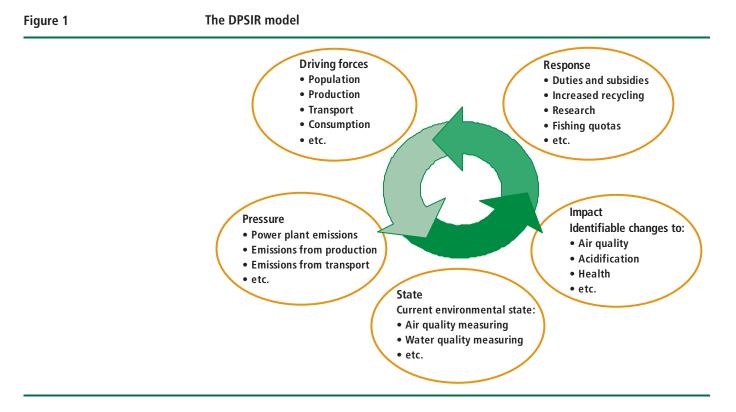
# **Environment and energy**

#### 1. The DPSIR model

The environmental has been based on a so-called DPSIR model, which is a theoretical and internationally recognised model. This model comprises five elements: driving forces, Pressure, State, Impact, and Response.



#### **Driving forces**

This model is based on the fact that the vast array of human activity in our society - the driving forces - may occasion environmental problems. For example, these driving forces may be the amount of energy produced. Driving forces are economic activities on which we all depend, but they do not provide any information on the state of the environment in themselves.

#### Pressure

Production in Denmark causes pressure on the environment in the form of emissions and discharges of large amounts of waste associated with this production. For example, electricity generation at a power station may involve the burning of coal at power stations, occasioning the release of carbon dioxide and other substances such as sulphur and nitrogen, and the task then is to identify and calculate such emissions. Carbon dioxide is a so-called greenhouse gas which is not dangerous in itself. However, as carbon dioxide quantities increase, this gas contributes to a gradual process of global heating, which may cause melting of the polar ice caps and changes in rainfall patterns.

#### State

Thus, human pressure on its surroundings and environment causes this environment to slowly change its nature. As is the case with other types of status supervision, regular measurement of the state of the environment is carried out. In the example quoted above, carbon-dioxide emissions contribute to a status report which shows greater carbon-dioxide concentrations in the atmosphere.

#### Impact

A given state will typically have an impact on the environment. In the power-station example, the impact of increased concentrations of carbon-dioxide gas in the atmosphere is an increase in global heating. Also, atmospheric concentrations of sulphur may cause greater acidification of lakes due to sulphur oxides. Such environmental impacts may not necessarily be immediately identifiable, but will be observed over a period of years in the form of changes to the state of the environment.

#### Response

If the state of the environment is not acceptable, this constitutes an environmental problem. Such a problem will typically entail a response from the authorities. Responses may either be political (examples include bans on environmentally harm substances or the introduction of "green taxes and duties") or behavioural. It is also possible to promote desirable behaviour by providing subsidies in support of alternative production methods and processes which are less harmful to the environment.

A response might also take the form of international agreements. As far as carbon-dioxide emissions are concerned, the Danish response has entailed the introduction of duties and international agreements. Also, the population may react by changing their behaviour as regards particular issues. Such behavioural changes may manifest themselves as deliberate product choices based on a positive or negative view of the relevant production methods or product contents. The phrase used to describe individuals who display such behaviour is "political consumers".

The five elements which comprise the DPSIR model are very different. Some of the elements are calculated as physical quantities, and some in monetary values – i.e. quantitative measures. Other elements within the model concern the agreements entered into - qualitative measures. As it is not possible to measure the five elements of the model by the same yardstick, the ways in which these five elements are addressed in the model will also differ.

Individual issues and themes from the model will be addressed below.

#### 2. Air pollution

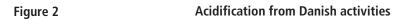
#### Greenhouse gases contribute to air pollution

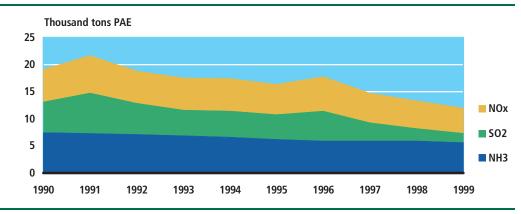
The air and the environment are subjected to significant pressure from the burning of fossil fuels, which entails emissions of carbon dioxide and other substances such as sulphur and nitrogen. As was mentioned above, carbon dioxide is a so-called greenhouse gas which is not dangerous in itself, but which, in greater quantities, will contribute to a gradual increase in average global temperatures - global heating. Sulphur and nitrogen contribute to greater air acidity.

The most important greenhouse gases are carbon dioxide, methane and nitrogen oxides and a number of industrial gases such as chlorofluorocarbons (CFCs). Carbon dioxide accounts for 64 per cent of the global heating created by humans, while methane accounts for 20 per cent, nitrogen oxides for 6 per cent, and CFCs and related substances account for 10 per cent. Denmark's emissions of carbon dioxide vary over the years, a fact which is partly due to the net export of electricity. In the years where Denmark has a large export of electricity, carbon-dioxide emissions increase as power generation increases. Efforts are being made to reduce carbon-dioxide emissions by replacing fossil fuels, such as coal, by natural gas and renewable energy. Agriculture is the main source of methane and nitrogen-oxide emissions and discharges.

#### 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, nitrogen oxides and sulphur dioxides. 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.





Source: The Danish Environmental Protection Agency

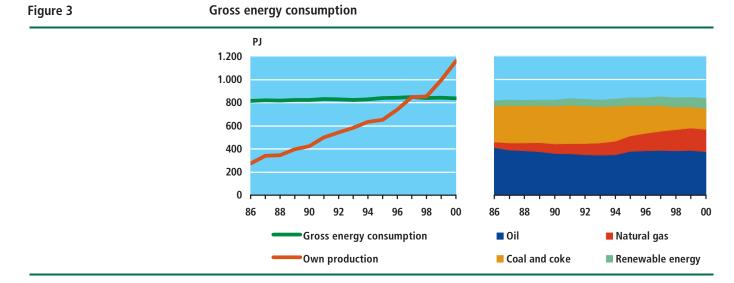
The acidifying substances come from agriculture, from energy conversion within the energy sector, and from the transport sector. In 1990, Agriculture was the largest contributor, accounting for 39 per cent of the total Danish emissions. Energy conversion accounted for 33 per cent and the transport sector for 20 per cent. These percentages have changed: in 1999, agriculture accounted for the greater share of emissions, 46 per cent, while the transport sector accounted for 26 per cent and energy conversion accounted for 20 per cent.

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.

#### 3. Energy consumption

#### Energy consumption

Emissions from energy consumption are a significant cause of several of the environmental problems facing Denmark and the rest of the world. Thus, the environmental state in Denmark can be elucidated by means such as mapping the current state and development of energy consumption in Denmark.



Since the early 1980s, Denmark has become steadily less dependent on imported oil and coal - thanks to the increased extraction of crude oil and natural gas from the North Sea. Since 1997, Denmark has been self-sufficient as regards energy. Renewable energy has played 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.

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. Gross energy consumption has shown an increase in the consumption of natural gas and renewable energy and a corresponding decrease in coal consumption. Since 1997, Denmark has been selfsufficient as regards energy.

#### 4. Agriculture

Figur 4 Nitrogen in manure and fertilisers

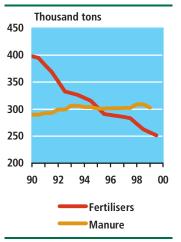


Figure 5

#### Use of fertilisers

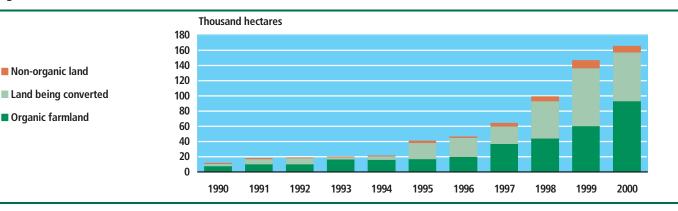
Agricultural production of animal and vegetable products involves the use of manure and fertilisers. This causes large quantities of nitrogen and small quantities of phosphorus to be discharged into the soil. Some nitrogen and phosphorus is not received by plants and as a consequence is leached from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

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 55 per cent from 1999 to 2000 and now covers 93,354 hectares. Thus, organic farming accounted for 3.5 per cent of all Danish farmland in 2000.

#### Total areal extent of organic farms

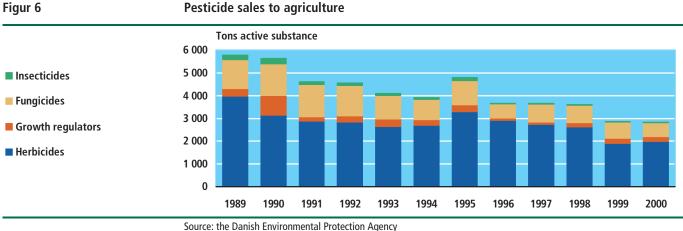


Source: the Plant Directorate. The areal extent includes forests.

#### Pesticides

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

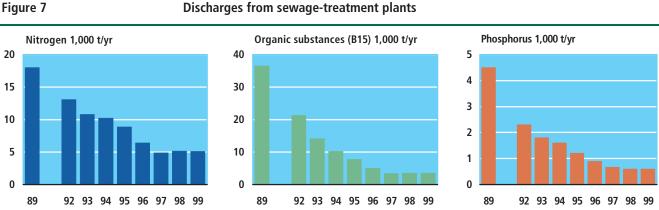


Pesticides are divided into products which protect crops against weeds, *herbicides*, against fungus infection, fungicides, and against insects, insecticides. There are also products which shorten crops, growth regulators.

