1

# **Environment and energy**

#### 1. Energy consumption

#### Denmark self-sufficient as regards energy

Since 1997, Denmark has been self-sufficient as regards energy thanks to the increased extraction of crude oil and natural gas from the North Sea. The own production of oil in 2001 was lower compared to 2000, due to an explosion in the Gorm oilfield, which hampered the oil production for a short period of time. This resulted in lower exports of oil in 2001.

#### More renewable energy sources

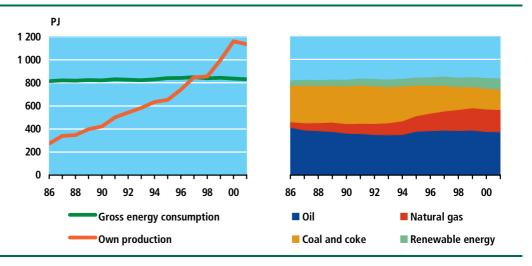
The consumption of oil and natural gas remained unchanged from 2000 to 2001, while the consumption of renewable energy increased. This plays a particularly important part as regards environmental issues, as an increase in the use of such energy can cause a reduction in carbon dioxide emissions by replacing the use of fossil fuels such as coal and oil. Renewable energy sources include the carbon-dioxide free types of energy such as wind power and solar power as well as carbon-dioxide neutral fuels such as hay and wood, which absorb carbon dioxide from the atmosphere during growth, only to release it again when burnt.

#### Stable energy consumption in recent years

Gross energy consumption comprises the consumption of oil, natural gas, coal and renewable energy. When calculating gross energy consumption, adjustments are made to take into account imports and exports of electricity. Total gross energy consumption has remained stable in recent years, whereas the composition of fuels has changed markedly, resulting in an increase in the consumption of natural gas and renewable energy and a subsequent decrease in coal consumption.

Figure 1

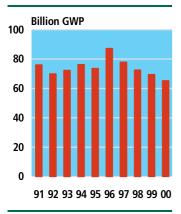
#### Gross energy consumption 1986-2001



## **Environment and energy**

#### 2. Air pollution

Figure 2 Emissions of greenhouse gases



#### **Greenhouse** gases

The air and the environment are subjected to a significant pressure created by humans from the burning of fossil fuels, which entails emissions of greenhouse gases such as carbon dioxide ( $CO_2$ ), laughing gas ( $N_2O$ ), methane ( $CH_4$ ), and chlorofluorocarbons (CFCs). Carbon dioxide is the most important of these substances. Greenhouse gases are not dangerous in themselves for human beings, but in greater quantities they are assumed to contribute to a gradual increase in average global temperatures.

#### Fall in emissions of greenhouse gases in recent years

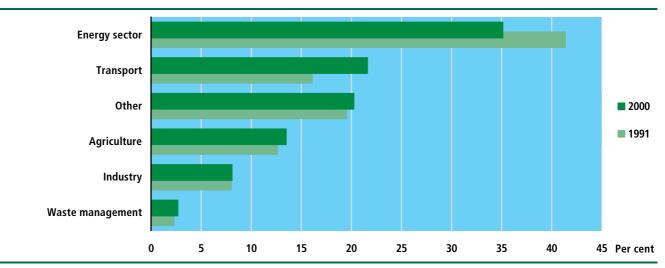
Denmark's emissions of carbon dioxide vary over the years, a fact which is partly due to the net exports of electricity. In the years where Denmark has a large export of electricity, carbon-dioxide emissions increase as power generation increases. However, reductions in the emissions of carbon dioxide have been achieved by replacing fossil fuels, such as coal, by natural gas and renewable energy and by an increase in energy effectiveness. The effect of the various greenhouse gases on the atmosphere varies. They are therefore converted to the so called GWPs (Global Warming Potential). GWP indicates the effect of the various green house gases converted to the quantity of carbon dioxide that would have the same climatic impact – 1 kg carbon dioxide corresponds to 1 GWP.

#### The energy sector is the main source of emissions – but the share has declined

The production of energy is the main source of carbon dioxide emissions, and here it is particularly the burning of coal and oil, which has a major impact on carbon dioxide emissions. The energy sector accounted for 35 per cent of the total emissions of greenhouse gases in 2000, but the share has declined since 1991, when the sector accounted for 41 per cent. The transport sector was also a large contributor accounting for 22 per cent of the total emissions in 2000. Here road transport accounted for the largest share. The majority of emissions of methane (CH<sub>4</sub>) come from agriculture and nature (e.g. emissions from ruminant animals and bogs). Emissions of laughing gas (N<sub>2</sub>O) result mainly from the use of nitrogenous fertilisers. Agriculture contributed with 14 per cent of total emissions of greenhouse gases in 2000.

Figure 3

#### Emissions of greenhouse gases (GWP) by sectors



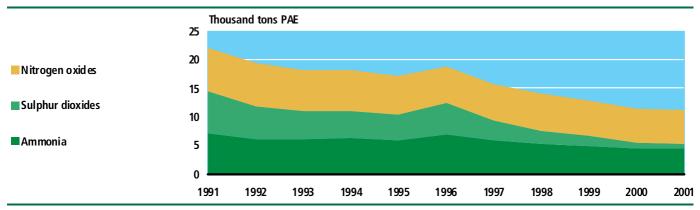
Environment and energy Statistical Yearbook 2001

3

#### Acidification

The environment is also subjected to significant pressure from the increased acidity of the air. Acidification occurs when emissions of nitrogen and sulphur fall with precipitation in the form of ammonia (NH<sub>3</sub>), nitrogen oxides (NO<sub>x</sub>) and sulphur dioxides SO<sub>2</sub>. Sulphur and nitrogen combine to form acidic chemical compounds which cause buildings to deteriorate and are harmful to plants and the aquatic environment. Acidification is calculated by means of Potential Acidification Equivalents (PAEs), which is a common acidification unit for all acidifying substances.

Figure 4 Acidification from Danish activities



Source: the National Environmental Research Institute of Denmark

The acidifying substances come mainly from agriculture, from energy conversion within the energy sector, and from the transport sector. In 1992, agriculture was the largest contributor, accounting for 40 per cent of the total Danish emissions. Energy conversion accounted for 34 per cent and the transport sector for 15 per cent. These percentages have changed: in 2001, agriculture accounted for the greater share of emissions, 52 per cent, while the transport sector accounted for 18 per cent and energy conversion accounted for 13 per cent. Emissions from the energy sector have declined due to the introduction of desulphurization plants and increasing consumption of natural gas at the expense of coal and oil.

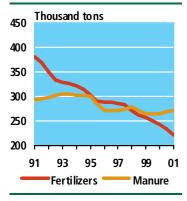
#### Transboundary gases

Acidifying substances are transboundary in nature. They are carried far and wide by the wind, and thus emissions from one country may fall and cause acidification of the environment in a different country. This means that part of the acidification potential from Danish activity contributes to acidification of the environment in a number of neighbouring countries, most of which are situated to the east of Denmark. Similarly, the Danish environment is not just exposed to acidification from Danish emissions, but also exposed to foreign emissions brought to Denmark by the wind, mostly from west.

## **Environment and energy**

#### 3. Agriculture

Figure 5
Nitrogen in manure and commercial fertilizers



#### **Declining use of fertilizers in agriculture**

Agricultural production of animal and vegetable products involves the use of manure and commercial fertilizers. This causes large quantities of nitrogen and small quantities of phosphorus to be discharged into the soil. Some nitrogen and phosphorus is not received by plants and as a consequence is leached from the soil, leading to a discharge of these substances into the ocean via the water run offs. The adverse effects include undesirable algae growth, resulting in an undesirable environmental state. The use of especially commercial fertilizers has declined over the last decade.

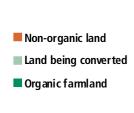
#### **Aquatic Environment Action Plan II**

The Aquatic Environment Action Plan II constitutes a response to this state. The leaching of nitrogen is to be reduced by measures such as extending wetlands, organic farming, and sowing crops after harvesting to absorb nitrogen from the soil. Another measure concerns stricter "harmony requirements", i.e. stricter regulations to ensure greater balance between the amount of manure produced and the corresponding land farmed at individual farms.

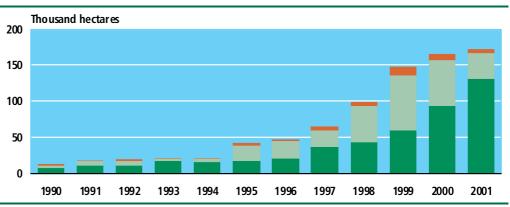
#### More organic farmland

The proportion of organic farmland has increased significantly during recent years. For example, the amount of land used for organic farming doubled from 1994 to 1995 and again from 1997 to 1998. The amount of land used for organic farming increased by 40 per cent from 2000 to 2001 and now covers 130,894 ha. Thus, organic farming accounted for 4.9 per cent of all Danish farmland in 2001.

Figure 6



#### Total areal extent of organic farms



Source: the Plant Directorate. Note: the areal extent includes forests.

#### Combat of weeds, pests, and fungi is harmful for the environment

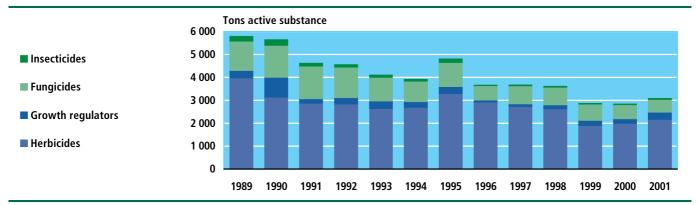
Pesticides are chemical products which are mainly used within agriculture to combat weeds, fungi, and insects. Effective control of pests, weeds, and fungi in fields has had an indirect effect on the number of animals, which feed on insects. The effect might be fatal or entail a reduction in the reproductive abilities of the relevant animals. Such harmful pressure on the environment entails a reduction in global biodiversity.

Environment and energy Statistical Yearbook 2001

Pesticides are divided into products, which protect crops against weeds, herbicides, against fungus infection, fungicides, and against insects, insecticides. There are also products, which shorten crops, growth regulators.

