has been extended by 18 per cent to 1,195 km in 2013, and the length of the dual-carriageways has increased by 11 per cent to 377 km in 2013.

Figure 3 Distribution of road network and of road traffic



www.statbank.dk/vej11 and vej20

Almost a quarter of the rail network is electrified

The length of the total rail network was 2,649 km on 1 January 2013, the same as the previous year. Viewed in relation to the total area of Denmark, there is 62 km of railway per 1,000 km². 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 2013, almost a quarter of the rail network was electrified. This is three times more than in 1990, but unchanged compared to 2012.

Goods transport by ship is concentrated at 23 sea ports

In 2012, there were 109 Danish ports handling freight. The 23 largest ports each handled more than 1 million tonnes of goods annually, and accounted for 86 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 36 ports

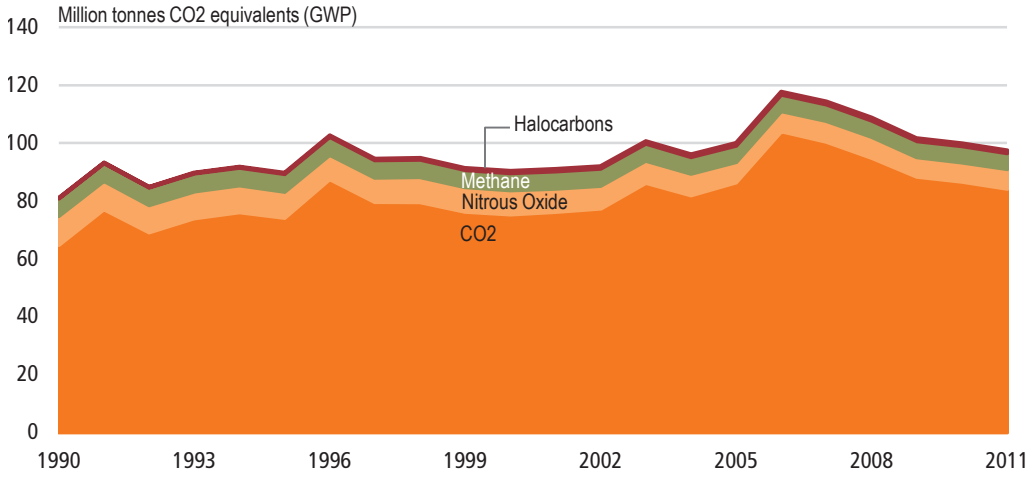
73 ports are engaged in transport of passengers, of which 36 of them have more than 200,000 arriving and departing passengers every year and account for 92 per cent of passengers in Danish ports. The greatest Danish ferry port is Helsingør accounting for 19 per cent of all sea passengers, followed by Rødby Færgehavn with 15 per cent of all passengers in 2012.

Environment

Greenhouse gases

86 per cent of the global warming potential from Danish greenhouse gases came from CO_2 in 2011. Methane accounted for 6 per cent, while nitrous oxide contributed 7 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_2-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

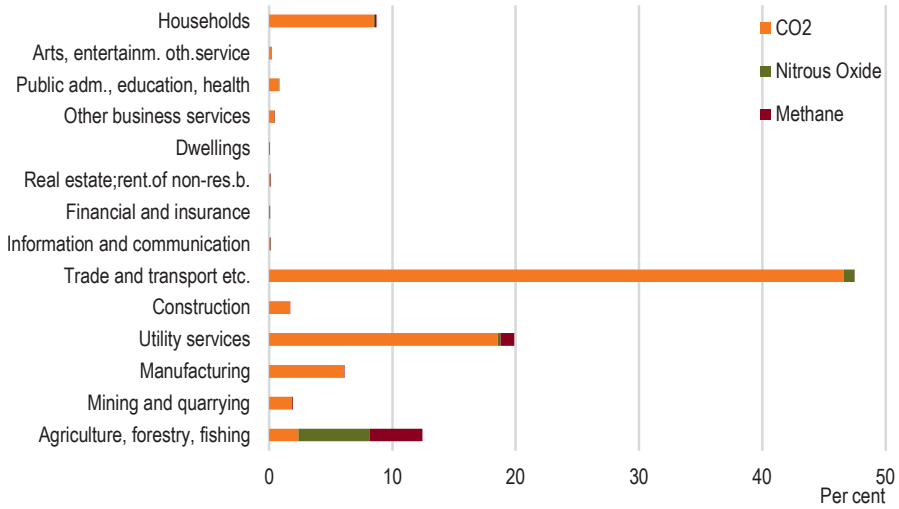


Note: The halocarbons (at the top of the figure) constitute less than 1 million tonnes CO_2-equivalents and are hardly visible.