#### 5. Waste water

#### Emissions of nitrogen and organic substances

The majority of all buildings in Denmark are connected to sewers, and most waste water passes through municipal sewage-treatment plants before being discharged into lakes, watercourses, or the ocean. Discharges of organic substances and phosphorus from sewage-treatment plants in 1999 corresponded to 1998 levels, whereas the discharges of nitrogen have fallen slightly from 5.2 thousand tons in 1998 to 5.1 thousand tons in 1999.



#### Discharges from sewage-treatment plants

Source: the Danish Environmental Protection Agency

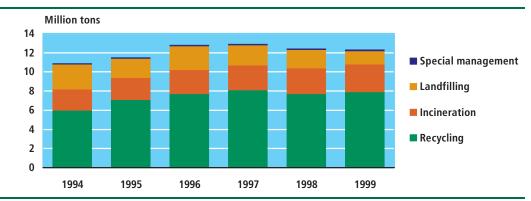
When rainfall goes up, water quantities in sewage-treatment plants also rise. This entails a reduction in the effectiveness of the measures to remove nitrogen and organic substances, whereas the removal of phosphorus is not affected.

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 from roofs, roads, etc. A few enterprises have their own discharge points because of their distant location.

#### 6. Waste

#### Household waste increases

12.3 million tons of waste was produced in Denmark in 1999. This constituted a reduction below 0.25 per cent compared to 1998. The manufacturing industries and the power plants produced, respectively 5 and 12 per cent less waste in 1999, whereas 6 per cent more waste was collected from households and sewage-treatment plants in 1999. Compared to 1998, the amount of waste collected from the construction industry and institutions, wholesale and retail trade and clerical occupations remain unchanged. In 1999, the Danes produced 3.0 million tons of household waste. This corresponds to 556 kg per citizen. In 1998, 500 kg of waste per citizen was produced.



#### Figure 8 Total waste quantities in Denmark

Note: Improved data input is one of the causes of the significant increase up until 1996. Source: The Danish Environmental Protection Agency

The statistics are compiled from data submitted by enterprises engaged in waste management and which have knowledge of the final waste disposal in the form of recycling, incineration, landfilling or special management. However, the enterprises engaged in waste management have no knowledge of the amount of waste produced by each individual enterprise or household. Following specific types of waste from the unit of waste generation to the final disposal/landfilling is therefore impossible.

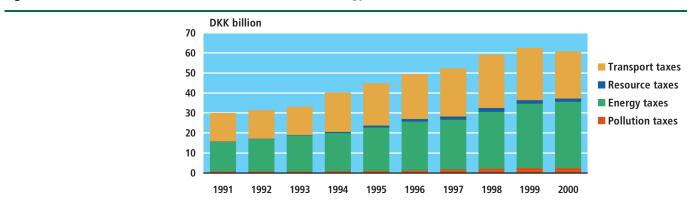
51 per cent of the total waste quantities were collected from the industries. Sludge and cinders from sewage-treatment plants and power plants accounted for 23 per cent, daily refuse collection and bulky waste for 20 per cent, garden waste for 5 per cent and hazardous waste for 1 per cent.

#### 7. Public-sector response

#### **Environmental taxes**

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

In 2000, the total revenue generated from these taxes was DKK 60.6 billion, corresponding to 9.7 per cent of total revenues from taxes and duties. In 2000, revenues from energy taxes accounted for 54.5 per cent all revenue from environmental taxes. In 2000, the revenues generated by energy taxes came to DKK 33.0 billion.



#### Figure 9

Environmental taxes and energy taxes

#### Area, population and coastline 2001

|                            | Land and inland<br>water area<br>km <sup>2</sup> | Population<br>1. januar | Density of<br>population<br>per km <sup>2</sup> | Jutland and islan<br>(with official |                               | Inland<br>water area<br>1959<br>km <sup>2</sup> | Coastline<br>1959<br>km |
|----------------------------|--|-------------------------|---|-------------------------------------|-------------------------------|---|-------------------------|
|                            |  |                         |   | Number                              | Area km <sup>2</sup>          |   |                         |
| Denmark                    | 43 098,09  | 5 349 212               | 124,1   | <b>406</b> <sup>1</sup>             | <b>43 098,09</b> <sup>2</sup> | 700   | 7 314                   |
| Regions                    |  |                         |   |                                     |                               |   |                         |
| Zealand                    | 7 450,46 <sup>1</sup>                            | 2 248 741               | 301,8   | 98 <sup>1</sup>                     | 7 450,46 <sup>3</sup>         | 184   | 1 735                   |
| Bornholm                   | 1 795,34   | 114 492                 | 63,8  | 45                                  | 1 795,344                     | 24  | 587                     |
| Lolland-Falster            | 588,53   | 44 126                  | 75,0  | 9                                   | 588,53                        | 3   | 141                     |
| Funen                      | 3 485,84   | 472 064                 | 135,4   | 100                                 | 3 485,846                     | 26  | 1 130                   |
| The Islands, total         | 13 320,17 <sup>1</sup>                           | 2 879 423               | 216,2   | 252 <sup>1</sup>                    | 13 320,17                     | 237   | 3 593                   |
| Jutland                    | 29 777,92  | 2 469 789               | 82,9  | 154                                 | 29 777,89 <sup>2,6</sup>      | 463   | 3 721                   |
| Counties                   |  |                         |   |                                     |                               |   |                         |
| Copenhagen Municipality    | 88,25  | 499 148                 | 5 656,1   | 2                                   | 0,237                         | 3   | 92                      |
| Frederiksberg Municipality | 8,77   | 91 076                  | 10 384,9  | •                                   | •                             | 0   | •                       |
| Copenhagen County          | 528,15   | 615 115                 | 1 164,7   | 3 <sup>1</sup>                      | 111,33 <sup>7</sup>           | 15  | 121                     |
| Frederiksborg County       | 1 347,42   | 368 116                 | 273,2   | 14                                  | 2,40                          | 80  | 248                     |
| Roskilde County            | 891,42   | 233 212                 | 261,6   | 18                                  | 0,27                          | 7   | 154                     |
| West Zealand County        | 2 983,77   | 296 875                 | 99,5  | 28                                  | 49,00                         | 66  | 608                     |
| Storstrøm County           | 3 398,02   | 259 691                 | 76,4  | 77                                  | 2 049,09                      | 36  | 1 099                   |
| Bornholm County            | 588,53   | 44 126                  | 75,0  | 9                                   | 588,53                        | 3   | 141                     |
| Funen County               | 3 485,84   | 472 064                 | 135,4   | 100                                 | 3 485,84                      | 27  | 1 130                   |
| North Schleswig County     | 3 939,12   | 253 249                 | 64,3  | 14                                  | 450,07                        | 119   | 567 <sup>8</sup>        |
| Ribe County                | 3 131,61   | 224 446                 | 71,7  | 4                                   | 64,83                         | 23  | 207                     |
| Vejle County               | 2 996,64   | 349 186                 | 116,5   | 10                                  | 17,04                         | 26  | 264                     |
| Ringkøbing County          | 4 853,94   | 273 517                 | 56,3  | 23                                  | 16,84                         | 80  | 598                     |
| Århus County               | 4 560,73   | 640 637                 | 140,5   | 40                                  | 148,73                        | 77  | 635                     |
| Viborg County              | 4 122,51   | 233 921                 | 56,7  | 15                                  | 392,49                        | 90  | 646                     |
| North Jutland County       | 6 173,37   | 494 833                 | 80,2  | 46                                  | 127,96                        | 48  | 804                     |
| Faroe Islands              | 1 398,85   | 45 751                  | 32,7  | <b>17</b> <sup>9</sup>              | 1 398,85                      |   | 1 117 <sup>10</sup>     |
| Greenland                  | 410 449,00 <sup>11</sup>                         | 56 245                  | 0,1   |                                     |                               |   |                         |

Note 1. The most southern point in Denmark is Gedserodde on Falster, 1158'15" east, 5433'35" north, the most northerly point is near Skagen 1036'11" east, 5745'07" north, the most westerly point is Blåvandshuk 0804'22" east, 5533'36" north, and the most easterly point is Christi ansø (Østerskær), 1591'55" east, 55919'17" north. E *uropean 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 km<sup>2</sup>) 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 km<sup>2</sup>. 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.

<sup>1</sup> Peberholm is a new island with 123 ha without inhabitants. <sup>2</sup> Including the Jutland peninsular of 23,874.24 km<sup>2</sup>. <sup>3</sup> Including the island of Zealand with 7,031.30 km<sup>2</sup>. <sup>3</sup> Including the islands of Lolland, 1,242.86 km<sup>2</sup> and Falster 513.76 km<sup>2</sup>. <sup>5</sup> Of this, the island of Funen accounts for 2,984.55 km<sup>2</sup>. <sup>6</sup> Including Vendsyssel-Thy, 4,685.72 km<sup>2</sup>. <sup>7</sup> All of the island of Amager is included under Copenhagen Municipality with 96.29 km<sup>2</sup>. <sup>8</sup> The border with Germany was measured as 67.7 km. In length. <sup>9</sup> Inhabited islands. <sup>10</sup> Measured in 1955. <sup>11</sup> Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km<sup>2</sup>, of which 85 pct. is covered by inland ice.

Source: National Survey and Cadastra.