Figure 7

#### Pesticide sales to agriculture



Source: the Danish Environmental Protection Agency

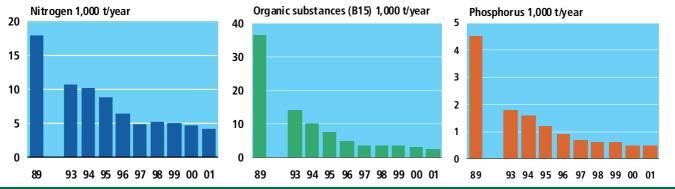
#### 4. Waste water

#### Emissions of nitrogen, organic substances, and phosphorus

The majority of all buildings in Denmark are connected to sewers, and most wastewater passes through municipal sewage treatment plants before being discharged into lakes, watercourses, or the ocean. Discharges of organic substances, nitrogen and phosphorus from sewage treatment plants were reduced from 2000 to 2001.

Figure 8

#### Discharges from sewage treatment plants



Source: the Danish Environmental Protection Agency

When rainfall goes up, water quantities in sewage treatment plants also rise. This entails a reduction in the effectiveness of the measures to remove nitrogen and organic substances, whereas the removal of phosphorus is not affected.

Almost 90 per cent of all Danish residential properties are connected to a municipal sewerage system. In the sewers, waste water from households is mixed with industrial effluents and water from the special drains for rainwater. A few enterprises have their own discharge points because of their distant location.

5

## **Environment and energy**

#### 5. Waste

6

#### **Household waste increases**

In 2001, the Danes produced 3.0 million tons of household waste. This is almost the same amount as in 2000. This correponds to 575 kg per citizen. The total waste quantities were 12.8 million tons. This constituted a minor decrease of 2 per cent in relation to 2000. The sewage treatment plants accounted for the largest decrease, as the quantity of sludge from sewage treatment plants decreased by 24 per cent in relation to 2000. Wholesale and retail trade, clerical occupations, manufacturing and construction produced 11 per cent less waste 2001, whereas the increase in institutions, construction and power plants waste was 17, 5 and 3 per cent respectively.

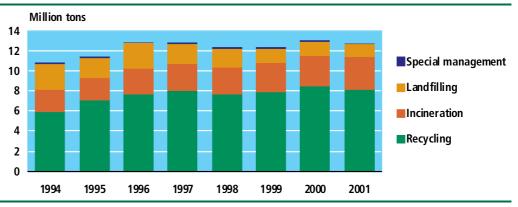
#### The most commonly used treatment of waste is recycling

In 2001, 64 pct. of the total amount of waste was recycled. The amount of incinerated waste made up 26 pct., and 10 pct. of the waste was deposited in refuse dumps and the like. Less than 1 pct. of the waste was subjected to special treatment. When it was decided to stop the depositing of waste suitable for incineration, the power plants were granted an exemption to make use of a temporary possibility of "storing" the waste until the refuse incineration plants had idle capacity. See consolidated act on waste no. 619 of 27 June 2000, subsection 3 of section 37. The storing of waste represented 109,000 tons or 1 pct. of the total amount of waste.

#### The construction industry accounted for the highest amount of waste

The majority of waste was collected from the construction industry, i.e. 27 per cent of total waste in 2001. This was closely followed by the household sector with 24 per cent. Manufacturing produced 21 per cent, wholesale and retail trade and clerical occupations produced 10 per cent. The sewage-treatment plants and the power plants produced 9 per cent each.

Figure 9 Total waste quantities



Note: improved data input is one of the causes of the significant increase up until 1996.

Source: the Danish Environmental Protection Agency

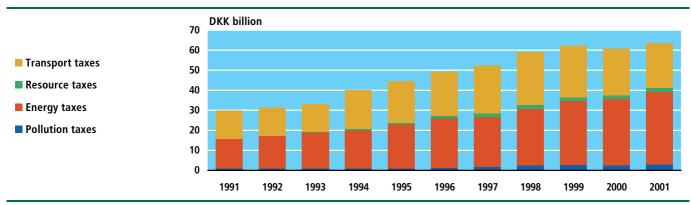
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#### 6. Public sector response

#### **Environmental taxes**

Denmark's environmental policy involves an increasing use of environmental taxes. Environmental taxes comprise pollution taxes, energy taxes, resource taxes and transport taxes. In 2001, the total revenue generated from these taxes was DKK 63.5 billion, corresponding to 9.6 per cent of total revenues from taxes and duties. Environmental taxes thus increased from 3.5 pct of gross domestic product in 1991 to 4.6 per cent in 2001. Energy taxes accounted for the greatest increase. Total revenue generated from energy taxes amounted to 36.4 billion in 2001, corresponding to 57.3 per cent of total revenue from the environmental taxes. In the same year, transport taxes accounted for DKK 22.4 billion or 35.4 per cent of environmental taxes. Pollution taxes accounted for 4.6 per cent and resource taxes 2.8 per cent

Figure 10 Environmental taxes



Energy taxes comprise taxes and duties on carbon dioxide, sulphur dioxide, electricity, natural gas, petrol and specific petroleum products. Transport taxes comprise taxes and duties on tyres, third-party liability insurance and sales of number plates for motor vehicles, weight duties and registration duties and passenger duties. Pollution taxes comprise taxes and duties on CFCs, PVCs, phthalates, chlorinate solvents, growth stimulants, pesticides, specific retail containers, nickel/cadmium batteries, and waste and waste water. Resource taxes comprise taxes and duties on game and fishing licence, quarrying and imports of raw materials, and piped water.

	Land and inland water area km <sup>2</sup>	Population 1. januar	Density of population per km <sup>2</sup>	Jutland and island (with official		Inland water area 1959	Coastline 1959 km
				Number	Area km²	km <sup>2</sup>	
Denmark	43 098,29 <sup>1</sup>	5 383 507	124,9	407	<b>43 098,29</b> 1,2	700	7 314
Regions							
Zealand	7 450,57	2 266 894	303,0	99	7 450,573	184	1 735
Lolland-Falster	1 795,34	114 186	63,6	45	1 795,344	24	587
Bornholm	588,55 <sup>1</sup>	44 060	74,9	9	588,55 <sup>1</sup>	3	141
Funen	3 485,84	473 471	135,8	100	3 485,84 <sup>5</sup>	26	1 130
The Islands, total	13 320,30 <sup>1</sup>	2 898 611	217,6	252	13 320,28	237	3 593
Jutland	29 777,99	2 484 896	83,4	154	29 777,99 <sup>2,6</sup>	463	3 721
Counties							
Copenhagen Municipality	88,25	501 285	5 680,3	2	0,237	3	92
Frederiksberg Municipality	8,77	91 435	10 425,9	•	•	0	•
Copenhagen County	528,26 <sup>1</sup>	618 016	1 169,9	3	122,33 <sup>7</sup>	15	121
Frederiksborg County	1 347,42	372 276	276,3	14	2,40	80	248
Roskilde County	891,42	236 151	264,9	18	0,27	7	154
West Zealand County	2 983,77	300 729	100,8	28	49,00	66	608
Storstrøm County	3 398,02	261 188	76,9	77	2 049,09	36	1 099
Bornholm County	588,55	44 060	74,9	9	588,53	3	141
Funen County	3 485,84	473 471	135,8	100	3 485,84	27	1 130
South Jutland County	3 939,12	253 013	64,2	14	450,07	119	567 <sup>8</sup>
Ribe County	3 131,61	224 257	71,6	4	64,83	23	207
Vejle County	2 996,64	353 284	117,9	10	17,04	26	264
Ringkøbing County	4 853,94	275 044	56,7	23	16,84	80	598
Århus County	4 560,73	649 177	142,3	40	148,73	77	635
Viborg County	4 122,51	234 496	56,9	15	392,49	90	646
North Jutland County	6 173,37	495 625	80,3	46	127,96	48	804
Faroe Islands <sup>9</sup>	1 398,85	47 821	33,7	<b>17</b> <sup>10</sup>	1 398,85		1 117 <sup>11</sup>
Greenland <sup>12</sup>	<b>410 449,00</b> <sup>13</sup>	56 542	0,1				

Note 1. The most southern point in Denmark is Gedserodde on Falster, 11°58′15″ east, 54°33′35″ north, the most northerly point is near Skagen 10°36′11″ east, 57°45′07″ north, the most westerly point is Blåvandshuk 08°04′22″ east, 55°33′36″ north, and the most easterly point is Christiansø (Østerskær), 15°11′55″ east, 55°19′17″ north. European Datum, 1950.

Note 2. The basic measurements were carried out by the Geodætisk Institut between 1953-1959 on the topographical maps current at that time (1:20,000), cf. *Danmarks Areal* (Statistiske Meddelelser 1968:4). Areas were transferred by Statistics Denmark in planimetric measurements to the current 4 cm maps (1:25.000).

Note 3. Areas in column 1 include all areas within the contours of the country. Fjords and inlets which have free passage to the sea (e.g. Ringkøbing fjord), are not included in the figures.

Note 4. The figures in columns 6 and 7 are from the 1959 planimetric measurements and they have not been transferred to more modern maps. In column 6, 4 lakes and 2 closed fjords, each of over 100 hectares (10 km²) are included: these are Arresø, Esrumsø, Mossø, Tissø, Saltbæk Vig and Stadil Fjord. There are 53 named islands in the Danish lakes with a total area of 1.97 km². The coastline is divided into counties according to the local authority allocation of 1 April 1970.

Note 5. Named lakes, water courses, etc. in parishes which were divided into municipalities, each in its own county, on 1 April 1970 are included in that county with the largest part of the parish.

Source: National Survey and Cadastra.

<sup>&</sup>lt;sup>1</sup> Allinge-Gudhjem has got 2 ha from Østersøen. <sup>2</sup> Including the Jutland peninsular of 23,874.24 km². <sup>3</sup> Including the island of Zealand with 7,031.30 km². <sup>3</sup> Including the islands of Lolland, 1,242.86 km² and Falster 513.76 km². <sup>5</sup> Of this, the island of Funen accounts for 2,984.55 km². <sup>6</sup> Including Vendsyssel-Thy, 4,685.73 km². <sup>7</sup> All of the island of Amager is included under Copenhagen Municipality with 96.29 km². <sup>8</sup> The border with Germany was measured as 67.7 km. In length. <sup>9</sup> marts the 1.st <sup>10</sup> Inhabited islands. <sup>11</sup> Measured in 1955. <sup>12</sup> january thr 1. st 2002 <sup>13</sup> Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km², of which 81 pct. is covered by inland ice.