Greenhouse gas emissions from industries and households

When CO_2, 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 2011 their share had increased to 91 per cent, with households making up the remaining emissions. *Agriculture, fishing and* quarrying contributed 12 per cent of the global warming potential. It is largely due to emissions of methane and nitrous oxide from agriculture, while emissions of CO_2 played a minor role.

Figure 5 Greenhouse gas emissions from industries and households. 2011



Note: Emissions are calculated as CO2-equivalents (GWP).

In 2011, *electricity, gas and water* supply contributed 20 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 47 per cent of the global warming potential from CO_2, 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 taxes

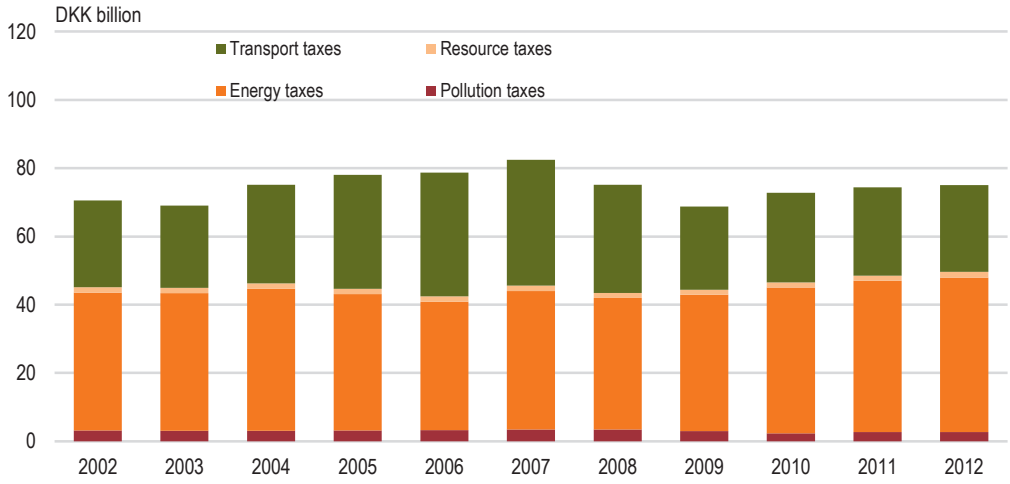
Denmark's environmental policy involves an increasing use of environmental taxes or more precise environmentally related taxes. Environmental taxes comprise of pollution, energy, resource and transport related taxes.

In 2012, the total revenue generated from these taxes was DKK 75.1 billion, corresponding to around 8.5 per cent of total revenues for taxes and duties.

Total revenue generated from energy related taxes amounted to DKK 45.2 billion DKK in 2012, corresponding to 60 per cent of total revenue from environmental related taxes.

In 2012, transport related taxes accounted for 34 per cent of environmental related taxes while resource related taxes accounted for 2.2 per cent and pollution taxes accounted for 3.7 per cent.

Figure 6 Environmental taxes



www.statbank.dk/mreg21

Energy

Denmark self-sufficient in energy

Since 1997, 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.