#### Division of administration, Denmark 2001

|                            | Municipality   | lunicipality Parish Customs and tax region |                                    | Assessment<br>districts | Valuation<br>districts – | Constit                              | Judicial<br>district |                 |
|----------------------------|----------------|--|------------------------------------|-------------------------|--------------------------|--------------------------------------|----------------------|-----------------|
|                            |                |  | -                                  |                         |                          | ounties and<br>large<br>nstituencies | Constituency         |                 |
| Total                      | 275            | 2 125                                      | 29                                 | 27                      | 224                      | 17                                   | 103                  | 82              |
| The Islands                | 134            | 893  | 16                                 | 14                      | 121                      | 10                                   | 58                   | 40              |
| Copenhagen Municipality    | 1              | 71   | 2                                  | 1                       | 13                       | 3 (                                  | . 16                 | 1               |
| Frederiksberg Municipality | 1              | 10   |                                    | 1                       | 15                       |                                      | 3                    | 1               |
| Copenhagen County          | 18             | 70   | 4 <sup>2,3</sup><br>2 <sup>2</sup> | 2                       | 22                       | 1                                    | 9                    | 10              |
| Frederiksborg County       | 19             | 78   | 22                                 | 2                       | 17                       | 1                                    | 4                    | 5               |
| Roskilde County            | 11             | 68   | 1 <sup>3</sup><br>2 <sup>5</sup>   | 1                       | 10                       | 1                                    | 3                    | 2               |
| West Zealand County        | 23             | 167  | 25                                 | 2                       | 17                       | 1                                    | 6                    | 7               |
| Storstrøm County           | 24             | 182  | 2 <sup>5</sup>                     | 2                       | 16                       | 1                                    | 6                    | 6               |
| Bornholm County            | 5 <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 <sup>8,9</sup>                   | 2                       | 13                       | 1                                    | 6                    | 5               |
| Ringkøbing County          | 18             | 143  | 2 <sup>9</sup>                     | 1                       | 12                       | 1                                    | 4                    | 6               |
| Århus County               | 26             | 285  | 3 <sup>8,10</sup>                  | 3                       | 22                       | 1                                    | 10                   | 6               |
| Viborg County              | 17             | 225  | 2 <sup>11,12</sup>                 | 2                       | 14                       | 1                                    | 5                    | 5 <sup>13</sup> |
| North Jutland County       | 27             | 240  | 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 1,353 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. 5 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 Municipality and 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.

#### Area and population. Regions and inhabited islands

| Muni                  | -                             | Area          | Popul             | ation             | Muni                  |                       | Area          | Popul             | ation             |
|-----------------------|-------------------------------|---------------|-------------------|-------------------|-----------------------|-----------------------|---------------|-------------------|-------------------|
| cipa-<br>lity<br>code |                               | in ha<br>2001 | 1. januar<br>2000 | 1. januar<br>2001 | cipa-<br>lity<br>code |                       | in ha<br>2001 | 1. januar<br>2000 | 1. januar<br>2001 |
|                       | Whole country                 | 4 309 809     | 5 330 020         | 5 349 212         |                       | Funen and its islands | 348 584       | 471 974           | 472 064           |
|                       | Zealand and                   |               |                   |                   |                       | Funen                 | 298 456       | 439 608           | 439 993           |
|                       | its islands                   | 745 046       | 2 235 839         | 2 248 741         | 431                   | Avernakø              | 586           | 115               | 117               |
|                       | Zealand                       | 703 130       | 2 067 606         | 2 079 128         | 443                   | Birkholm              | 92            | 9                 | 9                 |
| 331                   | Agersø                        | 684           | 247               | 255               | 431                   | Bjørnø                | 150           | 40                | 38                |
| -                     | Amager                        | 9 629         | 154 207           | 155 544           | 421                   | Bågø                  | 623           | 32                | 30                |
| 365                   | Bogø                          | 1 307         | 1 048             | 1 053             | 479                   | Drejø                 | 426           | 81                | 78                |
| 373                   | Enø                           | 340           | 283               | 270               | 445                   | Fænø                  | 394           | 3                 | 2                 |
| 229                   | Eskilsø                       | 139           | 1                 | 4                 | 479                   | Hjortø                | 90            | 17                | 14                |
| 365                   | Farø                          | 93            | 5                 | 4                 |                       | Langeland             | 28 384        | 14 412            | 14 342            |
| 373                   | Gavnø                         | 575           | 26                | 24                | 431                   | Lyø                   | 605           | 132               | 141               |
| 331                   | Glænø                         | 559           | 60                | 60                | 487                   | Siø                   | 131           | 26                | 22                |
| 221                   | Hesselø                       | 71            | 2                 | 2                 | 479                   | Skarø                 | 197           | 27                | 32                |
| 361                   | Langø                         | 127           | 8                 | 5                 | 431                   | Store Svelmø          | 27            | 1                 |                   |
| 365                   | Lindholm                      | 7             | 4                 | 3                 | 475                   | Strynø                | 488           | 208               | 199               |
| 397                   | Masnedø                       | 168           | 140               | 138               | 479                   | Thurø                 | 753           | 3 682             | 3 665             |
| 365                   | Møn                           | 21 775        | 10 542            | 10 587            | 447                   | Tornø                 | 21            | 1                 | 1                 |
| 301                   | Nekselø                       | 223           | 22                | 22                | 421                   | Torø                  | 64            | 2                 | 2                 |
| 365                   | Nyord                         | 499           | 47                | 45                | 479                   | Tåsinge               | 6 979         | 6 184             | 6 071             |
| 331                   | Omø                           | 452           | 159               | 171               | 423                   | Æbelø                 | 232           | 2                 | 2                 |
| 315                   | Orø                           | 1 502         | 1 007             | 1 012             |                       | Ærø                   | 8 807         | 7 392             | 7 306             |
| 185                   | Saltholm                      | 1 599         | 8                 | 8                 |                       | 80 named islands      | 1 079         | •                 | •                 |
| 301                   | Sejerø                        | 1 237         | 392               | 377               |                       |                       |               |                   |                   |
| 101                   | Slotsholmen                   | 21            | 21                | 25                |                       | Jutland               | 2 977 792     | 2 463 182         | 2 469 789         |
| 361                   | Tærø                          | 175           | 4                 | 4                 | -                     | Jutland peninsular    | 2 387 424     | 2 067 637         | 2 074 944         |
|                       | 76 named islands <sup>1</sup> | 734           | •                 | •                 | -                     | Vendsyssel-Thy        | 468 572       | 307 745           | 307 280           |
|                       |                               |               |                   |                   | 773                   | Agerø                 | 385           | 32                | 28                |
|                       |                               |               |                   |                   | 727                   | Alrø                  | 751           | 177               | 171               |
|                       |                               |               |                   |                   |                       | Als                   | 31 222        | 51 526            | 51 437            |
|                       | Lolland, Falster              |               |                   |                   | 707                   | Anholt                | 2 237         | 164               | 171               |
|                       | and their islands             | 179 534       | 114 688           | 114 492           | 545                   | Barsø                 | 266           | 26                | 22                |
|                       | Lolland                       | 124 286       | 70 640            | 70 383            | 851                   | Egholm                | 600           | 50                | 52                |
|                       | Falster                       | 51 376        | 43 171            | 43 261            | 615                   | Endelave              | 1 308         | 163               | 166               |
| 363                   | Askø                          | 282           | 55                | 54                | 563                   | Fanø                  | 5 578         | 3 214             | 3 212             |
| 381                   | Barneholm                     | 10            | 2                 | 2                 | 783                   | Fur                   | 2 229         | 949               | 949               |
| 379                   | Fejø                          | 1 600         | 606               | 590               | 813                   | Hirsholm              | 17            | 4                 | 4                 |
| 379                   | Femø                          | 1 138         | 182               | 172               | 619                   | Hjarnø                | 321           | 110               | 121               |
| 363                   | Lilleø                        | 86            | 18                | 15                | 675                   | Jegindø               | 791           | 544               | 547               |
| 379                   | Skalø                         | 106           | 11                | 11                | 529                   | Kalvø                 | 18            | 12                | 13                |
| 379                   | Vejlø                         | 37            | 2                 | 2                 | 827                   | Livø                  | 331           | 8                 | 8                 |
| 379                   | Vejrø                         | 157           | 1                 | 2                 | 825                   | Læsø                  | 10 122        | 2 293             | 2 266             |
|                       | 35 named islands              | 456           | •                 | •                 | 571                   | Mandø                 | 763           | 69                | 64                |
|                       |                               |               |                   |                   | 773                   | Mors                  | 36 331        | 22 957            | 22 778            |
|                       |                               |               |                   |                   | 531                   | Rømø                  | 12 886        | 771               | 777               |
|                       | Bornholm and                  |               |                   |                   | 741                   | Samsø                 | 11 206        | 4 233             | 4 266             |
|                       | its islands                   | 58 853        | 44 337            | 44 126            | 503                   | Store Okseø           | 11            | 3                 | 4                 |
|                       | Bornholm                      | 58 813        | 44 238            | 44 024            | 727                   | Tunø                  | 352           | 92                | 94                |
| 411                   | Christiansø <sup>2</sup>      | 25            | 99                | 102               | 671                   | Venø                  | 646           | 188               | 206               |
| 411                   | Frederiksø <sup>2</sup>       | 4             |                   |                   | 515                   | Årø                   | 566           | 215               | 209               |
| 411                   | 6 named islands               | 11            |                   | •                 |                       | 129 named islands     | 2 859         | •                 | •                 |

Note: Als includes the following municipalities: 501, 523, 535 plus 24,399 people in Sønderborg Municipality. - Amager includes the following habitants municipalities: 155 and 185 (excl. Saltholm) plus 103,133 people in Copenhagen Municipality. - Bornholm includes the following municipalities: 401, 403, 405, 407 and 409. - 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 37,343 people in Aalborg Municipality, Aggersborg parish 542 people in Løgstør Municipality. - Ærø includes municipality 443 (excl. the island of Birkholm) and municipality 493. In total 326 named islands is without inhabitants.