#### Division of administration, Denmark 2003

	Municipality	Parish	Customs and tax region	Assessment districts	Valuation districts	Consti	tuency <sup>1</sup>		Judicial district
			ý			Counties and large constituencies	Constit	uency	
Total	271	2 125	29	27	224	17		103	82
The Islands	130	893	16	14	121	10		58	40
Copenhagen Municipality Frederiksberg Municipality	1 1	71 10	2	1	13	3	{	16 3	1 1
Copenhagen County	18	70	4 <sup>2,3</sup>	2	22	1		9	10
Frederiksborg County	19	78	22	2	17	1		4	5
Roskilde County	11	68	_3 1_	1	10	1		3	2
West Zealand County	23	167	2 <sup>5</sup> 2 <sup>5</sup>	2	17	1		6	7
Storstrøm County	24	182	2°	2	16	1		6	6
Bornholm County	1 <sup>6</sup>	22	1	1	3	1		2	1
Funen County	32	225	2	3	23	1		9	7
Jutland	141	1 232	13	13	103	7		45	42
South Jutland County	23	116	2	2	12	1		7	6
Ribe County	14	88	1	1	9	1		4	5
Vejle County	16	135	1 8,9	2	13	1		6	5
Ringkøbing County	18	143	29	1	12	1		4	6
Århus County	26	285	3 <sup>8,10</sup>	3	22	1		10	6
Viborg County	17	225	2 11,12 2 10 11 12	2	14	1		5	5 <sup>13</sup>
North Jutland County	27	240	2 2 <sup>10,11,12</sup>	2	21	1		9	9 <sup>13</sup>

Note 1. Judicial system: There are two High-Court districts and 15 jury districts. The East High-Court District covers the islands which are divided into 9 jury districts. The West High-Court District covers Jutland and is divided into 6 jury districts.

Note 2. Conscription districts: There are 6 conscription districts, 2 east and 4 west of Storebælt. With regard to ecclesiastical matters, there are 10 parishes (111 rural deans and 1,352 reverends).

Note 3. Danish Working Environment Service: There are 14 Inspection Districts: Copenhagen and Frederiksberg Municipality comprise 1 district, Roskilde and Bornholm county comprise 1 district, whilst the remainder of Denmark's 12 counties each comprise 1 district.

Note 4. The Public Employment Office: There are 14 public employment offices: Copenhagen and Frederiksberg municipality and Copenhagen county which has 1 office, whilst the remainder of Denmark's 13 counties each have 1 office.

<sup>1</sup> In accordance with Act no. 488 of 11 June 1998 regarding election to the Folketing. <sup>2</sup> Farum Municipality and Frederiksborg County are under the auspices of Ballerup Customs and Tax Region, which is included in Copenhagen County. <sup>3</sup> Greve Municipality, Roskilde County are under the auspices of Høje Tåstrup Customs and Tax Region, which is included in Copenhagen County. <sup>4</sup> Part of Police District 13 Køge is in Storstrøm County. <sup>5</sup> Haslev Municipality and West Zealand County are under the auspices of Næstved Customs and Tax Region, which is included in Storstrøm County. <sup>6</sup> With the exception of Christiansø, which is not comprised by the division of municipalities; the island is administered by the Ministry of Defence. <sup>7</sup> Part of judicial district 51, Grindsted, is in Vejle County. <sup>8</sup> Brædstrup, Gedved, Horsens and Juelsminde and from 2000 also Hedensted and Tørring-Uldum municipalities, Vejle County, are under the auspices of Horsens Customs and Tax Region, which is included in Århus County. <sup>9</sup> Nørre Snede municipaliti , Vejle County is moved to Herning Customs and Tax Region. <sup>10</sup> Hobro Municipalities, North Jutland County are under the auspices of Randers Customs and Tax Region, which is included in Århus County. <sup>11</sup> Farsø, Nørager and Aars Municipalities, North Jutland County, are under the auspices of Viborg Customs and Tax Region, which is included in Viborg County. <sup>12</sup> Brovst, Fjerritslev and Løgstør Municipalities, North Jutland County, are under the auspices of Thisted Customs and Tax Region, which is included in Viborg County. <sup>13</sup> Part of Judicial District 78, Hobro, and part of Police District 52, Hobro, is in Viborg County.

 Table 3
 Area and population. Regions and inhabited islands

Muni	-	Area	Popul	ation	Muni	-	Area	Popul	ation
cipa-		in ha	1 :	1 :	cipa-		in ha	1 ionuar	1 :
lity code		2003	1. januar 2002	1. januar 2003	lity code		2003	1. januar 2002	1. januar 2003
	Whole country <sup>1</sup>	4 309 829	5 368 354	5 383 507		Funen and its islands	348 584	472 504	473 471
					424	Funen	298 456	440 680	441 795
	Zealand and				431	Avernakø	586	123	121
	its islands	745 057	2 259 320	2 266 894	443	Birkholm	92	9	8
224	Zealand	703 130	2 088 963	2 096 449	431	Bjørnø	150	39	33
331	Agersø	684	251	253	421	Bågø	623	35	35
- 265	Amager	9 629	156 268	156 377	479	Drejø Empa	426 394	69	72
365 331	Bogø Egholm	1 307 99	1 065 0	1 061 3	445 479	Fænø	90	3 14	2 14
373	Egholm Enø	340	261	263	4/9	Hjortø	28 384	14 219	14 148
229	Eskilsø	139	4	203	431	Langeland	605	14 2 19	14 146
365	Farø	93	5	3	487	Lyø Siø	131	24	22
373	Gavnø	575	22	26	479	Skarø	197	35	39
331	Glænø	559	59	57	475	Strynø	488	203	216
221	Hesselø	71	2	2	475	Thurø	753	3 651	3 655
361	Langø	127	5	5	447	Tornø	21	2	2
365	Lindholm	7	3	3	447	Torø	64	3	0
397	Masnedø	168	164	151	479	Tåsinge	6 979	6 054	6 111
365	Møn	21 775	10 600	10 580	473	Æbelø	232	2	2
301	Nekselø	21 773	26	24	423	Ærø	8 807	7 191	7 050
365	Nyord	499	47	50		81 named islands	1 106	7 131	7 030
331	Omø	452	177	193		o i ilallicu islalius	1 100	•	•
315	Orø	1 502	989	977		Jutland	2 977 799	2 477 860	2 484 896
185	Saltholm	1 502	8	3	_	Jutland peninsular	2 387 430	2 083 421	2 091 186
301	Sejerø	1 237	375	387	_	Vendsyssel-Thy	468 573	307 017	306 373
101	Slotsholmen	21	22	22	- 773	Agerø	385	28	300 373
361	Tærø	175	4	3	727	Alrø	751	162	149
301	76 named islands	646	•	•	121	Als	31 222	51 480	51 533
	70 Harrieu Islanus	040	•	•	707	Anholt	2 237	166	157
	Lolland, Falster				545	Barsø	266	24	25
	and their islands	179 534	114 473	114 186	851	Egholm	600	53	52 52
	Lolland	124 286	70 201	69 796	615	Endelave	1 308	173	177
	Falster	51 376	43 442	43 537	563	Fanø	5 578	3 227	3 169
363	Askø	282	43 442 57	45 557 56	783	Fur	2 229	945	939
381	Barneholm	10	2	0	813	Hirsholm	17	4	4
379	Fejø	1 600	579	615	619	Hjarnø	321	114	119
379		1 138	164	156		Jegindø	791	556	562
363	Lilleø	86	15	15	529	Kalvø	18	11	11
379	Skalø	106	10	7	827	Livø	331	8	8
379	Vejlø	37	10	, 1	825	Læsø	10 122	2 268	2 228
379	Vejrø	157	2	3	571	Mandø	763	62	60
313	35 named islands	456	•	•	773	Mors	36 331	22 638	22 641
	33 Hamea Islanas	430	•	•	531	Rømø	12 886	753	729
	Bornholm and				741	Samsø	11 206	4 251	4 221
	its islands <sup>1</sup>	58 855	44 197	44 060	503	Store Okseø	11 200	4 2 3 1	4 221
400	Bornholm <sup>1</sup>	58 815	44 091	43 956	727	Tunø	352	97	108
411	Christiansø <sup>2</sup>	25	106	104	671	Venø	646	198	206
411	Frederiksø <sup>2</sup>	4	100	104	515	Årø	566	200	200
411	6 named islands	11		•	"	129 named islands	2 859	200	204
711	ט וומוווכע ואומוועא	11	•	•		123 Hameu Islanus	2 033	•	•

Note. Als includes the following municipalities: 501, 523, 535 plus 24,470 people in Sønderborg Municipality. - Amager includes the following habitants municipalities: 155 and 185 (excl. Saltholm) plus 103,886 people in Copenhagen Municipality. - Falster includes the following municipalities: 369 (excl. Toreby parish), 375, 391 and 395. - Langeland includes the following municipalities: 475 (excl. the island of Strynø), 481 and 487 (excl. the island of Siø). - Lolland includes the following municipalities: 355, 359, 363 (excl. the islands of Askø and Lilleø), Toreby parish in Nykøbing F. Municipality, 367, 371, 379 (excl. the islands of Fejø, Femø, Skalø, Vejlø and Vejrø, 381 (excl. Barneholm), 383 and 387.- Vendsyssel-Thy includes the following municipalities: 675 (excl. the island of Jegindø), 765, 785, 787, 803, 805, 807, 811, 813 (excl. Hirsholm), 817, 819, 821, 829, 835, 839, 841, 847, 849 plus 37,374 people in Aalborg Municipality, Aggersborg parish 505 people in Løgstør Municipality. - Ærø includes municipality 443 (excl. the island of Birkholm) and municipality 493. In total 321 named islands are without inhabitants.

<sup>&</sup>lt;sup>1</sup> Allinge-Gudhjem has got 2 ha from Østersøen. <sup>2</sup> Not included in the division of municipalities, administered by the Ministry of Defence.