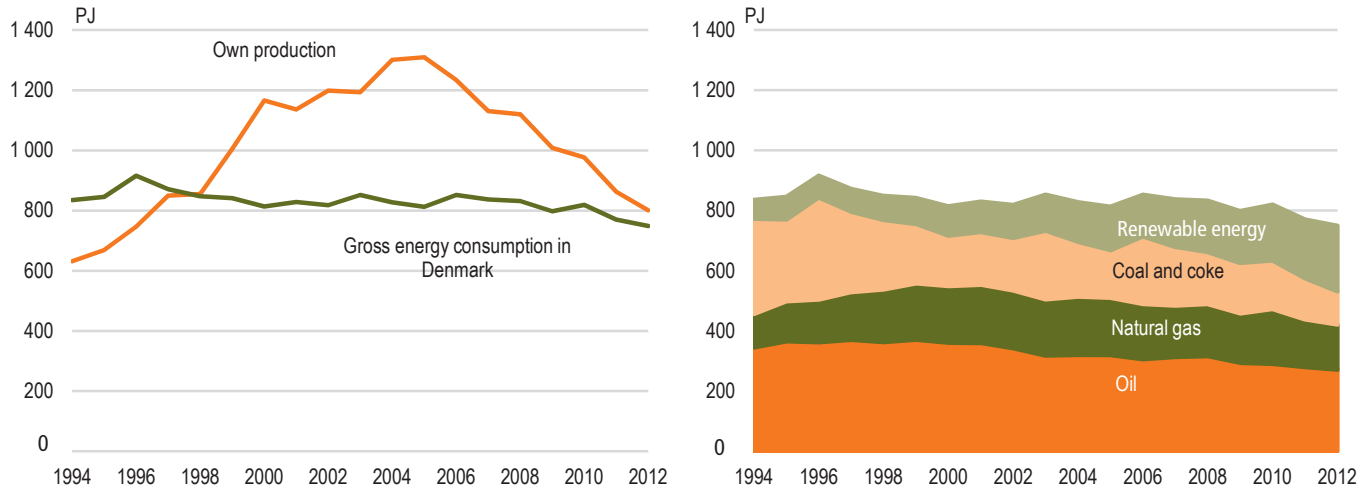
In 2006 there was a significant decrease in the production of energy, primarily due to a decrease in the production of oil and natural gas. The decrease has continued in the years after, but still, in 2012, the production of energy remains higher than the total consumption of energy in Denmark.

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 decreased by 3 per cent from 2011 to 2012.

Since the 1990's, the composition of fuel use has changed significantly as there has been an increase in the consumption of natural gas and renewable energy and a decrease particularly in the coal consumption.

Figure 7 Gross energy consumption



More renewable energy sources

The consumption of renewable energy has increased over a number of years and now accounts for 29 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 399 Area, population and coastline

	Land and inland water area km²	Population 1 January 2014	Density of population per km²	Number of islands	Inland water area 1959 km²	Coastline 1959 km
All Denmark	**42 921,6**	**5 627 235**	**131.1**	**391**	**700**	**7 314**
Provinces						
Byen København	179,3	728 243	4 061.6	16	18	213
Københavns omegn	342,3	530 612	1 550.1	1	. . .	. . .
Nordsjælland	1449	450 245	310.7	21	80	248
Bornholm[1]	588,3	40 305	68.5	6	3	141
Østsjælland	807,7	239 016	295.9	15	7	154
Vest- og Sydsjælland	6415	577 710	90.1	101	102	1 707
Fyn	3 478,7	486 709	139.9	96	26	1 130
Sydjylland	8 777,1	715 800	81.6	23	. . .	. . .[2]
Østjylland	5 841,3	851 769	145.8	49	. . .	. . .
Vestjylland	7 164,3	425 769	59.4	25	. . .	. . .
Nordjylland	7 878,7	581 057	73.8	38	. . .	. . .
Regions						
Hovedstaden	2 558,9	1 749 405	683.7	44	101	602
Sjælland	7 222,8	816 726	113.1	116	109	1 861
Syddanmark	12 255,6	1 202 509	98.1	119	. . .	. . .
Midtjylland	13 005,8	1 277 538	98.2	74	. . .	. . .
Nordjylland	7 878,6	581 057	73.8	38	. . .	. . .
Faroe Islands	**1 396,0**	**48 197**[3]	**34.5**	**17**	**. . .**	**1 117**[4]
Greenland	**410 449,0**[5]	**56 282**	**0.1**	**. . .**	**. . .**	**44 087**

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

[1] Incl. Christiansø. [2] The border with Germany was measured as 67.7 km. In length. [3] 1 December 2012
[4] Measured in 1955. [5] Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km², of which 81 per cent is covered by inland ice.

Table 400 Administrative division of Denmark. 2014

	Municipalities	Parishes	Customs and tax regions	Constituencies[1]	
				Counties and large constituencies	Constituencies
Total	**98**	**2 180**	**35**	**10**	**92**
The Islands	**56**	**893**	**17**	**6**	**48**
Jutland	**42**	**1 287**	**18**	**4**	**44**
Region Hovedstaden	**29**	**241**	**7**	**4**	**28**
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
Region Sjælland	**17**	**420**	**6**	**1**	**12**
Østsjælland	5	60	2	}	3
Vest- og Sydsjælland	12	360	4	1	9
Region Syddanmark	**22**	**522**	**9**	**2**	**21**
Fyn	10	232	4	1	8
Sydjylland	12	290	5	1	13
Region Midtjylland	**19**	**640**	**9**	**2**	**22**
Østjylland	11	357	5	1	11
Vestjylland	8	283	4	1	11
Region Nordjylland	**11**	**357**	**4**	**1**	**9**