<sup>1</sup> Peberholm is a new island with 123 ha without inhabitants. <sup>2</sup> Not included in the division of municipalities, administered by the Ministry of Defence.

### Area analysed by use

|  | 1965   | 1982                | 1995   | 1995 |
|--|--------|---------------------|--------|------|
|  |        | — km <sup>2</sup> — |        | pct. |
| Total area   | 43 070 | 43 080              | 43 095 | 100  |
| Urban areas, residential and industrial <sup>1</sup> | 3 890  | 5 350               | 8 185  | 19   |
| Hedgerows, ditches, track roads, etc.                | 1 370  | 1 1 3 0             |        |      |
| Cultivated land, market gardens and orchards         | 26 930 | 26 510              | 27 260 | 63   |
| Forests and plantations, incl. agricultural forests  | 4 720  | 5 010               | 4 450  | 10   |
| Meadows, marshland, etc.                             | 3 250  | 2 460               | 1 170  | 3    |
| Mooreland, sand dunes and bogs                       | 2 230  | 1 980               | 1 380  | 3    |
| Lakes and streams                                    | 680    | 640                 | 650    | 2    |

Note. Figures are partly estimates and include some uncertainty.

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

## Table 5

### Preserved areas by date of preservation

|   | Preserved<br>areas<br>before<br>and incl.<br>1990 | Preserved<br>in 1991-<br>1995 | Preserved<br>in 1996-<br>1999 | Preserved<br>in 2000 | Preserved<br>areas<br>total<br>up to<br>2000 | Preserved<br>areas<br>as pct. of<br>the total<br>area |
|---|---|-------------------------------|-------------------------------|----------------------|--|---|
|   |   |                               | km                            | 2                    |  |   |
| All Denmark   | 1 846   | 97                            | 41                            | 18                   | 2 003  | 4.6   |
| Copenhagen region <sup>1</sup><br>Divided after 1997: | 285   | 14                            | 16                            | 2                    | 317  | 11.1  |
| - Copenhagen County                                   |   |                               |                               | 1                    | 1  |   |
| <ul> <li>Frederiksborg County</li> </ul>              |   |                               |                               | 2                    | 2  |   |
| - Roskilde County                                     |   |                               |                               | -                    | 1  |   |
| West Zealand County                                   | 121   | 21                            | 1                             | -                    | 143  | 4.8   |
| Storstrøm County                                      | 108   | 16                            | 0                             | -                    | 124  | 3.7   |
| Bornholm County                                       | 36  | -                             | 2                             | 0                    | 38   | 6.4   |
| Funen County  | 54  | 11                            | 0                             | -                    | 65   | 1.9   |
| South Jutland County                                  | 92  | 4                             | 2                             | -                    | 98   | 2.5   |
| Ribe County   | 111   | 2                             | 0                             | -                    | 112  | 3.6   |
| Vejle County  | 131   | 1                             | 15                            | -                    | 146  | 4.9   |
| Ringkøbing County                                     | 181   | 1                             | 0                             | 0                    | 183  | 3.8   |
| Århus County  | 204   | 12                            | 0                             | 0                    | 217  | 4.8   |
| Viborg County   | 254   | 11                            | 0                             | -                    | 265  | 6.4   |
| North Jutland County                                  | 271   | 5                             | 4                             | 15                   | 294  | 4.8   |
| 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>1</sup> From 1998 it is possible to get the preserved areas for each county in the Copenhagen region. The Copenhagen and Frederiksberg municipalities are registred under Copenhagen County.

Source: National Forest and Nature Agency.

### Area analysed by use

|  | 1965   | 1982                | 1995   | 1995 |
|--|--------|---------------------|--------|------|
|  |        | — km <sup>2</sup> — |        | pct. |
| Total area   | 43 070 | 43 080              | 43 095 | 100  |
| Urban areas, residential and industrial <sup>1</sup> | 3 890  | 5 350               | 8 185  | 19   |
| Hedgerows, ditches, track roads, etc.                | 1 370  | 1 1 3 0             |        |      |
| Cultivated land, market gardens and orchards         | 26 930 | 26 510              | 27 260 | 63   |
| Forests and plantations, incl. agricultural forests  | 4 720  | 5 010               | 4 450  | 10   |
| Meadows, marshland, etc.                             | 3 250  | 2 460               | 1 170  | 3    |
| Mooreland, sand dunes and bogs                       | 2 230  | 1 980               | 1 380  | 3    |
| Lakes and streams                                    | 680    | 640                 | 650    | 2    |

Note. Figures are partly estimates and include some uncertainty.

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

## Table 5

### Preserved areas by date of preservation

|   | Preserved<br>areas<br>before<br>and incl.<br>1990 | Preserved<br>in 1991-<br>1995 | Preserved<br>in 1996-<br>1999 | Preserved<br>in 2000 | Preserved<br>areas<br>total<br>up to<br>2000 | Preserved<br>areas<br>as pct. of<br>the total<br>area |
|---|---|-------------------------------|-------------------------------|----------------------|--|---|
|   |   |                               | km                            | 2                    |  |   |
| All Denmark   | 1 846   | 97                            | 41                            | 18                   | 2 003  | 4.6   |
| Copenhagen region <sup>1</sup><br>Divided after 1997: | 285   | 14                            | 16                            | 2                    | 317  | 11.1  |
| - Copenhagen County                                   |   |                               |                               | 1                    | 1  |   |
| <ul> <li>Frederiksborg County</li> </ul>              |   |                               |                               | 2                    | 2  |   |
| - Roskilde County                                     |   |                               |                               | -                    | 1  |   |
| West Zealand County                                   | 121   | 21                            | 1                             | -                    | 143  | 4.8   |
| Storstrøm County                                      | 108   | 16                            | 0                             | -                    | 124  | 3.7   |
| Bornholm County                                       | 36  | -                             | 2                             | 0                    | 38   | 6.4   |
| Funen County  | 54  | 11                            | 0                             | -                    | 65   | 1.9   |
| South Jutland County                                  | 92  | 4                             | 2                             | -                    | 98   | 2.5   |
| Ribe County   | 111   | 2                             | 0                             | -                    | 112  | 3.6   |
| Vejle County  | 131   | 1                             | 15                            | -                    | 146  | 4.9   |
| Ringkøbing County                                     | 181   | 1                             | 0                             | 0                    | 183  | 3.8   |
| Århus County  | 204   | 12                            | 0                             | 0                    | 217  | 4.8   |
| Viborg County   | 254   | 11                            | 0                             | -                    | 265  | 6.4   |
| North Jutland County                                  | 271   | 5                             | 4                             | 15                   | 294  | 4.8   |
| 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>1</sup> From 1998 it is possible to get the preserved areas for each county in the Copenhagen region. The Copenhagen and Frederiksberg municipalities are registred under Copenhagen County.

Source: National Forest and Nature Agency.

#### Denmark's largest lakes

| Lake's name               | Lake's name Location |                   | 99-2000 | Lake's name    | Location      | 1980-89 199     | 99-2000 |
|---------------------------|----------------------|-------------------|---------|----------------|---------------|-----------------|---------|
|                           |                      | 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.

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

Source: National Survey and Cadastre.

| Table 7  | Meteorological conditions. Temperature and degree-days 2000 |                               |                               |                               |                              |                             |                             |                             |                             |                              |                               |                                |                                |
|--|---|-------------------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|
|  | Jan.  | Feb.                          | Mar.                          | Apr.                          | May                          | Jun.                        | Jul.                        | Aug.                        | Sep.                        | Oct.                         | Nov.                          | Dec.                           | All year                       |
| Maximum temperature <sup>2</sup><br>1874-2000 Temp.<br>Measured during the years<br>2000       | 12.0<br><i>1999</i><br>9.7                                  | 15.8<br><i>1990</i><br>11.8   | 22.2<br><i>1990</i><br>16.4   | 28.6<br><i>1993</i><br>27.9   | 32.8<br><i>1892</i><br>29.8  | 35.5<br><i>1947</i><br>32.9 | 35.3<br><i>1941</i><br>27.0 | 36.4<br><i>1975</i><br>27.4 | 32.3<br><i>1906</i><br>23.6 | 24.1<br><i>1978</i><br>20.5  | 18.5<br><i>1968</i><br>14.3   | 14.5<br><i>1953</i><br>13.0    | 36.4<br><i>1975</i><br>32.9    |
| <b>Average daily tempera-<br/>ture<sup>1</sup></b><br>Normal (1961-1990)<br>2000               | 2.0<br>4.9  | 2.2<br>5.6                    | 4.9<br>6.6                    | 9.6<br>11.9                   | 15.0<br>17.1                 | 18.7<br>17.5                | 19.8<br>18.5                | 20.0<br>19.5                | 16.4<br>16.2                | 12.1<br>13.4                 | 7.0<br>8.7                    | 3.7<br>5.5                     | 10.9<br>12.1                   |
| <b>Mean temperature</b><br>Normal (1961-1990)<br>2000  | 0.0<br>3.0  | 0.0<br>3.6                    | 2.1<br>3.8                    | 5.7<br>8.2                    | 10.8<br>12.7                 | 14.3<br>13.7                | 15.6<br>14.9                | 15.7<br>15.2                | 12.7<br>13.2                | 9.1<br>11.0                  | 4.7<br>7.0                    | 1.6<br>3.8                     | 7.7<br>9.2                     |
| <b>Average nightly tempera-<br/>ture</b> <sup>1</sup><br>Normal (1961-1990)<br>2000            | - 2.9<br>0.5  | - 2.8<br>1.4                  | - 0.8<br>0.9                  | 2.1<br>4.6                    | 6.5<br>8.1                   | 9.9<br>10.2                 | 11.5<br>11.6                | 11.3<br>11.6                | 9.1<br>10.2                 | 6.1<br>8.5                   | 2.3<br>5.0                    | - 0.7<br>1.7                   | 4.3<br>6.2                     |
| <b>Minimum temperature<sup>2</sup></b><br>1874-2000 Temp.<br>Measured during the years<br>2000 | - 31.2<br><i>1982</i><br>-19.3                              | - 29.0<br><i>1942</i><br>-8.3 | - 27.0<br><i>1888</i><br>-5.9 | - 19.0<br><i>1922</i><br>-4.1 | - 8.0<br><i>1900</i><br>-0.5 | - 3.5<br><i>1936</i><br>2.0 | - 0.9<br><i>1903</i><br>3.9 | - 2.0<br><i>1885</i><br>3.5 | - 5.6<br><i>1886</i><br>1.4 | - 11.9<br><i>1880</i><br>3.1 | - 21.3<br><i>1973</i><br>-0.7 | - 25.6<br><i>1981</i><br>-15.1 | - 31.2<br><i>1982</i><br>-19.3 |
| <b>Degree-days</b><br>Normal (1971-1990)<br>2000   | 516<br>433  | 473 <sup>3</sup><br>389       | 452<br>409                    | 339<br>266                    | 186<br>139                   |                             |                             |                             | 136<br>115                  | 251<br>186                   | 361<br>300                    | 461<br>409                     | 3 175<br>2 645                 |

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.