	Km <sup>2</sup>	Per cent
Total area	43 560,76	100.00
Artificial surfaces	4 246,46	9.75
Urban fabric, industrial and commercial units <sup>2</sup>	3 154,63	7.24
Motorway	43,96	0.10
Expressway	9,10	0.02
Road > 6 metre	269,02	0.62
Road 3 –6 metre	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 17,46	0.05 0.04
Technically sites	17,46 6,96	0.04
Cemetery Sport facilities	52,18	0.02
Leisure facilities	57,44	0.12
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 heathland	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 wetslands	205,66	0.47
Peatbogs Call manufact	875,60	2.01
Salt marshes	384,74	0.88
Water bodies	670,59	1.54
Lake	616,49	1.42
Stream > 8- 12 metre	49,42	0.11
Reeds	0,34	0.00
Fish farm	4,34	0.01
Unclassified	682,65	1.57

Note. The Primary data are *arealanvendelseskortet; Areal Information System,* (The Ministry of Environment). Further information can be obtained on www.ais.dk. The figures are a revision (not an update) of the collected data. The National Environmental Research Institute has done the revision in 2001. The classification is based on the tree digit *CORINE lana cover nomenclature,* as a 4'th. number is added for national purpose.

 $Source: The \ National \ Environmental \ Research \ Institute, \ www.dmu.dk.$ 

Environment and energy Statistical Yearbook 2003

<sup>&</sup>lt;sup>1</sup> The figures are based on different primary data covering the period from the end of the 1980's to the middle of the 1990's. <sup>2</sup> Include city center, human locality area with low buildings, human locality area with high buildings, Built-up area in rural areas and industrial area. Roads are not included.

	1965		1982	
	km <sup>2</sup>	per cent	km <sup>2</sup>	per cent
Total area	43 070	100	43 080	100
Urban areas, residential and industrial <sup>1</sup>	3 890	9	5 350	12
Hedgerows, ditches, track roads, etc.	1 370	3	1 130	3
Cultivated land, market gardens and orchards	26 930	62	26 510	61
Forests and plantations, incl. agricultural forests	4 720	11	5 010	12
Meadows, marshland, etc.	3 250	8	2 460	6
Mooreland, sand dunes and bogs	2 230	5	1 980	5
Lakes and streams	680	2	640	1

Note. Figures are partly estimates and include some uncertainty.

<sup>&</sup>lt;sup>1</sup> Urban areas, residential and industrial includes summer dwelling areas, roads, and spread residences.

	Preserved areas before and incl. 1990	Preserved in 1991- 1995	Preserved in 1996- 2000	Preserved in 2001	Preserved areas total up to 2001	Preserved areas as pct. of the total area
			km	2		
All Denmark	1 846	97	59	31	2 003	4.7
Copenhagen region <sup>1</sup> Divided after 1997:	285	14	19	8	325	11.3
- Copenhagen Municipality				2	2	
- Copenhagen County			1	5	5	
<ul> <li>Frederiksborg County</li> </ul>			2	1	2	
- Roskilde County			1	-	1	
West Zealand County	121	21	1	3	146	4.9
Storstrøm County	108	16	0	-	124	3.7
Bornholm County	36	-	2	-	38	6.4
Funen County	54	11	-	-	65	1.9
South Jutland County	92	4	2	-	98	2.5
Ribe County	111	2	-	-	112	3.6
Vejle County	131	1	15	0	146	4.9
Ringkøbing County	181	1	0	1	184	3.8
Århus County	204	12	0	5	222	4.9
Viborg County	254	11	-	-	265	6.4
North Jutland County	271	5	19	14	308	5.0
Territorial waters	1 381	90	982	-	2 452	

Note. Figures cover areas where preservation has been determined by the F*redningsnævn* (preservation board) or the O*verfredningsnævnet* (head preservation board) (for territorial waters by statutory order).

<sup>&</sup>lt;sup>1</sup> From 1998 it is possible to get the preserved areas for each county in the Copenhagen region.

Source: National Forest and Nature Agency.

Table 7Denmark's largest lakes

Lake's name	Location	1980-89 1999-2002		Lake's name	Location	1980-89 199	99-2002
		km <sup>2</sup>				km <sup>2</sup> -	
Arresø	Zealand	39.5	39.5	Søndersø	Lolland	8.5	8.4
Esrum Lake	Zealand	17.4	17.4	Tystrup Lake	Zealand		6.7
Stadil Fjord <sup>1</sup>	West Jutland	18.5	17.3	Tømmerby Fjord	North Jutland		6.0
Mossø	East Jutland	16.6	16.6	Vejlen/Ulvedyb	North Jutland		5.9
Saltbæk Vig <sup>1</sup>	Zealand	15.6	16.1	Julsø	East Jutland		5.8
Tissø	Zealand	12.7	12.7	Tange Lake	West Jutland	5.5	5.5
Furesø	Zealand	9.3	9.3	Lund Fjord	North Jutland	5.4	5.1
Skanderborg Lake	East Jutland	8.0	8.6	•			

Note. 1980–89: Areas are calculated on the basis of the latest edition of the Geodætisk Institut's 4 cm maps up to 1988–89. The measurement basis spans from revised older maps, where the degree of revision is unknown, to modern photogrametric maps. Named lakes are lakes which are named on maps.

Source: National Survey and Cadastre.

<sup>&</sup>lt;sup>1</sup> Area of brackish water.

Table 8

#### Meteorological conditions. Temperature and degree-days

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	All year
Maximum temperature <sup>2</sup> 1874-2002 Temp. Measured during the years 2002	12.0 <i>1999</i> 10.3	15.8 <i>1990</i> 13.3	22.2 <i>1990</i> 17.3	28.6 <i>1993</i> 19.7	32.8 <i>1892</i> 25.7	35.5 <i>1947</i> 32.4	35.3 <i>1941</i> 31.7	36.4 <i>1975</i> 32.1	32.3 <i>1906</i> 26.5	24.1 <i>1978</i> 21.3	18.5 <i>1968</i> 11.7	14.5 <i>1953</i> 7.3	36.4 1975 32.4
	10.3	13.3	17.3	19.7	25.7	32.4	31./	32.1	20.5	21.3	11.7	7.3	32.4
Average daily tempera- ture <sup>1</sup>													
Normal (1961-1990) 2002	2.0 4.8	2.2 6.6	4.9 7.6	9.6 11.0	15.0 16.6	18.7 19.4	19.8 20.8	20.0 23.9	16.4 18.8	12.1 10.1	7.0 6.0	3.7 1.8	10.9 12.3
Mean temperature													
Normal (1961-1990) 2002	0.0 3.0	0.0 4.3	2.1 4.3	5.7 7.3	10.8 12.8	14.3 15.6	15.6 17.1	15.7 19.7	12.7 14.7	9.1 7.2	4.7 4.3	1.6 0.2	7.7 9.2
Average nightly tempera- ture <sup>1</sup>													
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
2002	0.9	1.8	1.0	3.7	9.3	12.1	13.6	15.8	10.0	4.0	2.2	-1.7	6.1
Minimum temperature <sup>2</sup>													
1874-2002 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 2002	<i>1982</i> -12.5	<i>1942</i> -11.7	<i>1888</i> -7.7	<i>1922</i> -4.9	<i>1900</i> -0.4	<i>1936</i> 1.4	<i>1903</i> 7.5	<i>1885</i> 7.9	<i>1886</i> -2.5	<i>1880</i> -5.0	<i>1973</i> -6.1	<i>1981</i> -13.2	<i>1982</i> -13.2
Degree-days													
Normal (1971-1990) 2002	516 434	4733 356	452 393	339 292	186 132	 (53)	(34)	(1)	136 83	251 304	361 380	461 521	3 175 2896

Note. Daily measurements at a number of stations throughout the country - as a rule 40 stations - have been used as the basis for the monthly national averages in the table. Annual values may take account of decimals which are not included in the monthly averages. Normals are averages for a number of years, as a rule 30, and they state the expected figures for a day in January, February, etc.

Source: Danish Meteorological Institute.

<sup>&</sup>lt;sup>1</sup> The average day temperature/night temperature is calculated from the highest/lowest daily temperatures at 30 stations. *Mean temperature* is calculated from 3 or 8 daily observations. *Degree days* are used as a measurement for heating needs in the heating season (1 September –31 May). Degree days in the summer period are in brackets. This is because degree days only very seldom are used during the summer period and for the same reason no normals are calculated for this period. Degree days are shade-temperature days and they are stated as averages for the whole country. The degree-days figure is the sum of the degree days for individual months. The size of the degree-days figure is converted to a percentage of the normal to give consumption in the individual heating season. <sup>2</sup> A maximum/minimum thermometer registers the *highest/lowest temperature* in a day from all the about 150 stations. Absolute maximum/minimum in the years 1874-2001 are found by extracting the highest/lowest temperature from the about 150 stationer (approx. 100 before 1960). Measured during the most recent year the temperature occurred. <sup>3</sup> 28 days, 506 when there are 29 days in February.

 Table 9
 Meteorological conditions. Precipitation, sunshine hours, etc. 2002

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year total
Precipitation							— mm –						
Normal (1961-1990)	57	38	46	41	48	55	66	67	73	76	79	68	712
All Denmark	89	109	39	33	47	102	111	75	31	113	87	31	864
Cph Municipality,	84	94	26	23	55	83	113	75	26	115	76	31	801
Frb.Municipality, Cph.													
County, Fr.borg County, and													
Roskilde County													
West Zealand County	71	78	25	27	55	79	101	68	49	90	83	22	748
Storstrøm County	58	89	24	28	49	71	92	49	42	114	100	26	742
Bornholm County	67	84	40	28	38	68	75	37	54	188	55	28	762
Funen County	72	87	33	29	34	82	114	39	19	93	101	23	726
South Jutland County	99	126	43	41	54	109	132	90	24	123	99	37	977
Ribe County	97	123	36	49	39	115	112	66	23	129	85	33	907
Vejle County	93	124	40	34	61	111	131	94	19	119	89	26	941
Ringkøbing County	110	132	46	45	36	115	99	52	33	131	74	34	907
Aarhus County	71	99	38	25	45	110	114	66	34	97	84	26	809
Viborg County	95	122	46	32	43	110	92	78	42	102	76	37	875
North Jutland County	100	103	47	23	48	98	131	93	42	110	88	33	916
							<ul><li>per cent</li></ul>	-					
Relative humidity, all Deni	mark <sup>1</sup>												
Normal (1961-1990)	91	90	87	80	75	77	79	79	83	87	89	90	84
2002	91	87	82	80	80	78	81	79	78	84	89	85	83
Cloud cover, all Den- mark <sup>2</sup>													
Normal (1961-1990)	79	73	69	63	60	59	62	59	63	70	74	77	67
2002	80	65	55	60	56	52	57	46	45	67	82	79	62
2002	00	03	33	00	30	32		-10	73	07	02	,,	02
							— hours -						
Bright sunshine, all Den-													
mark <sup>3</sup>													
Normal (1961-1990)	43	69	110	162	209	209	196	186	128	87	54		1495
2002	36	83	155	149	212	255	202	238	201	90	38	30	1691
							— НРа –						
Mean air pressure (sea le	vel)												
Aalborg	1012.9							1 016.0					
Copenhagen Airport	1016.0	1 002.9	1 014.8	1 017.6	1 015.0	1 013.9	1 012.9	1 016.1	1 018.9	1 010.8	1 011.1	1 022.8	1 014.4
							– per cent						
Wind incidence <sup>4</sup>	100	100	100	100	100	100	100	100	100	100	100	100	100
North	2	5	6	7	7	2	7	6	11	7	7		
North-East	2	2	5	19	12	4	11	14	11	15	11	14	
East	1	2	7	25	22	18	14	35	16	23	34	39	20
South-East	2	2	8	10	14	9	7	13	5	7	16	23	10
South	20	12	10	14	8	8	11	3	7	9	14	3	10
South-West	39	36	25	11	16	20	17	8	12	11	8	6	17
West	28	36	30	10	14	34	24	10	23	17	6	6	20
North-West	6	7	9	5	5	5	8	9	13	9	4	3	
Calm	<	0	<	1	1	1	1	2	2	1	1	<	1
							— m/s –						
Mean wind force <sup>5</sup>													
2002	6.3	7.4	5.9	4.6	4.7	5.7	4.6	4.2	4.1	5.3	5.0	5.6	5.3
2002	0.5	7.4	5.9	4.0	4.7	٦./	4.0	4.2	4.1	ر. د	5.0	٥.د	ر. ر