[1] In accordance with Act no. 1292 of 8 December 2006 on elections to the Danish Parliament.

www.statbank.dk/02

Table 401 Area and population on islands

Municipality code		Population 1 January 2014	Area in km²
	All Denmark	5 627 235	43 059.62
	Zealand and its islands	2 421 291	7 473.16
330	Agersø	169	8.08
Flere	Amager	183 750	96.28
390	Bogø	1 109	14.40
370	Dybsø	1	1.38
370	Enø	349	3.53
250	Eskilsø	6	1.40
390	Farø	5	. . .
370	Gavnø	37	5.65
330	Glænø	50	. . .
190	Klaus Nars holm	3	0.00
390	Langø	2	1.32
390	Masnedø	136	1.71
390	Møn	9 466	218.31
326	Nekselø	19	2.23
390	Nyord	39	5.57
330	Omø	157	4.45
316	Orø	843	15.03
185	Saltholm	2	16.72
326	Sejerø	359	12.50
Flere	Sjælland	2 224 773	7 049.27
101	Slotsholmen	15	0.21
101	Trekroner	1	0.02
	83 named and uninhabitated islands	●	15.09
	Lolland-Falster and their islands	104 535	1 796.95
360	Askø	37	2.80
376	Falster	42 352	513.99
360	Fejø[2]	455	17.04
360	Femø	121	11.40
360	Lilleø	7	0.84
Flere	Lolland	61 563	1 244.97
	44 named and uninhabitated islands	●	5.92
	Bornholm and its islands	40 305	589.68
400	Bornholm	40 215	589.32
411	Christiansø[3]	90	0.21
	4 named and uninhabitated islands	●	0.14
	Funen and its islands	486 709	3 489.80
430	Avernakø	108	5.74
492	Birkholm	10	0.91
430	Bjørnø	34	1.48
420	Bågø	25	6.19
479	Drejø	63	4.28
479	Frederiksø	2	0.06
Flere	Fyn	457 569	2 988.62
410	Fænø	2	3.90
479	Hjortø	8	0.91
482	Langeland[1]	12 483	283.54
430	Lyø	98	6.21
482	Siø	16	1.43
479	Skarø	29	1.96
482	Strynø	196	4.92
479	Thurø	3 555	7.58
440	Tornø	4	0.24
479	Tåsinge	6 124	69.99
492	Ærø	6 383	87.51
	78 navngivne ubeboede øer	●	14.30
	Jutland and its islands	2 574 395	29 710.03
773	Agerø	28	3.49
727	Alrø	156	7.70
540	Als	50 352	311.39
707	Anholt	154	21.75
580	Barsø	22	2.66
851	Egholm	46	6.06
615	Endelave	166	13.23
563	Fanø	3 264	59.60
779	Fur	809	21.95
813	Hirsholm	3	0.17
766	Hjarnø	106	3.23
671	Jegindø	458	7.77
Flere	Jyske halvø	2 194 438	23 861.05
580	Kalvø	12	0.19
820	Livø	10	3.32
825	Læsø	1 808	112.86
561	Mandø	40	8.54
773	Mors	20 975	360.46
550	Rømø	618	86.56
741	Samsø	3 767	112.26
580	Store Okseø	4	0.08
727	Tunø	113	3.56
Flere	Vendsyssel-Thy	296 700	4 674.24
671	Venø	185	6.35
615	Vorsø	1	0.59
510	Årø	160	5.88
	111 named and uninhabitated 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

[1] Incl. Lindø. [2] Incl. Skalø. [3] Not included in the division of municipalities, administered by the Ministry of Defence.

Table 402 Land cover

	Km^2	Per cent
Total area	**43 560.76**	**100.00**
Artificial surfaces	**4 246.46**	**9.75**
Urban fabric, industrial and commercial units[1]	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
Agricultural areas	**28 897.85**	**66.34**
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
Forests and semi-natural areas	**6 788.32**	**15.58**
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
Wetlands	**2 274.89**	**5.22**
Meadows	808.89	1.86
Inland wetlands	205.66	0.47
Peat bogs	875.60	2.01
Salt marshes	384.74	0.88
Water bodies	**670.59**	**1.54**
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
Unclassified	**682.65**	**1.57**

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. 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.