<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). Degre e 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 1874-2000 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. Source: Danish Meteorological Institute.

#### Denmark's largest lakes

| Lake's name               | Lake's name Location |                   | 99-2000 | Lake's name    | Location      | 1980-89 199     | 99-2000 |
|---------------------------|----------------------|-------------------|---------|----------------|---------------|-----------------|---------|
|                           |                      | 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.

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

Source: National Survey and Cadastre.

| Table 7  | Meteorological conditions. Temperature and degree-days 2000 |                               |                               |                               |                              |                             |                             |                             |                             |                              |                               |                                |                                |
|--|---|-------------------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|
|  | Jan.  | Feb.                          | Mar.                          | Apr.                          | May                          | Jun.                        | Jul.                        | Aug.                        | Sep.                        | Oct.                         | Nov.                          | Dec.                           | All year                       |
| Maximum temperature <sup>2</sup><br>1874-2000 Temp.<br>Measured during the years<br>2000       | 12.0<br><i>1999</i><br>9.7                                  | 15.8<br><i>1990</i><br>11.8   | 22.2<br><i>1990</i><br>16.4   | 28.6<br><i>1993</i><br>27.9   | 32.8<br><i>1892</i><br>29.8  | 35.5<br><i>1947</i><br>32.9 | 35.3<br><i>1941</i><br>27.0 | 36.4<br><i>1975</i><br>27.4 | 32.3<br><i>1906</i><br>23.6 | 24.1<br><i>1978</i><br>20.5  | 18.5<br><i>1968</i><br>14.3   | 14.5<br><i>1953</i><br>13.0    | 36.4<br><i>1975</i><br>32.9    |
| <b>Average daily tempera-<br/>ture<sup>1</sup></b><br>Normal (1961-1990)<br>2000               | 2.0<br>4.9  | 2.2<br>5.6                    | 4.9<br>6.6                    | 9.6<br>11.9                   | 15.0<br>17.1                 | 18.7<br>17.5                | 19.8<br>18.5                | 20.0<br>19.5                | 16.4<br>16.2                | 12.1<br>13.4                 | 7.0<br>8.7                    | 3.7<br>5.5                     | 10.9<br>12.1                   |
| <b>Mean temperature</b><br>Normal (1961-1990)<br>2000  | 0.0<br>3.0  | 0.0<br>3.6                    | 2.1<br>3.8                    | 5.7<br>8.2                    | 10.8<br>12.7                 | 14.3<br>13.7                | 15.6<br>14.9                | 15.7<br>15.2                | 12.7<br>13.2                | 9.1<br>11.0                  | 4.7<br>7.0                    | 1.6<br>3.8                     | 7.7<br>9.2                     |
| <b>Average nightly tempera-<br/>ture</b> <sup>1</sup><br>Normal (1961-1990)<br>2000            | - 2.9<br>0.5  | - 2.8<br>1.4                  | - 0.8<br>0.9                  | 2.1<br>4.6                    | 6.5<br>8.1                   | 9.9<br>10.2                 | 11.5<br>11.6                | 11.3<br>11.6                | 9.1<br>10.2                 | 6.1<br>8.5                   | 2.3<br>5.0                    | - 0.7<br>1.7                   | 4.3<br>6.2                     |
| <b>Minimum temperature<sup>2</sup></b><br>1874-2000 Temp.<br>Measured during the years<br>2000 | - 31.2<br><i>1982</i><br>-19.3                              | - 29.0<br><i>1942</i><br>-8.3 | - 27.0<br><i>1888</i><br>-5.9 | - 19.0<br><i>1922</i><br>-4.1 | - 8.0<br><i>1900</i><br>-0.5 | - 3.5<br><i>1936</i><br>2.0 | - 0.9<br><i>1903</i><br>3.9 | - 2.0<br><i>1885</i><br>3.5 | - 5.6<br><i>1886</i><br>1.4 | - 11.9<br><i>1880</i><br>3.1 | - 21.3<br><i>1973</i><br>-0.7 | - 25.6<br><i>1981</i><br>-15.1 | - 31.2<br><i>1982</i><br>-19.3 |
| <b>Degree-days</b><br>Normal (1971-1990)<br>2000   | 516<br>433  | 473 <sup>3</sup><br>389       | 452<br>409                    | 339<br>266                    | 186<br>139                   |                             |                             |                             | 136<br>115                  | 251<br>186                   | 361<br>300                    | 461<br>409                     | 3 175<br>2 645                 |

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.

<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). Degre e 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 1874-2000 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. Source: Danish Meteorological Institute.

Meteorological conditions. Precipitation, sunshine hours, etc. 2000

|  | Jan.              | Feb.    | Mar.    | Apr.    | May     | Jun.    | Jul.       | Aug.    | Sep.    | Oct.    | Nov.   | Dec.    | Year<br>total |
|--|-------------------|---------|---------|---------|---------|---------|------------|---------|---------|---------|--------|---------|---------------|
| Precipitation                              |                   |         |         |         |         |         | mm _       |         |         |         |        |         |               |
| Normal (1961-1990)                         | 57                | 38      | 46      | 41      | 48      | 55      | 66         | 67      | 73      | 76      | 79     | 66      | 712           |
| All Denmark                                | 59                | 74      | 61      | 42      | 51      | 55      | 43         | 49      | 74      | 96      | 93     | 71      | 768           |
| Cph Municipality,                          |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| Frb.Municipality, Cph.                     | 41                | 41      | 73      | 35      | 29      | 58      | 44         | 48      | 84      | 60      | 50     | 49      | 701           |
| County, Fr.borg County, and                |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| Roskilde County                            |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| West Zealand County                        | 39                | 45      | 63      | 45      | 30      | 44      | 27         | 33      | 71      | 59      | 56     | 54      | 566           |
| Storstrøm County                           | 44                | 56      | 50      | 29      | 40      | 46      | 29         | 23      | 62      | 47      | 55     | 45      | 526           |
| Bornholm County                            | 42                | 52      | 56      | 26      | 34      | 74      | 33         | 27      | 59      | 47      | 74     | 38      | 562           |
| Funen County                               | 48                | 63      | 57      | 47      | 31      | 44      | 30         | 45      | 63      | 70      | 59     | 49      | 606           |
| South Jutland County                       | 67                | 79      | 73      | 47      | 55      | 53      | 41         | 55      | 56      | 110     | 97     | 66      | 799           |
| Ribe County                                | 60                | 82      | 61      | 37      | 59      | 43      | 43         | 40      | 69      | 114     | 150    | 70      | 828           |
| Vejle County                               | 57                | 78      | 57      | 39      | 49      | 50      | 43         | 52      | 65      | 99      | 81     | 70      | 740           |
| Ringkøbing County                          | 81                | 106     | 55      | 33      | 67      | 53      | 52         | 76      | 91      | 136     | 152    | 92      | 994           |
| Aarhus County                              | 41                | 54      | 66      | 42      | 58      | 61      | 51         | 50      | 96      | 79      | 77     | 65      | 740           |
| Viborg County                              | 81                | 102     | 55      | 41      | 68      | 54      | 46         | 53      | 80      | 122     | 111    | 91      | 904           |
| North Jutland County                       | 60                | 74      | 53      | 60      | 58      | 75      | 49         | 47      | 68      | 119     | 92     | 84      | 839           |
|  |                   |         |         |         |         |         | – per cent |         |         |         |        |         |               |
| Relative humidity, all Den                 | mark <sup>1</sup> |         |         |         |         |         |            |         |         |         |        |         |               |
| Normal (1961-1990)                         | 91                | 90      | 87      | 80      | 75      | 77      | 79         | 79      | 83      | 87      | 89     | 90      | 84            |
| 2000                                       | 90                |         | 86      | 85      | 77      | 82      | 85         | 83      | 85      | 91      | 93     | 92      | 87            |
| Cloud cover, all Den-<br>mark <sup>2</sup> |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| Normal (1961-1990)                         | 79                | 73      | 69      | 63      | 60      | 59      | 62         | 59      | 63      | 70      | 74     | 77      | 67            |
| 2000                                       | 72                |         | 71      | 69      | 45      | 67      | 72         | 63      | 65      | 73      | 77     | 75      | 69            |
|  |                   |         |         |         |         |         | — hours -  |         |         |         |        |         |               |
| Bright sunshine, all Den-                  |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| mark <sup>3</sup>                          |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| Normal (1961-1990)                         | 41                | 71      | 117     | 178     | 240     | 249     | 236        | 224     | 152     | 99      | 57     | 39      | 1 701         |
| 2000                                       | 64                | 73      | 121     | 162     | 318     | 230     | 200        | 218     | 152     | 86      | 48     | 38      | 1 710         |
|  |                   |         |         |         |         |         | — НРа —    |         |         |         |        |         |               |
| Mean air pressure (sea lev                 |                   |         |         |         |         |         |            |         |         |         |        |         |               |
|  |                   | 1 007.9 |         |         |         |         |            |         |         |         |        |         |               |
| Copenhagen Airport                         | 1 015.1           | 1 010.9 | 1 013.1 | 1 010.3 | 1 016.3 | 1 015.5 | 1 009.0    | 1 015.9 | 1 016.4 | 1 011.8 | 1005.9 | 1 008.4 | 1 012.4       |
|  |                   |         |         |         |         |         | – per cent |         |         |         |        |         |               |
| Wind incidence <sup>4</sup>                | 100               | 100     | 100     | 100     | 100     | 100     | 100        | 100     | 100     | 100     | 100    | 100     | 100           |
| North                                      | 7                 |         | 8       | 8       | 6       | 3       | 11         | 2       | 6       | 1       | 0      | 7       | 5             |
| North-East                                 | 2                 |         | 12      | 7       | 9       | 4       | 6          | 1       | 3       | 1       | <      | 8       | 5             |
| East                                       | 3                 |         | 7       | 22      | 16      | 8       | 7          | 5       | 35      | 9       | 6      | 7       | 11            |
| South-East                                 | 3                 | 5       | 4       | 18      | 11      | 7       | 4          | 10      | 27      | 23      | 25     | 13      | 13            |
| South                                      | 9                 |         | 5       | 11      | 14      | 10      | 6          | 11      | 8       | 35      | 46     | 26      | 16            |
| South-West                                 | 32                | 29      | 13      | 13      | 17      | 19      | 9          | 21      | 8       | 20      | 20     | 24      | 19            |
| West                                       | 31                | 32      | 34      | 11      | 20      | 35      | 39         | 39      | 9       | 10      | 4      | 7       | 23            |
| North-West                                 | 14                |         | 17      | 9       | 6       | 14      | 16         | 10      | 4       | 1       | <      | 6       | 9             |
| Calm                                       | <                 |         | <       | 1       | 1       | 1       | 1          | 2       | <       | <       | <      | 1       | 1             |
|  |                   |         |         |         |         |         | — m/s —    |         |         |         |        |         |               |
| Mean wind force <sup>5</sup>               |                   |         |         |         |         |         |            |         |         |         |        |         |               |
| 2000                                       | 6.9               | 7.0     | 6.3     | 4.5     | 4.6     | 5.6     | 4.5        | 4.8     | 5.8     | 5.9     | 6.0    | 5.2     | 5.6           |
|  | 0.5               |         | 0.5     |         |         | 5.0     |            |         | 5.0     | 5.5     | 0.0    | 5.2     | 2.0           |