Note. *Precipitation* is stated as the height the surface of water would rise if it could not run away or evaporate. The figures stated are national averages of approximately 100 stations throughout the country. Totals for months and years are calculated taking account of decimals. Account is taken of area for the individual counties. See also note to the table on temperature and degree days. 'All Denmark' does not include Bornholm.

Source: Danish Meteorological Institute.

Air pressure is the weight of a column of air with a cross-sectional area of 1 cm<sup>2</sup> which rests on a horizontal plane. It is measured in hPa = hectopascals = millibar.

<sup>&</sup>lt;sup>1</sup> Humidity states, in percent, the relationship between the actual water vapour in the air and the amount which would be necessary to saturate the air at the given temperature. <sup>2</sup> Cloud cover is the percentage of the sky which is covered by clouds. <sup>3</sup> Sunshine hours (bright sunshine, i.e. 200 watt pr. m²). DMI now observed the hours of bright sunshine using measurements of global radiation instead of measurements from a traditional Campbell-Stokes sunshine recorder. The new method is without questions more precise than the old one, but implies at the same time that "new" and old hours of sunshine not directly can be compared. Typical values are lower during the summertime and higher during winter compares to the "old" values. <sup>4</sup> Wind incidence from 10 coastal stations states the percentage distribution of the daily observations in the 8 wind directions and no wind < means less than 0.5 %. <sup>5</sup> Mean wind force m/s from 10 coastal stations.

Table 10

#### Meteorological conditions. Daily information 2002

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year total
Number of days within a month all Denmark													
<b>Summer days (max. &gt;25°)</b> Normal (1961-1990) 2002	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2	1.9 1.1	2.6 5.7	2.3 8.5	0.1 0.3	0.0 0.0	0.0 0.0	0.0 0.0	7.2 15.6
Ice days (max. <0°) Normal (1961-1990) 2002	8.6 2.5	7.5 0.1	2.2 0.0	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.6 0.1	4.0 6.7	23.0 9.5
Frost days (min. <0°) Normal (1961-1990) 2001	19.0 9.9	19.0 8.5	15.0 10.2	6.6 4.7	0.7	< 0.0	0.0 0.0	0.0 0.0	0.2 0.5	1.8 3.6	7.3 5.8	15.0 20.8	84.0 63.9
<b>Days with fog</b> Normal (1961-1990) 2002	10.0 11.0	9.3 3.2	9.2 6.9	7.5 5.7	5.1 5.3	2.6 2.5	2.6 3.8	3.2 9.2	4.3 12.3	7.0 8.4	5.7 8.9	7.0 6.5	74.0 83.7
<b>Precipitation days (R <sup>3</sup> 0.1 mm)</b> Normal (1961-1990) 2002	17.0 19.6	13.0 21.6	14.0 11.8	12.0 9.7	12.0 13.8	12.0 15.2	13.0 16.0	13.0 9.9	15.0 7.3	16.0 19.8	18.0 18.5	17.0 9.1	171.0 172.2
Heavy precipitation days (R <sup>3</sup>													
<b>10 mm)</b> Normal (1961-1990) 2002	1.1 2.5	0.5 2.6	0.7 0.6	0.7 0.7	1.1 1.0	1.5 2.9	1.8 3.3	1.8 2.4	2.0 1.0	2.2 4.3	2.0 2.6	1.6 0.8	17.0 24.7
<b>Days with snow</b> Normal (1961-1990) 2002	7.6 1.9	6.4 6.4	5.3 1.8	2.6 0.0	0.2 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.1	2.3 0.8	5.8 2.4	30.0 13.3
Windy days in pct. 2002	13	22	11	3	1	5	4	1	1	7	4	5	7
Days with thunder Normal (1961-1990) 2002	0.1 0.0	0.1 0.4	0.1 0.4	0.2 0.2	1.3 2.3	2.0 5.3	2.3 2.9	2.2 4.8	1.3 0.8	0.6 0.5	0.3 0.0	0.1 0.0	11.0 17.5

Note. Summer days are days where the highest temperature is over 25° Celsius. Ice days are days where the highest temperature is under 0° Celsius. Frost days are days where the lowest temperature is under 0° Celsius. Days with fog are days where fog is observed around the station. Precipitation days are days with precipitation of 0.1 mm or more. Heavy precipitation days are days with precipitation of 10 mm or more. Days with snowfall of 0.1 mm or more measured after melting. Windy days have wind of more than 10.8 m/sec. Registered at coastal stations. Days with thunder are a national average of thunder days from individual stations. When the number of days is less than 10, a tenth is included.

Source: Danish Meteorological Institute.

<sup>&</sup>lt; means less than 0.1 but greater than 0.0. See also the note to the table on temperature and degree days.

Table 11Air pollution in cities

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
					µg/m³ sulphur	r dioxide —				
Copenhagen	14.1	11.5	8.7	9.0	7.0	4.6	4.3	4.0	3.3	1
Ålborg	7.1	6.6	4.6	4.0	5.0	2.7	2.7	1.8		1
Odense	6.9	6.5	4.3	3.8	4.9	2.6	2.1	1.7	1.3	1
				<del></del>	ug/m³ nitroger	n dioxide ——				
Copenhagen	51.7	43.4	46.7	53.0	44.7	42.6	42.9	46.8	42.0	40.0
Ålborg	37.8	38.0	36.1	37.4	37.6	33.6	34.2	40.1	35.1	34.7
Odense	36.4	36.6	35.8	34.4	34.0	35.5	31.6	32.9	31.2	31.2
					—— ng/m³ le	ad ———				
Copenhagen	198.6	119.1	37.1	26.0	24.8	16.6	16.4	16.6	29.6	$23.4^{2}$
Ålborg	212.0	140.1	44.7	31.4	18.6	13.9	13.0	12.5		12.5 <sup>2</sup>
Odense	130.4	96.5	31.9	22.3	22.0	14.9	14.5	13.6	13.0	11.3
					– μg/m³ partio	culates ——				<del></del>
Copenhagen	73.6	69.6	64.7	61.1	65.3	46.8	45.5	47.2	48.7	34.1 <sup>2</sup>
Ålborg	59.1	63.5	61.1	55.7	68.9	53.7	50.7	51.3		28.8 <sup>2</sup>
Odense	59.8	62.1	55.6	53.2	62.7	61.4	45.6	46.6	47.6	47.6 <sup>2</sup>

Note.  $\mu g/m^3$  corresponds to a millionth of a gram per cubic meter, while  $ng/m^3$  corresponds to a billionth of a gram per cubic meter.

Source: Danish National Environmental Research Institute.

<sup>&</sup>lt;sup>1</sup> Due to the low concentration of sulphur dioxide in the air, measurements have been discontinued. <sup>2</sup> Definition has been changed from Total Suspended Particles to PM10.

Table 12

# Ozone layer over Denmark

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	All year		
	DU <sup>1</sup>														
1980	354	357	396	417	403	376	367	327	300	308	302	323	353		
1985	375	383	392	395	371	366	339	311	296	265	300	321	343		
1990	310	344	361	380	356	351	340	317	294	274	297	308	328		
1995	321	357	372	358	350	324	311	294	297	269	277	307	320		
2000	305	339	340	352	348	335	336	306	280	279	282	326	319		
2001	326	359	389	397	357	359	324	306	304	275	272	299	331		
2002	300	358	364	375	338	342	321	304	283	301	295	273	321		

<sup>&</sup>lt;sup>1</sup> The ozone layer in Dobson units (DU). This measurement states how many hundredths of a millimetre thick the ozone layer would be if it was collected at the surface of the earth.

Source: Danish Meteorological Institute.

Table 13

# Emissions and depositions in Denmark 1998

	Danish emissions tr	Danish emissions transported to selected countries Depositions in Denmark from			nmark from selecte	m selected countries	
	Sulphur from SO <sub>2</sub>	Nitrogen from NO <sub>X</sub>	Nitrogen from NH <sub>2</sub>	Sulphur from SO <sub>2</sub>	Nitrogen from NO <sub>X</sub>	Nitrogen from NH <sub>4</sub>	
			ton	s —			
Denmark	5 900	2 700	26 300	5 900	2 700	26 300	
Sweden	4 800	7 200	8 400	300	700	600	
Norway	1 600	2 500	2 500	100	500	100	
Finland	800	1 500	800	0	100	0	
United Kingdom	500	1 100	700	8 100	4 600	700	
Germany	1 700	2 400	3 300	5 600	4 000	7 300	
Netherlands	100	200	100	500	1 600	1 100	
Belgium	0	100	0	800	700	400	
France	200	500	100	1 300	1 500	800	
Poland	1 900	3 400	2 500	2 800	900	600	
Czech Republic and Slovakia	200	400	200	1 000	400	200	
Former USSR, European part	3 900	8 500	3 200	700	300	200	
Sea areas	16 200	19 600	37 200	7 800	5 700	0	
Other	300	20 500	0	3 400	900	500	

Source: EMEP/the Norwegian Meteorological Institute.