[1] 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.

Source: National Environmental Research Institute
www.dmu.dk

Table 403 Denmark's 15 largest lakes

Lake's name	Province	2012	Lake's name	Province	2012
		km^2			km^2
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[1]	Vestjylland	16.2	Julsø	Østjylland	5.6
Saltbæk Vig[1]	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			

[1] Area of brackish water.

Source: Danish Geodata Agency
www.gst.dk

Table 404 Meteorological conditions

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	°C												
Mean temperature													
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
2013	0.1	-0.4	-0.8	5.5	12.1	14.0	17.3	17.0	13.1	10.9	5.8	5.3	8.4
Average daily temperature													
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
2013	2.0	1.4	2.3	9.8	16.6	17.9	22.3	21.6	16.8	13.5	8.1	7.1	11.7
Average nightly temperature													
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
2013	-2.3	-2.3	-3.8	1.5	7.5	10.1	12.2	12.5	9.5	8.3	3.0	3.0	5.0
Maximum temperature													
1874-2013 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	**2005**	**1990**	**1990**	**1993**	**1892**	**1947**	**1941**	**1975**	**1906**	**2011**	**1968**	**1953**	**1975**
2013	9.9	8.9	12.9	20.4	27.9	27.9	31.6	33.3	26.0	19.4	13.6	11.6	33.3
Minimum temperature													
1874-2013 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	**1982**	**1942**	**1888**	**1922**	**1900**	**1936**	**1903**	**1885**	**1886**	**1880**	**1973**	**1981**	**1982**
2013	-17.6	-11.5	-15.0	-8.4	-4.5	2.4	4.5	5.1	-0.2	-1.6	-7.8	-6.4	-17.6
	degree-days												
Degree-days													
Normal (1961-1990)	522	491	461	337	198	84	43	47	128	243	361	469	3 382
2013	524	487	551	345	155	91	22	23	120	189	337	363	3 207
	mm.												
Precipitation													
Normal (1961-1990)	57	38	46	41	48	55	66	67	73	76	79	66	712
2013	57	22	9	25	68	68	19	49	92	103	69	90	669
	hours												
Bright sunshine, all DK													
Normal (1961-1990)	43	69	110	162	209	209	196	186	128	87	54	43	1 495
2013	49	50	190	212	224	215	297	208	136	94	66	40	1 780
	days												
Summer days (max. >25°)													
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
2013	0.0	0.0	0.0	0.0	0.3	0.1	6.5	3.0	0.1	0.0	0.0	0.0	9.9
Frost days (min. <0°)													
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
2013	18.0	23.8	29.1	9.9	1.2	0.0	0.0	0.0	0.0	0.2	6.3	4.3	92.7
Ice days (max. <0°)													
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
2013	14.7	7.6	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.5
Precipitation days (R ³ 0.1 mm)													
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
2013	20.7	13.4	11.0	14.7	17.7	15.6	8.9	16.6	21.1	22.9	21.4	24.2	208.1
Days with snow													
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
2013	17.4	16.7	16.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	53.2

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 405 Infrastructure for transport

1 January	2012	2013
	km	
Road network, total	**73 929**	**74 109**
Of which motorways	1 143	1 195
State roads	3 790	3 791
Municipality roads	70 098	70 276
Railway network, total	**2 650**	**2 649**
Of which Copenhagen Metro	21	21
Of which private railways	514	520
	number	
Stations and halts	541	527
Sea ports	113	112
Airports	23	23

www.statbank.dk/vej11, bane41 and skib101

Table 406 Infrastructure for transport, expenditure

	2011	2012
	DKK mio.	
Road network	**14 401**	**16 884**
Construction expenditure	7 838	9 853
Operation and maintenance	6 563	7 031
State railway network	**2 607**	**4 380**
New investments	1 211	2 513
Reinvestments	1 322	1 839
Other investments	74	28
Private railways	**6**	**0**
Sea ports	**459**	**. . .**
Constructions	416	. . .
Buildings	43	. . .
Airports	**231**	**. . .**
Great Belt Link	**99**	**64**
Øresund Link	**67**	**41**
Copenhagen Metro	**3 651**	**2 332**