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.

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>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. m<sup>2</sup>) is registered throughout the day on a sunshine recorder. <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.

Source: Danish Meteorological Institute.

| Table 9  | Meteorological conditions. Daily information 2000 |             |             |            |            |            |            |            |            |            |            |              |               |
|--|---|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|---------------|
|  | Jan.  | Feb.        | Mar.        | Apr.       | May        | Jun.       | Jul.       | Aug.       | Sep.       | Oct.       | Nov.       | Dec.         | Year<br>total |
| Number of days within a<br>month<br>all Denmark                          |   |             |             |            |            |            |            |            |            |            |            |              |               |
| <b>Summer days (max. &gt;25°)</b><br>Normal (1961-1990)<br>2000          | -   | -           | -           | -<br>0.2   | 0.2<br>1.2 | 1.9<br>2.7 | 2.6<br>0.2 | 2.3<br>0.2 | 0.1        | -          | -          | -            | 7.2<br>4.5    |
| <b>Ice days (max. &lt;0°)</b><br>Normal (1961-1990)<br>2000              | 8.6<br>1.8  | 7.5         | 2.2         | 0.1        | -          | -          | -          | -          | -          | -          | 0.6        | 4.0<br>2.4   | 23.0<br>4.2   |
| <b>Frost days (min. &lt;0°)</b><br>Normal (1961-1990)<br>2000            | 19.0<br>10.0                                      | 19.0<br>6.4 | 15.0<br>9.8 | 6.6<br>3.1 | 0.7        | <<br>-     | -          | -          | 0.2        | 1.8        | 7.3<br>0.3 | 15.0<br>12.1 | 84.0<br>41.7  |
| <b>Days with fog</b><br>Normal (1961-1990)<br>2000                       | 10.0<br>4.8                                       | 9.3<br>4.6  | 9.2<br>6.7  | 7.5<br>8.5 | 5.1<br>4.9 | 2.6<br>3.7 | 2.6<br>7.8 | 3.2<br>7.7 | 4.3<br>4.5 | 7.0<br>9.3 | 5.7<br>5.1 | 7.0<br>8.1   | 74.0<br>75.7  |
| Precipitation days (R <sup>3</sup> 0.1 mm)<br>Normal (1961-1990)<br>2000 | 17<br>17.5  | 13<br>21.5  | 14<br>18.0  | 12<br>11.7 | 12<br>11.2 | 12<br>13.5 | 13<br>11.0 | 13<br>13.1 | 15<br>13.4 | 16<br>20.1 | 18<br>22.4 | 17<br>19.3   | 171<br>192.7  |
| Heavy precipitation days (R <sup>3</sup><br>10 mm)<br>Normal (1961-1990) | 1.1   | 0.5         | 0.7         | 0.7        | 1.1        | 1.5        | 1.8        | 1.8        | 2.0        | 2.2        | 2.0        | 1.6          | 17.0          |
| 2000<br><b>Days with snow</b><br>Normal (1961-1990)                      | 1.5<br>7.6  | 0.9<br>6.4  | 1.5<br>5.3  | 0.9<br>2.6 | 1.1<br>0.2 | 1.5        | 1.3        | 1.0        | 2.0        | 2.5<br>0.1 | 1.6<br>2.3 | 1.4<br>5.8   | 17.1<br>30.0  |
| 2000<br>Windy days in pct.<br>2000                                       | 2.8<br>15   | 2.5<br>12   | 3.7<br>13   | -<br>2     | -          | -<br>5     | -<br>2     | -<br>3     | -<br>6     | -<br>9     | 0.1<br>7   | 3.2<br>6     | 12.2<br>7     |
| <b>Days with thunder</b><br>Normal (1961-1990)<br>2000                   | 0.1<br>0.4  | 0.1<br>0.4  | 0.1<br><    | 0.2<br>1.2 | 1.3<br>1.3 | 2.0<br>2.2 | 2.3<br>1.4 | 2.2<br>3.1 | 1.3<br>1.7 | 0.6<br>0.6 | 0.3<br>0.8 | 0.1<br>0.4   | 11.0<br>13.4  |

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. D ays 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 snow* are 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.

< means less than 0.1 but greater than 0.0. See also the note to the table on temperature and degree days.

Source: Danish Meteorological Institute.

| Table 10   |       | Air pollu | tion in c | ities |                            |              |      |      |      |      |
|------------|-------|-----------|-----------|-------|----------------------------|--------------|------|------|------|------|
|            | 1991  | 1992      | 1993      | 1994  | 1995                       | 1996         | 1997 | 1998 | 1999 | 2000 |
|            |       |           |           |       | µg/m <sup>3</sup> sulphu   | r dioxide —— |      |      |      |      |
| Copenhagen | 18.1  | 14.1      | 11.5      | 8.7   | 9.0                        | 7.0          | 4.6  | 4.3  | 4.0  | 3.3  |
| Ålborg     | 11.8  | 7.1       | 6.6       | 4.6   | 4.0                        | 5.0          | 2.7  | 2.7  | 1.8  |      |
| Odense     | 11.0  | 6.9       | 6.5       | 4.3   | 3.8                        | 4.9          | 2.6  | 2.1  | 1.7  | 1.3  |
|            |       |           |           |       | µg/m³ nitrogei             | n dioxide —— |      |      |      |      |
| Copenhagen | 51.7  | 51.7      | 43.4      | 46.7  | 53.0                       | 44.7         | 42.6 | 42.9 | 46.8 | 42.0 |
| Ålborg     | 40.4  | 37.8      | 38.0      | 36.1  | 37.4                       | 37.6         | 33.6 | 34.2 | 40.1 | 35.1 |
| Odense     | 42.3  | 36.4      | 36.6      | 35.8  | 34.4                       | 34.0         | 35.5 | 31.6 | 32.9 | 31.2 |
|            |       |           |           |       | ng/m <sup>3</sup> le       | ad ———       |      |      |      |      |
| Copenhagen | 236.9 | 198.6     | 119.1     | 37.1  | 26.0                       | 24.8         | 16.6 | 16.4 | 16.6 | 29.6 |
| Ålborg     | 262.7 | 212.0     | 140.1     | 44.7  | 31.4                       | 18.6         | 13.9 | 13.0 | 12.5 |      |
| Odense     | 168.4 | 130.4     | 96.5      | 31.9  | 22.3                       | 22.0         | 14.9 | 14.5 | 13.6 | 13.0 |
|            |       |           |           |       | – μg/m <sup>3</sup> partio | culates ——   |      |      |      |      |
| Copenhagen | 77.4  | 73.6      | 69.6      | 64.7  | 61.1                       | 65.3         | 46.8 | 45.5 | 47.2 | 48.7 |
| Ålborg     | 71.4  | 59.1      | 63.5      | 61.1  | 55.7                       | 68.9         | 53.7 | 50.7 | 51.3 |      |
| Odense     | 66.6  | 59.8      | 62.1      | 55.6  | 53.2                       | 62.7         | 61.4 | 45.6 | 46.6 | 47.6 |

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.