# Emissions from the transport sector 2000

	CO <sub>2</sub>	$NO_x$	SO <sub>2</sub>	CO
		thousand tons		
Total <sup>1</sup>	12 795	97	3,1	331
Road transport	11 298	75	0,5	317
Railway transport	228	2	0,0	0
Air transport	137	1	0,0	2
Sea transport	1 132	20	2,5	12
		——— per cent —		
Total <sup>1</sup>	100	100	100	100
Road transport	88	77	18	96
Railway transport	2	2	0	0
Air transport	1	1	1	1
Sea transport	9	21	81	4

 $Source: \ National\ Environmental\ Research\ Institute\ of\ Denmark,\ Corinair database.$ 

<sup>&</sup>lt;sup>1</sup> Emissions from military not included.

Table 15

# Emission of greenhouse gases<sup>1</sup>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
					—— mia. GV	VP —				
Total	87	80	82	86	83	97	87	82	79	74
Transport	14	14	14	15	15	15	15	15	16	16
Manufacturing and										
production	7	6	6	7	7	8	8	7	7	6
Energy sector	36	30	32	36	33	45	36	32	29	26
Waste disposal	2	2	2	2	2	2	2	2	2	2
Agriculture	11	11	11	11	11	10	10	10	10	10
Other	17	16	17	16	16	17	16	15	16	15

<sup>&</sup>lt;sup>1</sup> Carbon dioxide, laughing gas and methane.

Source: Danmarks Miljøundersøgelser.

Table 16

## Emission of acidification<sup>1</sup>

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
					thousand to	ns PAE ——				
Total	19	18	18	17	19	16	14	13	12	11
Transport	3	3	3	3	3	3	2	2	2	2
Manufacturing and										
production	1	1	1	1	1	1	1	1	1	1
Energy sector	7	6	6	5	7	4	3	2	1	1
Waste disposal	-	-	-	-	-	-	-	-	-	-
Agriculture	7	7	7	7	6	6	6	6	6	6
Other	1	1	2	1	1	1	1	1	1	1

<sup>&</sup>lt;sup>1</sup> Sulphur dioxide, nitrogen oxides and ammonia.

Souce: Danmarks Miljøundersøgelser.

	Monitoring stations	Acceptable water quality	Unacceptable water quality	Beach areas where bathing is forbidden
1985	1 374	1 017	288	69
1990	1 370	1 251	70	49
1991	1 338	1 230	70	38
1992	1 307	1 225	54	28
1993	1 282	1 206	55	21
1994	1 288	1 234	33	21
1995	1 301	1 227	54	20
1996	1 299	1 223	57	19
1997	1 310	1 275	18	17
1998	1 307	1 244	45	18
1999	1 307	1 260	30	17
2000	1 295	1 250	28	17
2001	1 279	1 247	17	15
2002	1 275	1 222	38	15
2003	1 269	1 223	30	16

Source: Environmental Protection Agency.

# Beach areas where bathing is forbidden 2003



# Consumption of drinking water by counties

	1999	2000	2001
		m <sup>3</sup> in mio.	
All Denmark	436.3	428.7	417.2
Copenhagen Municipality	36.3	35.2	34.6
Frederiksberg Municipality	6.0	6.2	6.2
Copenhagen County	42.2	41.6	41.3
Frederiksborg County	27.3	24.0	24.0
Roskilde County	15.7	15.5	15.5
West Zealand County	29.6	28.3	25.5
Storstrøm County	19.4	19.9	18.5
Bornholm County	4.2	4.1	4.0
Funen County	37.5	37.7	36.1
South Jutland County	21.6	23.6	22.3
Ribe County	21.4	21.3	21.2
Vejle County	29.8	29.7	29.6
Ringkøbing County	28.7	27.8	27.9
Aarhus County	49.5	48.6	47.2
Viborg County	22.4	22.5	21.3
North Jutland County	45.0	42.9	42.1

Note. Water consumption of industry, agriculture and fish farming has not been included where recovery is based on separate individual borings.

# Consumption of drinking water by purpose

	1999	2000	2001
		m <sup>3</sup> in mio.	
All Denmark	436.3	428.7	417.2
Households	269.7	265.0	255.7
Industry and institutions	136.2	136.4	135.2
Losses, etc.	30.3	27.2	26.3

Note. Water consumption of industry, agriculture and fish farming has not been included where recovery is based on separate individual borings.

_	Wa	aterworks by content	of nitrates per litre	
	0.0 - 4.9 mg	5.0 - 24.9 mg	25.0 - 49.9 mg	50.0- mg
_		per ce	nt —	
All Denmark	80	14	5	1
Copenhagen County <sup>1</sup>	79	17	2	2
Frederiksborg County	81	16	2	1
Roskilde County	91	7	1	1
West Zealand County	85	10	4	1
Storstrøm County	83	15	1	1
Bornholm County	81	19	-	-
Funen County	90	9	1	-
South Jutland County	84	13	3	-
Ribe County	81	19	-	-
Vejle County	85	11	4	-
Ringkøbing County	86	7	5	2
Aarhus County	71	18	8	3
Viborg County	68	17	12	3
North Jutland County	47	24	22	7

<sup>&</sup>lt;sup>1</sup> Copenhagen County includes Copenhagen and Frederiksberg Municipalities.

# Amount of waste analysed by type of source and treatment 2001

	Recycling	Incineration	Landfilling Special treatment		Storage	Total
			thousand to			
Total	8 101	3 221	1 317	20	109	12 768
Households	940	1 882	250	6	40	3 118
Institutions, wholesale						
and retail trade	468	639	150	6	44	1 307
Manufacturing	1 688	320	583	8	18	2 617
Construction	3 051	74	260	0	7	3 392
Waste water treatment						
plants	752	306	64	0	0	1 122
Power plants	1 202	0	10	0	0	1 212

Note: The data originates from the information system on waste and recycling (ISAG) which is kept by the Danish Environmental Protection Agency.

Source: Environmental Protection Agency, sugar factories, the recycling industry, and power plants.

# Amount of waste analysed by type of waste and treatment 2001

	Recycling	Incine- ration	Landfilling	Special treatment	Storage	Total
			—— thousai	nd tons ———		
Total	8 101	3 221	1 317	20	109	12 768
Daily refuse	201	1 527	57	0	0	1 785
Bulky waste	123	336	180	1	40	680
Garden waste	576	3	12	0	0	591
Commercial and industrial waste	4 948	950	579	4	69	6 550
Hazardous and hospital waste	48	98	80	15	0	241
Processing residue	2 061	305	395	0	0	2 761
Packingwaste	143	0	0	0	0	143
Not known	1	2	14	0	0	17

Note: The data originates from the information system on waste and recycling (ISAG) which is kept by the Danish Environmental Protection Agency.

Source: Environmental Protection Agency, sugar factories, the recycling industry, and power plants.

	1996	1997	1998	1999	2000	2001
			tons			
Sales of pesticide products <sup>1</sup>						
Total sale	15 295	14 825	14 179	12 445	12 141	12 120
Repellents	64	59	56	84	35	23
Fungicides	1 626	2 105	1 911	1 999	1 757	1 625
Rodenticides	412	306	375	441	458	625
Herbicides	7 898	7 584	7 320	5 740	5 641	6 368
Insecticides	738	1 030	1 185	900	746	672
Soil disinfectants	48	3	0	4	2	10
Combined fungicides and insecticides	18	19	26	16	15	12
Algicides	0	0	0	1	4	5
Slimicides for use in paper pulp	50	50	39	60	61	54
Products against pests on farm animals	378	355	141	111	134	189
Products for the protection of woodwork	3 890	3 044	2 756	2 657	2 869	1 992
Plant growth regulators	173	271	369	432	420	546
Of which active ingredients <sup>2</sup>						
Active ingredients, total	5 271	4 582	4 326	3 605	3 551	3 687
Repellents	4	4	4	6	7	4
Fungicides	791	1 027	891	884	734	654
Rodenticides	3	4	4	3	6	2
Herbicides	3 127	2 923	2 781	2 059	2 136	2 364
Insecticides	90	97	102	86	77	87
Soil disinfectants	31	3	0	4	2	9
Combined fungicides and insecticides	3	3	3	2	4	6
Algicides	0	0	0	0	1	1
Slimicides for use in paper pulp	31	33	33	42	42	33
Products against pests on farm animals	2	2	2	1	1	2
Products for the protection of woodwork	1 097	346	297	261	295	189
Plant growth regulators	93	140	209	257	245	337

<sup>&</sup>lt;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

## **Extraction of raw materials**

	1990	1995	1999	2000	2001
			m <sup>3</sup> in thousands -		
Extraction of raw materials, total	33 976	34 211	47 858	40 738	38 255
Extraction from land area:	28 106	28 558	34 994	33 809	32 856
Stone, gravel, sand	22 534	21 721	28 414	27 587	27 056
Granite	810	662	180	199	166
Chalk, limestone	2 924	4 049	3 343	3 405	3 480
Clay	462	739	828	788	720
Plastic clay and bentonite	303	311	352	313	234
Quartz sand	186	191	279	479	488
Moler	195	186	197	227	231
Peat and sphagnum	399	259	253	247	287
Other raw materials	292	440	1 149	563	197
Extraction from sea area					
Sand, gravel, sand for land filling etc.	5 870	5 652	12 863	7 136	5 399

Source: Extraction from sea area is collected in the National Forest and Nature Agency.

# Expenditure and revenue by environmental domains. General government

	1997	1999	2001*
		– DKK mio.–––	
Current and capital expenditure, total	21 347	23 928	24 974
Air and climate	2 222	2 547	2 014
Waste water	5 431	5 654	5 844
Waste	6 961	7 644	7 875
Soil and ground water	439	542	568
Biodiversity and landscape	2 032	2 372	2 691
Research and development	1 428	1 554	1 490
Environmental assistance	1 271	1 715	2 438
Other <sup>2</sup>	1 562	1 899	2 053
Current and capital revenue, total <sup>1</sup>	12 430	14 734	15 208
Air and climate	18	20	26
Waste water	4 759	5 532	5 908
Waste	6 517	7 637	7 855
Soil and ground water	124	293	125
Biodiversity and landscape	203	264	362
Research and development	508	607	562
Other <sup>2</sup>	301	381	371

Note. Includes market services.