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

Table 407 Greenhouse gas emissions from the Danish economy

	1990	1995	2000	2005	2009	2010	2011
	1 000 tonnes CO2 equivalents						
Industries, total	**70 278**	**78 562**	**79 171**	**89 066**	**91 262**	**89 609**	**88 131**
Agriculture, forestry, fishing	15 261	14 220	12 935	12 334	11 821	11 984	12 029
Mining and quarrying	1 129	1 503	2 538	2 504	1 970	2 069	1 889
Manufacturing	8 135	9 414	8 991	7 410	5 584	5 617	5 913
Utility services	26 956	32 392	25 897	22 629	23 297	23 282	19 188
Construction	902	890	1 150	1 488	1 425	1 605	1 628
Trade and transport etc.	16 310	18 700	26 278	40 879	45 524	43 413	45 853
Information and communication	152	122	129	111	114	111	102
Financial and insurance	88	52	55	73	68	65	60
Real estate;rent.of non-res.b.	44	36	71	85	77	99	95
Dwellings	50	34	21	21	28	31	29
Other business services	255	226	294	464	427	428	413
Public adm., education, health	834	837	645	876	760	738	780
Arts, entertainm. oth.service	162	135	169	193	166	168	151
Households	10 590	10 737	10 415	10 043	9 432	9 330	8 403
Greenhouse gas emissions from the Danish economy	**80 869**	**89 299**	**89 588**	**99 109**	**100 694**	**98 939**	**96 534**
Of which							
Danish operated ships' bunkering abroad	9 358	11 165	19 448	32 988	37 239	34 821	37 838
Danish operated planes' bunkering abroad	275	431	520	1 640	1 448	1 219	1 103
Danish operated vehicles' bunkering abroad	•	•	•	491	1 520	1 823	1 342
Total industries, excl. bunkering abroad	71 235	77 703	69 620	63 990	60 486	61 075	56 251
Emissions from biomass	4 662	5 725	6 899	10 728	12 627	14 902	14 492

Table 408 Extraction of raw materials

	1990	1995	2000	2012
	m^3 in thousands			
Extraction of raw materials, total	**33 976**	**34 210**	**40 945**	**36 495**
Extraction from land area:	**28 106**	**28 558**	**33 809**	**25 969**
Sand, gravel and stone	22 534	21 721	27 587	20 677
Quartz sand	186	191	479	297
Granite	811	662	199	176
Clay	462	739	788	323
Expanded clay	303	311	313	196
Moler	195	186	227	177
Chalk, limestone	2 924	4 049	3 405	2 423
Peat	399	259	247	152
Other raw materials	292	440	563	1 546
Extraction from sea area				
Sand, gravel, sand for land filling etc.	5 870	5 652	7 136	10 526

Source: National Forest and Nature Agency

www.statbank.dk/rst01 and rst3

Table 409 Link between total Danish CO2-emissions and the Kyoto-protocol

	1990	2011
	mio. tonnes	
Total CO2 emissions from the Danish economy (Environmental Accounts)	**69.5**	**98.7**
- Biomasse as fuel	4.7	14.5
- Danish CO2 emissions abroad	9.4	39.5
Ships	9.2	37.1
Planes	0.3	1.1
Vehicles	.	1.3
- Other differences related to transports and cross border trade	2.5	0.8
= Total emissions accounted for in the Kyoto Protocol	**52.9**	**43.9**

Table 410 Sales of pesticides

	2010	2011	2012*
	tonnes		
Sales of pesticide products[1]			
Total sale	**12 919**	**13 868**	**16 826**
Herbicides	8 368	9 154	9 588
Fungicides	1 753	2 008	2 338
Algicides	17	16	68
Insecticides	804	1 181	1 822
Slimicides for use in paper pulp	-	-	-
Products against pests on farm animals	60	68	46
Plant growth regulators	321	271	623
Combined fungicides and insecticides	9	15	12
Soil disinfectants	17	-	7
Rodenticides	585	337	717
Repellents	15	16	9
Products for the protection of woodwork	969	803	1 597
Of which active ingredients[2]			
Active ingredients, total	**4 321**	**4 741**	**5 900**
Herbicides	3 362	3 742	4 462
Fungicides	562	626	823
Algicides	3	16	13
Insecticides	50	49	78
Slimicides for use in paper pulp	-	-	-
Products against pests on farm animals	1	1	2
Plant growth regulators	203	171	399
Combined fungicides and insecticides	3	5	2
Soil disinfectants	16	-	7
Rodenticides	3	1	5
Repellents	4	4	3
Products for the protection of woodwork	115	125	108

[1] A pesticide product comprises one or more effective substances, emulators, adhesives and inactive fillers.