# Table 11Ozone 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<br>2000 | 321<br>305 | 357<br>339 | 372<br>340 | 358<br>352 | 350<br>348 | 324<br>335 | 311<br>336        | 294<br>306 | 297<br>280 | 269<br>279 | 277<br>282 | 307<br>326 | 320<br>319 |

<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 10   |       | Air pollu | tion in c | ities |                            |              |      |      |      |      |
|------------|-------|-----------|-----------|-------|----------------------------|--------------|------|------|------|------|
|            | 1991  | 1992      | 1993      | 1994  | 1995                       | 1996         | 1997 | 1998 | 1999 | 2000 |
|            |       |           |           |       | µg/m <sup>3</sup> sulphu   | r dioxide —— |      |      |      |      |
| Copenhagen | 18.1  | 14.1      | 11.5      | 8.7   | 9.0                        | 7.0          | 4.6  | 4.3  | 4.0  | 3.3  |
| Ålborg     | 11.8  | 7.1       | 6.6       | 4.6   | 4.0                        | 5.0          | 2.7  | 2.7  | 1.8  |      |
| Odense     | 11.0  | 6.9       | 6.5       | 4.3   | 3.8                        | 4.9          | 2.6  | 2.1  | 1.7  | 1.3  |
|            |       |           |           |       | µg/m³ nitrogei             | n dioxide —— |      |      |      |      |
| Copenhagen | 51.7  | 51.7      | 43.4      | 46.7  | 53.0                       | 44.7         | 42.6 | 42.9 | 46.8 | 42.0 |
| Ålborg     | 40.4  | 37.8      | 38.0      | 36.1  | 37.4                       | 37.6         | 33.6 | 34.2 | 40.1 | 35.1 |
| Odense     | 42.3  | 36.4      | 36.6      | 35.8  | 34.4                       | 34.0         | 35.5 | 31.6 | 32.9 | 31.2 |
|            |       |           |           |       | ng/m <sup>3</sup> le       | ad ———       |      |      |      |      |
| Copenhagen | 236.9 | 198.6     | 119.1     | 37.1  | 26.0                       | 24.8         | 16.6 | 16.4 | 16.6 | 29.6 |
| Ålborg     | 262.7 | 212.0     | 140.1     | 44.7  | 31.4                       | 18.6         | 13.9 | 13.0 | 12.5 |      |
| Odense     | 168.4 | 130.4     | 96.5      | 31.9  | 22.3                       | 22.0         | 14.9 | 14.5 | 13.6 | 13.0 |
|            |       |           |           |       | – μg/m <sup>3</sup> partio | culates ——   |      |      |      |      |
| Copenhagen | 77.4  | 73.6      | 69.6      | 64.7  | 61.1                       | 65.3         | 46.8 | 45.5 | 47.2 | 48.7 |
| Ålborg     | 71.4  | 59.1      | 63.5      | 61.1  | 55.7                       | 68.9         | 53.7 | 50.7 | 51.3 |      |
| Odense     | 66.6  | 59.8      | 62.1      | 55.6  | 53.2                       | 62.7         | 61.4 | 45.6 | 46.6 | 47.6 |

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.

# Table 11Ozone 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<br>2000 | 321<br>305 | 357<br>339 | 372<br>340 | 358<br>352 | 350<br>348 | 324<br>335 | 311<br>336        | 294<br>306 | 297<br>280 | 269<br>279 | 277<br>282 | 307<br>326 | 320<br>319 |

<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.

## **Emissions and depositions in Denmark 1998**

|                             | Danish emissions tr             | ansported to seled               | ted countries        | Depositions in Denmark from selected countries |                                  |                                  |  |
|-----------------------------|---------------------------------|----------------------------------|----------------------|--|----------------------------------|----------------------------------|--|
|                             | Sulphur<br>from SO <sub>2</sub> | Nitrogen<br>from NO <sub>x</sub> | Nitrogen from $NH_4$ | Sulphur<br>from SO <sub>2</sub>                | Nitrogen<br>from NO <sub>x</sub> | Nitrogen<br>from NH <sub>4</sub> |  |
|                             |                                 |                                  | tor                  | ıs   |                                  |                                  |  |
| 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.

## Table 13

## **Emissions from the transport sector 1999**

|                    | CO <sub>2</sub> | NO <sub>x</sub> | SO <sub>2</sub> | CO  |
|--------------------|-----------------|-----------------|-----------------|-----|
|                    |                 | thousand tons   |                 |     |
| Total <sup>1</sup> | 12 884          | 93              | 5               | 284 |
| Road transport     | 11 358          | 69              | 1               | 269 |
| Railway transport  | 257             | 2               | 0               | 0   |
| Air transport      | 150             | 2               | 0               | 2   |
| Sea transport      | 1 119           | 19              | 4               | 13  |
|                    |                 | per cent        |                 |     |
| Total <sup>1</sup> | 100             | 100             | 100             | 100 |
| Road transport     | 88              | 74              | 20              | 95  |
| Railway transport  | 2               | 2               | 0               | 0   |
| Air transport      | 1               | 2               | 0               | 1   |
| Sea transport      | 9               | 20              | 80              | 5   |

Source: National Environmental Research Institute of Denmark, Corinairdatabase.

<sup>1</sup> Emissions from military not included

## **Emissions and depositions in Denmark 1998**

|                             | Danish emissions tr             | ansported to seled               | ted countries        | Depositions in Denmark from selected countries |                                  |                                  |  |
|-----------------------------|---------------------------------|----------------------------------|----------------------|--|----------------------------------|----------------------------------|--|
|                             | Sulphur<br>from SO <sub>2</sub> | Nitrogen<br>from NO <sub>x</sub> | Nitrogen from $NH_4$ | Sulphur<br>from SO <sub>2</sub>                | Nitrogen<br>from NO <sub>x</sub> | Nitrogen<br>from NH <sub>4</sub> |  |
|                             |                                 |                                  | tor                  | ıs   |                                  |                                  |  |
| 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.

## Table 13

## **Emissions from the transport sector 1999**

|                    | CO <sub>2</sub> | NO <sub>x</sub> | SO <sub>2</sub> | CO  |
|--------------------|-----------------|-----------------|-----------------|-----|
|                    |                 | thousand tons   |                 |     |
| Total <sup>1</sup> | 12 884          | 93              | 5               | 284 |
| Road transport     | 11 358          | 69              | 1               | 269 |
| Railway transport  | 257             | 2               | 0               | 0   |
| Air transport      | 150             | 2               | 0               | 2   |
| Sea transport      | 1 119           | 19              | 4               | 13  |
|                    |                 | per cent        |                 |     |
| Total <sup>1</sup> | 100             | 100             | 100             | 100 |
| Road transport     | 88              | 74              | 20              | 95  |
| Railway transport  | 2               | 2               | 0               | 0   |
| Air transport      | 1               | 2               | 0               | 1   |
| Sea transport      | 9               | 20              | 80              | 5   |

Source: National Environmental Research Institute of Denmark, Corinairdatabase.

<sup>1</sup> Emissions from military not included

## Bathing water quality

| _    | Monitoring<br>stations | Acceptable<br>water<br>quality | Unacceptable<br>water<br>quality | Beach areas<br>where bathing<br>is forbidden |
|------|------------------------|--------------------------------|----------------------------------|--|
| 1985 | 1 374                  | 1 017                          | 288                              | 69   |
| 1990 | 1 338                  | 1 199                          | 70                               | 69   |
| 1991 | 1 307                  | 1 216                          | 54                               | 37   |
| 1992 | 1 282                  | 1 197                          | 55                               | 30   |
| 1993 | 1 282                  | 1 226                          | 33                               | 23   |
| 1994 | 1 288                  | 1 267                          | 33                               | 21   |
| 1995 | 1 301                  | 1 281                          | 52                               | 20   |
| 1996 | 1 299                  | 1 280                          | 57                               | 19   |
| 1997 | 1 310                  | 1 293                          | 18                               | 17   |
| 1998 | 1 300                  | 1 282                          | 45                               | 18   |
| 1999 | 1 300                  | 1 283                          | 30                               | 17   |
| 2000 | 1 300                  | 1 255                          | 28                               | 17   |
| 2001 | 1 275                  | 1 243                          | 17                               | 15   |

Source: Environmental Protection Agency.