<sup>&</sup>lt;sup>1</sup> Excluding environmental taxes. <sup>2</sup> Including administration

	1997	1999	2001*
		—— DKK mio. ——	
Current and capital expenditure, total	21 347	23 928	24 974
Current expenditure, total	16 112	18 955	20 239
Compensation of employees	3 681	3 946	4 147
Consumption of fixed capital	635	820	744
Intermediate consumption	8 521	9 965	10 821
Current transfers, total	3 274	4 224	4 526
Capital expenditure, total	5 235	4 973	4 735
Fixed gross investments	3 948	3 657	3 403
Other capital expenditure	1 287	1 316	1 332
Current and capital revenue, total <sup>1</sup>	12 430	14 734	15 208
Capital revenue, total	12 122	14 343	14 887
Sales of goods and services	10 424	12 137	12 691
Gross residual income	1 087	1 339	1 366
Current transfers, total	611	867	830
Compulsory contributions	5	5	5
Other current transfers	606	862	824
Capital revenue, total	308	390	321

<sup>&</sup>lt;sup>1</sup> Excluding environmental taxes.

Table 27

# Expenditure and revenue by environmental domaines 2001. Subsectors

	Central government	Counties	Municipalities	General government sector, total <sup>1</sup>
		DKK mic	). —————	
Current and capital expenditure, total	8 398	1 391	15 185	24 974
Air and climate	2 014	0	0	2 014
Waste water	12	0	5 831	5 844
Waste	268	0	7 607	7 875
Soil and ground water	216	286	65	568
Biodiversity and landscape	1 360	987	345	2 691
Research and development	1 490	0	0	1 490
Environmental assistance	2 438	0	0	2 438
Other <sup>3</sup>	598	118	1 337	2 053
Current and capital revenue, total <sup>2</sup>	1 119	204	13 885	15 208
Air and climate	26	0	0	26
Waste water	0	0	5 908	5 908
Waste	182	0	7 673	7 855
Soil and ground water	97	24	4	125
Biodiversity and landscape	219	73	70	362
Research and development	562	0	0	562
Other <sup>3</sup>	34	107	230	371

<sup>&</sup>lt;sup>1</sup> Unconsolidated. <sup>2</sup> Excluding environmental taxes. <sup>3</sup> Including administration.

	Central government	Counties	Municipalities	General government, total <sup>1</sup>
		DKK mio		
Current and capital expenditure, total	8 398	1 391	15 185	24 974
Current expenditure, total	6 706	1 298	12 235	20 239
Compensation of employees	1 247	417	2 483	4 147
Consumption of fixed capital	98	46	600	744
Intermediate consumption	1 206	736	8 880	10 821
Current transfers, total	4 155	99	273	4 526
Capital expenditure, total	1 692	93	2 950	4 735
Fixed gross investments	370	95	2 938	3 403
Other capital expenditure	1 322	-2	12	1 332
Current and capital revenue, total <sup>2</sup>	1 119	204	13 885	15 208
Capital revenue, total	1 044	200	13 643	14 887
Sales of goods and services	415	54	12 222	12 691
Gross residual income	98	46	1 221	1 366
Current transfers, total	531	99	200	830
Compulsory contributions	0	0	5	5
Other current transfers	531	99	194	824
Capital revenue, total	75	4	242	321

<sup>&</sup>lt;sup>1</sup> Unconsolidated. <sup>2</sup> Excluding environmental taxes.

Table 29

# Convictions for offences against environmental legislation

	1995	1996	1997	1998	1999	2000	2001
			—— numbe	r of convictior	ns ———		
Total	411	406	693	583	590	647	727
Environmental Protection Act	230	170	253	208	209	177	228
Nature Conservation Act	45	60	58	54	91	95	78
Washington Convention	28	16	9	14	16	39	60
Marine Environment Act	4	2	1	-	2	1	8
Forestry Act	-	-	1	2	1	-	-
Act on urban and rural areas	30	17	43	43	76	93	151
Act on holiday dwellings and camping	4	13	108	22	5	6	3
Act on chemical compounds and products	-	2	12	7	15	6	8
Other acts relating to the environment	70	126	208	233	175	230	191

Table 30

#### Denmark's fauna and flora

	Total number of known	Total number of '	'listed species'	Species extinct in Denmark <sup>1</sup>	Species req	uiring special prot	ection
1997 - 2002	species				Directly endangered <sup>2</sup>	Vulnerable species <sup>3</sup>	Rare species <sup>4</sup>
		number	per cent		number of	species —	
Total	10 598	3 142	30	343	611	997	1 191
Flora							
Fungi / Lichens	3 950	1 452	37	112	268	453	619
Fungi	3 000	878	29	31	157	248	442
Lichens	950	574	60	81	111	205	177
Vascular plants	1 050	220	21	23	36	66	95
Fauna							
Insects	5 289	1 359	26	190	285	450	434
Ephemeroptera	42	20	48	5	8	4	3
Plecoptera	25	10	40	2	2	3	3
Odonata	50	21	42	4	4	7	6
Pentatomoidea	56	15	27	0	2	7	6
Trichoptera	168	54	32	10	3	12	29
Beetles	3 674	964	26	144	233	328	259
Butterflies	73	36	49	9	8	18	1
Moths	900	141	16	13	12	45	71
Zygaenidae	8	5	63	1	1	3	0
Syrphidae	269	86	32	2	10	21	53
Simuliidae	24	7	29	0	2	2	3
Vertebrates	309	111	36	18	22	28	43
Freshwater fish	38	15	39	2	5	1	7
Amphibians	14	5	36	0	1	3	1
Reptiles	7	2	29	2	0	0	0
Birds	200	74	37	14	15	14	31
Mammals	50	15	30	0	1	10	4

Note. Definitions of categories are identical to those which are used in the so-called 'red lists'. These are national lists of the status of endangered animal and plant species.

Source: National Forest and Nature Agency.

<sup>&</sup>lt;sup>1</sup> Species which are regarded as extinct in Denmark after 1850. <sup>2</sup> Species which are regarded as in danger of extinction in Denmark in the near future if the negative factors which are currently affecting them continue. <sup>3</sup> Species which are expected to be directly endangered in Denmark if the negative factors which are currently affecting them continue. <sup>4</sup> Species which are so few in number that they are particularly sensitive to random man-made or natural fluctuations and negligence.

Table 31

# Breeding pairs of the 20 most common birds in Denmark 2001

No.	Species	Number of breeding pairs	Trend
1	Blackbird	2 282 000	Rising
2	Chaffinch	1 700 000	Rising
3	Skylark	1 360 000	Falling
4	House sparrow	944 000	Falling
5	Great tit	745 000	Fluctuating
6	Starling	660 000	Falling
7	Willow warbler	603 000	Stable
8	Yellowhammer	567 000	Stable
9	European greenfinch	489 000	Rising
10	Tree sparrow	482 000	Rising
11	Wren	404 000	Fluctuating
12	Whitethroat	358 000	Falling
13	Pheasant	300 000	Rising
14	Wood pigeon	291 000	Rising
15	Robin	285 000	Fluctuating
16	Blackcap	284 000	Rising
17	Common linnet	283 000	Stable
18	Swallow	275 000	Fluctuating
19	Song thrush	259 000	Stable
20	Magpie	249 000	Rising

Source: DOF-BirdLife Denmark - The Danish Ornithological Society: Jacobsen, E. M.

# Breeding pairs of the 20 most rare birds in Denmark 2000

No.	Species	Number of breeding pairs	Developmental trend
1	Red-crested Pochard	1	Falling
2	Golden Eagle	1	Rising
3	Little Gull	1	Fluctuating
4	Gull-billed Tern	1-2	Falling
5	Savi's Warbler	1-7	Fluctuating
6	Great Reed Warbler	1-7	Falling
7	Northen Fulmar	2	Rising
8	Mediterranean Gull	2	Rising
9	European Golden Plover	2-5	Falling
10	Osprey .	2-8	Fluctuating
11	White Stork	3	Falling
12	White-throated dipper	4-5	Fluctuating
13	European Serin	4-5	Falling
14	Crested Lark	4-12	Falling
15	Eurasian Hobby	5	Fluctuating
16	Short-eared Owl	5	Falling
17	Eurasian Spoonbill	6	Rising
18	White-tailed Eagle	6	Rising
19	European Bee-eater	4-6	Rising
20	Tawny Pipit	6-7	Falling

Note. Protection of wild birds are regulated by the Act on hunting and game management and the Nature Protection Act. Source: DOF-BirdLife Denmark - The Danish Ornithological Society: 'Threatened Breeding pairs', 2000.

## Animals killed, mammals

	1990/91	1995/96	1998/99	1999/00	2000/01
	-		thousands —		
Total	302.5	326.5	279.5	273,5	273,7
Red deer	1.9	2.9	3.3	3.4	3.9
Fallow deer	3.5	3.7	3.8	4.2	3.5
Sica	0.4	0.4	0.5	0.4	0.5
Roe deer	73.0	105.0	101.0	103.8	109.9
Hare	148.0	162.0	106.0	99.2	95.8
Rabbits	17.0	6.0	7.5	5.0	5.0
Squirrel	0.3	1	1	1	1
Foxes	50.0	38.0	45.0	43.9	42.3
Badger	1.0	1	1	1	1
Polacat	0.9	0.7	1.1	1.1	1.4
Mink	2.8	4.6	6.7	8.0	7.2
Stone marten	3.7	3.2	4.6	4.5	4.2

Note. Number of people holding hunting licences in the 2000/2001 are 166,850.

Source: National Environmental Research Institute, Dept. of Flora and Fauna Ecology.

<sup>&</sup>lt;sup>1</sup> This species is totally protected, but individual animals may be killed in accordance with the Statutory Order on game injuries.