[2] That part of the product which has a toxic effect.

Source: Danish Environmental Protection Agency

www.statbank.dk/pest2

Table 411 Energy account for Denmark. 2012

	Crude oil and semi-manufac-tured oil	Coal, coke, etc.	Oil products	Natural gas	Other gas	Renewable energy resources[2]	Electricity	District heating
	thousand tonnes			mio. Nm^3	thousand tonnes	TJ	GWh	TJ
Production	10 000	-	8 415	5 571	5 725	167 620	29 227	135 318
Imports	3 226	4 047	18 167	831	-	48 181	15 920	-
Total supply	**13 227**	**4 047**	**26 582**	**6 402**	**5 725**	**215 801**	**45 147**	**135 318**
Exports	5 920	12	6 725	-	2 830	4 367	10 706	-
Changes in inventories	-1 138	-368	1 749	-	-174	646	-	-
Distribution losses etc.	-	-	-	70	4	9 118	2 176	26 936
Total industries and households	**8 445**	**4 402**	**18 108**	**6 332**	**3 065**	**201 670**	**32 265**	**108 382**
Households	-	1	2 139	-	710	47 075	10 026	69 476
Total industries	**8 445**	**4 401**	**15 969**	**6 332**	**2 354**	**154 595**	**22 239**	**38 906**
Agriculture, forestry and fishing	**-**	**48**	**539**	**-**	**39**	**2 861**	**1 847**	**1 585**
Mining and quarrying	**-**	**4**	**23**	**633**	**17**	**1 410**	**100**	**22**
Manufacturing	**8 445**	**142**	**990**	**-**	**684**	**8 771**	**7 798**	**5 182**
Utility services	**-**	**4 207**	**171**	**5 699**	**1 421**	**136 420**	**1 570**	**1 634**
Electricity, gas, steam and air conditioning supply	-	4 207	132	5 699	1 412	109 281	596	-
Water supply, sewerage and waste management	-	-	38	-	9	27 139	974	1 634
Construction	**-**	**-**	**392**	**-**	**14**	**875**	**374**	**-**
Trade and transport etc.	**-**	**-**	**13 452**	**-**	**68**	**2 380**	**5 606**	**11 327**
Wholesale and retail trade	-	-	278	-	48	729	3 430	7 898
Transportation	-	-	13 159	-	4	1 608	1 294	734
Accommodation and food service activities	-	-	15	-	16	43	882	2 695
Information and communication	**-**	**-**	**24**	**-**	**9**	**64**	**1 102**	**1 528**
Financial and insurance	**-**	**-**	**16**	**-**	**5**	**34**	**192**	**928**
Real estate activities and renting of non-residential buildings	**-**	**-**	**27**	**-**	**2**	**82**	**165**	**344**
Dwellings	**-**	**-**	**10**	**-**	**2**	**31**	**9**	**373**
Other business services	**-**	**-**	**106**	**-**	**19**	**305**	**489**	**3 322**
Knowledge-based services	-	-	43	-	10	119	352	1 812
Travel agent, cleaning, ao. operational services	-	-	63	-	9	186	138	1 510
Public administration, education and health	**-**	**-**	**183**	**-**	**62**	**1 260**	**2 429**	**10 500**
Public adm., defense and compulsory social security	-	-	123	-	9	381	326	1 425
Education	-	-	30	-	24	355	952	4 077
Human health and social work	-	-	30	-	29	524	1 151	4 998
Arts, entertainment and other services	**-**	**-**	**36**	**-**	**12**	**104**	**556**	**2 162**
Arts, entertainment and recreation activities	-	-	16	-	10	50	384	1 678
Other service activities	-	-	20	-	3	54	172	483
Act. of households as empl. of domestic personnel	-	-	-	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated ships	-	-	11 065	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated planes			353					
Of which: Bunkering abroad by Danish-operated vehicles	-	-	603	-	-	-	-	-

[1] The Danish operated ships, planes and vehicles' bunkering abroad is part of the industry Transport.