# Animals killed, birds

	1990/91	1995/96	1998/99	1999/00	2000/01
-			thousands —		
Total	2 866	2 585	2 246	2 458	2 340
Grey partridge	85	94	57	53	48
Pheasant	900	812	742	764	736
Heron	1	1	2	2	2
Woodcock	27	27	25	24	45
Snipe	32	24	18	22	27
Mallard	696	768	670	731	638
Other surface-feeding ducks	152	155	89	99	129
Eider duck	135	114	72	95	86
Other diving duck	58	45	34	33	39
Geese	14	16	18	18	23
Common coot	24	18	14	20	20
Grey partridge	99	47	38	36	34
Wood pigeon	351	262	239	300	277
Eurasian collared dove	12	10	8	9	8
Rook	92	81	92	102	102
Crow	104	69	75	99	80
Black-billed magpie	60	38	43	45	40
Cormorant		3	4	4	3
Starling		1	7	2	4

Note. Number of people holding hunting licences in the 2000/2001 are 166,850.

Source: National Environmental Research Institute, Dept. of Flora and Fauna ecology.

# Energy balance sheet for Denmark 2001\*

	Crude oil and semi- manufac- tured oil	Coal, coke, etc.	Oil products	Natural gas	Other gas	Renewable energy resources	Electricity	District heating
	th	ousand tons		thousands Nm <sup>3</sup>	thousand tons		GWh	ŢΙ
Production Imports	16 896 3 040	- 7 030	8 860 5 902	8 153 -	525 7		36 006 8 199	129 134 -
Stock	-181	-165	1 522	-9	-21		-	-
Waste and cable losses	83	69	99	3	5	448	2 130	25 857
Exports	11 678	100	4 872	3 208	140	24	8 774	-
Total domestic consumption	8 358	7 025	8 269	4 951	408	83 289	33 301	103 276
Households	-	3	2 575	724	56	12 565	10 300	65 054
Agriculture, fishing and quarrying	_	69	844	771	7	2 077	2 167	1 889
Agriculture, horticulture, and forestry	-	44	590	120	6		2 009	1 885
Fishing, etc.	-		212	-	0		61	-
Quarrying and mining	-	25	42	651	0		97	5
Manufacturing	8 358	394	743	1 011	327	6 391	9 682	7 274
Mfr. of food, beverages and tobacco	0 330	125	207	366	5		2 275	1 344
Mfr. of textile, wearing apparel and leather	_	-	9	34	1	3	203	248
Mfr. of wood, paper, printing and publishing	_	_	34	96	2		1 042	1 826
Mfr. of refined petroleum products, chemicals and plastic	8 358	20	84	175	298		2 127	1 693
Mfr. of non-metallic mineral, etc.	-	248	288	146	8	499	841	123
Mfr. of iron and basis metals	-	1	105	176	12	136	2 697	1 794
Mfr. of furniture and manufacturing n.e.s.	-	-	16	18	1	1 267	497	247
Energy and water supply	-	6 559	1 306	2 081	0	62 255	592	18
Construction	-	-	342	5	5	-	267	-
Wholesale and retail trade, hotels and restaurants, etc.	-	-	322	127	5	-	3 556	10 257
Sale and repair of motor vehicles, gas stations, etc.	-	-	70	15	1	-	405	1 204
Wholesale and commission sale, except of motor vehicles	-	-	179	54	2		1 243	4 340
Retail trade and repair work, except motor vehicles	-	-	59	31	0		1 242	2 537
Hotels and restaurants, etc.	-	-	15	27	1	-	665	2 176
Transport, postal services and telecommu- nication	-	-	1 810	15	3		1 421	1 185
Transport	-	-	1 781	7	3		1 287	551
Post and telecommunication	-	-	29	8	0	-	134	634
Financial intermediation, etc. business activities	-	-	106	51	1	-	1 169	4 147
Financial intermediation and insurance, etc.	-	-	8	11	-	-	279	908
Letting and sale of real estate	-	-	29	8	0		163	646
Business activities, etc.	-	-	70	32	0	-	727	2 594
Public and personal services	-	-	221	166	5	-	4 146	13 451
Public administration and defence, etc.	-	-	81	22	2	-	515	1 749
Education	-	-	33	38	1	-	949	3 083
Human health activities	-	-	16	24	0		599	1 946
Social institutions, etc.	-	-	30	35	0		869	2 823
Refuse disposal, organisations, entertainment, etc.	-	-	62	47	2	-	1 215	3 850

	1995	2000	2001
Energy consumption, gross		— thousand tons —	
Hard coal etc.	10 987	6 571	6 984
Coke and furnace coke	51	41	39
Brown coal etc.	9	2	2
Waste	2 314	2 905	3 082
Fuel wood, etc.	1 255	1 338	1 479
Straw	843	843	945
Kerosene	14	4	7
Jet fuel	657	826	823
Motor gasoline	1 887	1 965	1 894
Other petrol and oil products	750	1 251	1 095
Gas/Diesel oil	3 897	3 472	3 628
Fuel oil	998	542	562
Petroleum-coke	176	224	257
Liquid gas (LPG)	87	76	70
Refinery gas	370	294	297
-		mio. Nm <sup>3</sup>	
Natural gas <sup>3</sup>	3 009	4 205	4 366
-		— thousand GJ —	
Biogas	1 277	1 433	1 480
Wind energy and water power	4 347	15 375	15 581
Electricity supply		mio. KWh	
Electricity sold, public works	31 470	32 835	33 301
Dwellings	9 549	9 592	9 640
Agriculture, etc.	2 544	2 568	2 555
Manufacturing	9 451	9 831	9 994
Other industries, public administration, etc.	9 892	9 973	10 221
Crude oil and natural gas	thousand tons		
Crude oil, Danish production	9 263	17 780	16 887
		mio. Nm <sup>3</sup>	
Natural gas, Danish production	5 165	7 883	8 153

 $<sup>^1</sup>$  1996 corrected for cross-border trade.  $^2$  Including waste oil. From 1995 incl. orimulsion.  $^3$  Excl. consumption on North-Sea platforms.

Source: Association of Danish Energy Companies.

	1990	2000	2001		
Total production	52 631	88 475	94 002		
Solar heat	100	331	341		
Wind power	2 197	15 271	15 476		
Water power	101	103	104		
Straw	12 481	12 220	13 698		
Wood chips	1 724	2 744	3 181		
Wood	8 757	11 655	12 586		
Wood pills	1 575	2 257	2 540		
Wood waste	6 191	6 740	7 189		
Biogas	752	2 912	3 047		
Waste combustion	15 499	30 474	31 843		
Fish oil	744	49	191		
Geothermal heat <sup>1</sup>	2 510	3 719	3 806		

<sup>&</sup>lt;sup>1</sup> Heat pumps and geothermy.

Source: Danish Energy Authority.

		Solid fuel	Liquid fuel	Gas	Electricity	District heating	
•			thousand GJ				
	Manufacturing, total <sup>1,2</sup>	16 736	22 185	56 081	31 043	5 910	
14009	Extraction of gravel, clay, stone and salt,						
	etc.	655	925	2 580	272	1	
15009	Mfr. of food, beverages and tobacco <sup>2</sup>	3 494	6 711	14 204	7 189	1 267	
151000	Mfr. of meat and meat products	-	1 043	2 105	1 975	126	
155000	Mfr. of dairy products	- 2.404	587	3 646	1 323	6	
158909 159000	Mfr. of other food products Mfr. of beverages	3 494	4 782 282	5 796 2 550	3 152 661	791 334	
160000	Mfr. of tobacco and related products	-	18	106	78	10	
17009	Mfr. of textiles, clothing and leather	2	85	1 160	599	168	
170000	Mfr. of textiles	1	75	1 076	525	141	
180000	Mfr. of clothing	1	3	41	44	26	
190000	Mfr. of leather and footwear	-	7	43	31	1	
20000	Mfr. of wood and wood products	3 572	397	195	831	12	
21009	Mfr. of paper; printing and publishing	38	255	3 359	2 066	1 390	
210000	Mfr. of pulp, paper and paper products	38	220	3 059	1 255	1 136	
221200 221309	Publishing of newspapers Publishing activities excl. newspapers	-	1 4	14 83	142 133	86 67	
222009	Printing etc.	-	29	204	536	102	
23000	Mfr. of refined petroleum, etc.	-	1 388	15 441	556	252	
24000	Mfr. of chemicals	533	1 324	5 285	4 605	1 184	
241009	Mfr. of chemical raw materials	4	480	3 358	2 300	525	
243009	Mfr. of paints, soap, cosmetics, etc.	529	69	1 041	989	91	
244000	Mfr. of pharmaceuticals	-	775	886	1 316	568	
25000	Rubber and plastic products	8	167	1 285	2 058	96	
26000	Mfr. of non-metallic mineral, etc.	7 345	9 187	5 882	2 810	79	
261009 263009	Mfr. of glass and ceramic goods, etc. Mfr. of bricks and concrete, etc.	- 7 345	25 9 161	1 771 4 111	671 2 139	17 61	
27009 27009					4 522		
27009	Mfr. and processing of basic metal Mfr. of basic metal	<b>56</b> 24	<b>625</b> 147	<b>3 437</b> 2 151	2 861	<b>312</b> 112	
281009	Mfr. of construction materials of metal	21	351	557	829	131	
286009	Mfr. of hand tools, packaging of metal, etc.	10	126	729	831	70	
29000	Mfr. of machinery and equipment	1	643	1 567	2 157	533	
291000	Mfr. of marine engines, compressors, etc.	-	130	721	1 100	241	
292000	Mfr. of other general purpose machinery	-	250	285	467	116	
293000 294009	Mfr. of agricultural and forestry machinery Mfr. of machinery for industries, etc.	-	122 118	253 240	139 331	18 88	
297000	Mfr. of domestic appliances	-	24	67	121	69	
30009	Mfr. of electrical and optical equipment	42	151	594	1 277	358	
300009	Mfr. of computers, electric motors, etc.	1	95	259	529	190	
320000	Mfr. of radios and communication						
220000	equipment, etc.	40	14	218	348	40	
330000	Mfr. of medical and optical instruments, etc.	1	41	118	400	129	
35009 351000	Mfr. of transport equipment	5	143	618	681	121	
351000 352009	Building and repair of ships, etc.  Mfr. of transport equipment, excl. ships	3 3	61 83	321 296	325 356	46 75	
36000	Mfr. of furniture and manufacturing	,		233	555	, 3	
20000	n.e.s.	985	185	476	1 420	138	
361000	Mfr. of furniture	981	170	351	1 101	68	
365009	Mfr. of toys, gold and silver articles, etc.	4	15	124	319	70	

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

<sup>&</sup>lt;sup>1</sup> Incl. extraction of gravel, clay, stone and salt, etc. <sup>2</sup> Excl. bakeries.