www.statbank.dk/ene1ht+ene1ha

[2] Including waste

Table 412 Gross energy consumption

	1970	1980	1990	2000	2012
	TJ				
Total industries and households	**899 286**	**919 305**	**910 319**	**1 065 177**	**1 240 062**
Households	374 525	359 928	320 491	329 248	327 815
Total industries	**524 762**	**559 378**	**589 828**	**735 929**	**912 247**
Agriculture, forestry and fishing	**40 297**	**48 866**	**54 010**	**50 683**	**40 574**
Mining and quarrying	**6 165**	**6 935**	**17 791**	**39 759**	**31 479**
Manufacturing	**195 664**	**174 351**	**160 611**	**160 954**	**123 630**
Utility services	**4 727**	**5 748**	**8 628**	**10 232**	**13 685**
Electricity, gas, steam and air conditioning supply	939	1 576	2 118	2 417	3 643
Water supply, sewerage and waste management	3 788	4 172	6 510	7 815	10 042
Construction	**11 802**	**12 849**	**15 186**	**17 990**	**20 154**
Trade and transport etc.	**215 867**	**229 700**	**258 125**	**383 037**	**603 796**
Wholesale and retail trade	54 730	59 172	50 898	48 049	44 520
Transportation	152 863	163 162	199 372	327 356	549 210
Accommodation and food service activities	8 273	7 366	7 854	7 632	10 066
Information and communication	**4 957**	**5 842**	**6 246**	**7 212**	**9 501**
Financial and insurance	**2 996**	**3 850**	**4 272**	**3 383**	**3 361**
Real estate activities and renting of non-residential buildings	**1 135**	**1 454**	**1 922**	**2 087**	**2 713**
Dwellings	**1 125**	**1 629**	**1 988**	**1 578**	**1 180**
Other business services	**6 985**	**8 813**	**10 448**	**11 050**	**13 320**
Knowledge-based services	4 258	5 503	6 816	6 731	7 030
Travel agent, cleaning, and other operationel services	2 727	3 309	3 632	4 319	6 290
Public administration, education and health	**26 281**	**51 041**	**42 800**	**39 782**	**40 476**
Public administration, defence and compulsory social security	7 332	15 834	9 093	8 223	9 907
Education	8 916	13 778	11 377	11 263	13 861
Human health and social work	10 032	21 428	22 330	20 295	16 709
Arts, entertainment and other services	**6 762**	**8 298**	**7 802**	**8 181**	**8 375**
Arts, entertainment and recreation activities	3 259	4 891	5 116	5 275	5 731
Other service activities	3 504	3 407	2 685	2 906	2 645
Activities of households as employers of domestic personnel	-	-	-	-	-
Of which: Bunkering abroad by Danish-operated planes	1 448	2 360	3 777	7 144	15 346
Of which: Bunkering abroad by Danish-operated vehicles	-	-	-	-	25 739
Of which: Bunkering abroad by Danish-operated ships	91 959	96 821	117 645	244 464	449 794

[1] The Danish operated ships, planes and vehicles' bunkering abroad is part of the industry Transport.

www.statbank.dk/ene3h

Table 413 Manufacturers' energy consumption. 2012

	Solid fuel	Liquid fuel	Gas	Electricity	District heating
	thousand GJ				
Total[1]	**10 023**	**15 038**	**41 624**	**23 417**	**5 158**
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.

[1] Incl. extraction of gravel, clay, stone and salt, etc.

Table 414 Production of renewable energy

	1990	2000	2005	2010	2012
	TJ				
Renewable energy, total	**45 704 511**	**80 147 160**	**112 711 642**	**138 736 213**	**150 747 315**
Wind power	2 197 080	15 268 317	23 810 400	28 113 919	36 971 784
Hydro power	100 800	108 720	81 000	74 311	62 913
Solar power	-	4 320	7 776	21 698	373 900
Solar heat	99 800	330 700	411 465	635 641	1 253 877
Geothermal energy	96 000	116 078	343 983	424 656	287 584
Straw	12 481 150	15 893 450	21 023 550	23 269 600	26 626 350
Firewood	8 757 120	12 431 616	17 666 749	23 778 598	20 468 569
Wood chips	1 723 680	2 744 455	6 082 192	11 318 853	11 953 924
Wood pellets	1 575 000	3 092 916	4 718 600	4 364 425	4 628 275
Wood waste	6 191 013	6 895 078	6 499 627	8 500 208	9 706 535
Biogas	752 000	2 911 659	3 829 964	4 278 002	4 383 254
Bio oil	744 000	48 900	3 392 552	4 824 033	4 771 417
Heat pumps	2 462 400	3 585 484	4 058 263	8 159 122	8 636 501
Waste renewable	8 524 468	16 715 466	20 785 521	20 973 145	20 622 430

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