## Table 15

### Consumption of drinking water by counties

|                            | 1997  | 1998                        | 1999  |
|----------------------------|-------|-----------------------------|-------|
|                            |       | m <sup>3</sup> in mio. ———— |       |
| All Denmark                | 464,8 | 441,3                       | 436,3 |
| Copenhagen Municipality    | 35,7  | 35,7                        | 36,3  |
| Frederiksberg Municipality | 6,5   | 6,2                         | 6,0   |
| Copenhagen County          | 45,5  | 43,9                        | 42,2  |
| Frederiksborg County       | 27,8  | 25,5                        | 27,3  |
| Roskilde County            | 17,3  | 16,2                        | 15,7  |
| West Zealand County        | 28,8  | 29,1                        | 29,6  |
| Storstrøm County           | 21,3  | 19,6                        | 19,4  |
| Bornholm County            | 4,6   | 4,3                         | 4,2   |
| Funen County               | 41,0  | 38,2                        | 37,5  |
| South Jutland County       | 23,6  | 23,1                        | 21,6  |
| Ribe County                | 22,7  | 21,6                        | 21,4  |
| Vejle County               | 32,9  | 30,5                        | 29,8  |
| Ringkøbing County          | 30,3  | 28,6                        | 28,7  |
| Aarhus County              | 54,3  | 50,4                        | 49,5  |
| Viborg County              | 25,0  | 23,1                        | 22,4  |
| North Jutland County       | 47,5  | 45,4                        | 45,0  |

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

## Bathing water quality

| _    | Monitoring<br>stations | Acceptable<br>water<br>quality | Unacceptable<br>water<br>quality | Beach areas<br>where bathing<br>is forbidden |
|------|------------------------|--------------------------------|----------------------------------|--|
| 1985 | 1 374                  | 1 017                          | 288                              | 69   |
| 1990 | 1 338                  | 1 199                          | 70                               | 69   |
| 1991 | 1 307                  | 1 216                          | 54                               | 37   |
| 1992 | 1 282                  | 1 197                          | 55                               | 30   |
| 1993 | 1 282                  | 1 226                          | 33                               | 23   |
| 1994 | 1 288                  | 1 267                          | 33                               | 21   |
| 1995 | 1 301                  | 1 281                          | 52                               | 20   |
| 1996 | 1 299                  | 1 280                          | 57                               | 19   |
| 1997 | 1 310                  | 1 293                          | 18                               | 17   |
| 1998 | 1 300                  | 1 282                          | 45                               | 18   |
| 1999 | 1 300                  | 1 283                          | 30                               | 17   |
| 2000 | 1 300                  | 1 255                          | 28                               | 17   |
| 2001 | 1 275                  | 1 243                          | 17                               | 15   |

Source: Environmental Protection Agency.

## Table 15

### Consumption of drinking water by counties

|                            | 1997  | 1998  | 1999  |
|----------------------------|-------|-------|-------|
|                            |       |       |       |
| All Denmark                | 464,8 | 441,3 | 436,3 |
| Copenhagen Municipality    | 35,7  | 35,7  | 36,3  |
| Frederiksberg Municipality | 6,5   | 6,2   | 6,0   |
| Copenhagen County          | 45,5  | 43,9  | 42,2  |
| Frederiksborg County       | 27,8  | 25,5  | 27,3  |
| Roskilde County            | 17,3  | 16,2  | 15,7  |
| West Zealand County        | 28,8  | 29,1  | 29,6  |
| Storstrøm County           | 21,3  | 19,6  | 19,4  |
| Bornholm County            | 4,6   | 4,3   | 4,2   |
| Funen County               | 41,0  | 38,2  | 37,5  |
| South Jutland County       | 23,6  | 23,1  | 21,6  |
| Ribe County                | 22,7  | 21,6  | 21,4  |
| Vejle County               | 32,9  | 30,5  | 29,8  |
| Ringkøbing County          | 30,3  | 28,6  | 28,7  |
| Aarhus County              | 54,3  | 50,4  | 49,5  |
| Viborg County              | 25,0  | 23,1  | 22,4  |
| North Jutland County       | 47,5  | 45,4  | 45,0  |

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

|                           | 1997                  | 1998  | 1999  |  |  |  |
|---------------------------|-----------------------|-------|-------|--|--|--|
|                           | m <sup>3</sup> in mio |       |       |  |  |  |
| All Denmark               | 464,8                 | 441,3 | 436,3 |  |  |  |
| Households                | 277,1                 | 266,2 | 269,7 |  |  |  |
| Industry and institutions | 147,0                 | 142,6 | 136,2 |  |  |  |
| Losses, etc.              | 40,7                  | 32,5  | 30,3  |  |  |  |

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

## Table 17

### Waterworks by content of nitrates in drinking water 1999

|                                | Waterworks 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                    | 74  | 16            | 7              | 3         |  |  |  |
| Copenhagen County <sup>1</sup> | 76  | 20            | 2              | 2         |  |  |  |
| Frederiksborg County           | 79  | 19            | 1              | 1         |  |  |  |
| Roskilde County                | 87  | 10            | 2              | 1         |  |  |  |
| West Zealand County            | 85  | 11            | 2              | 2         |  |  |  |
| Storstrøm County               | 82  | 16            | 1              | 1         |  |  |  |
| Bornholm County                | 78  | 13            | 9              | -         |  |  |  |
| Funen County                   | 87  | 11            | 2              | -         |  |  |  |
| South Jutland County           | 86  | 12            | 2              | -         |  |  |  |
| Ribe County                    | 82  | 16            | 1              | 1         |  |  |  |
| Vejle County                   | 84  | 10            | 5              | 1         |  |  |  |
| Ringkøbing County              | 84  | 8             | 7              | 1         |  |  |  |
| Aarhus County                  | 69  | 18            | 9              | 4         |  |  |  |
| Viborg County                  | 63  | 19            | 11             | 7         |  |  |  |
| North Jutland County           | 45  | 25            | 24             | 6         |  |  |  |

Note. The recommended limit value for nitrates in drinking water is 25 mg/l.

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

### Consumption of drinking water by purpose

|                           | 1997                  | 1998  | 1999  |  |  |  |
|---------------------------|-----------------------|-------|-------|--|--|--|
|                           | m <sup>3</sup> in mio |       |       |  |  |  |
| All Denmark               | 464,8                 | 441,3 | 436,3 |  |  |  |
| Households                | 277,1                 | 266,2 | 269,7 |  |  |  |
| Industry and institutions | 147,0                 | 142,6 | 136,2 |  |  |  |
| Losses, etc.              | 40,7                  | 32,5  | 30,3  |  |  |  |

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

## Table 17

### Waterworks by content of nitrates in drinking water 1999

|                                | Waterworks 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                    | 74  | 16            | 7              | 3         |  |  |  |
| Copenhagen County <sup>1</sup> | 76  | 20            | 2              | 2         |  |  |  |
| Frederiksborg County           | 79  | 19            | 1              | 1         |  |  |  |
| Roskilde County                | 87  | 10            | 2              | 1         |  |  |  |
| West Zealand County            | 85  | 11            | 2              | 2         |  |  |  |
| Storstrøm County               | 82  | 16            | 1              | 1         |  |  |  |
| Bornholm County                | 78  | 13            | 9              | -         |  |  |  |
| Funen County                   | 87  | 11            | 2              | -         |  |  |  |
| South Jutland County           | 86  | 12            | 2              | -         |  |  |  |
| Ribe County                    | 82  | 16            | 1              | 1         |  |  |  |
| Vejle County                   | 84  | 10            | 5              | 1         |  |  |  |
| Ringkøbing County              | 84  | 8             | 7              | 1         |  |  |  |
| Aarhus County                  | 69  | 18            | 9              | 4         |  |  |  |
| Viborg County                  | 63  | 19            | 11             | 7         |  |  |  |
| North Jutland County           | 45  | 25            | 24             | 6         |  |  |  |

Note. The recommended limit value for nitrates in drinking water is 25 mg/l.

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

### Amount of waste analysed by type of source and treatment 1999

|                         | Recycling | Incineration | Landfilling   | Special<br>treatment | Total  |
|-------------------------|-----------|--------------|---------------|----------------------|--------|
| _                       |           |              | thousand tons |                      |        |
| l alt                   | 7 885     | 2 913        | 1 433         | 97                   | 12 328 |
| Households              | 869       | 1 714        | 361           | 19                   | 2 963  |
| Institutions, wholesale |           |              |               |                      |        |
| and retail trade        | 353       | 422          | 164           | 16                   | 955    |
| Manufacturing           | 1 550     | 461          | 582           | 61                   | 2 653  |
| Construction            | 2 685     | 59           | 224           | 1                    | 2 968  |
| Waste water treatment   |           |              |               |                      |        |
| plants                  | 1 133     | 246          | 89            | 1                    | 1 469  |
| Power plants            | 1 295     | 0            | 9             | 0                    | 1 304  |

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.

### Table 19

### Amount of waste analysed by type of waste and treatment 1999

|                        | Recycling | Incineration | Landfilling     | Special<br>treatment | Total  |
|------------------------|-----------|--------------|-----------------|----------------------|--------|
| -                      |           |              | thousand tons — |                      |        |
| Total                  | 7 885     | 2 913        | 1 433           | 97                   | 12 328 |
| Daily refuse           | 265       | 1 352        | 123             | 0                    | 1 740  |
| Bulky waste            | 108       | 323          | 239             | 2                    | 672    |
| Garden waste           | 576       | 8            | 6               | 0                    | 590    |
| Commercial and         |           |              |                 |                      |        |
| industrial waste       | 4 454     | 960          | 901             | 1                    | 6 316  |
| Hazardous waste        | 47        | 4            | 10              | 91                   | 151    |
| Special hospital waste | 0         | 4            | 0               | 4                    | 8      |
| Processing residue     | 2 429     | 258          | 148             | 0                    | 2 836  |
| Not known              | 6         | 4            | 6               | 0                    | 16     |

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 source and treatment 1999

|                         | Recycling | Incineration | Landfilling   | Special<br>treatment | Total  |
|-------------------------|-----------|--------------|---------------|----------------------|--------|
| _                       |           |              | thousand tons |                      |        |
| l alt                   | 7 885     | 2 913        | 1 433         | 97                   | 12 328 |
| Households              | 869       | 1 714        | 361           | 19                   | 2 963  |
| Institutions, wholesale |           |              |               |                      |        |
| and retail trade        | 353       | 422          | 164           | 16                   | 955    |
| Manufacturing           | 1 550     | 461          | 582           | 61                   | 2 653  |
| Construction            | 2 685     | 59           | 224           | 1                    | 2 968  |
| Waste water treatment   |           |              |               |                      |        |
| plants                  | 1 133     | 246          | 89            | 1                    | 1 469  |
| Power plants            | 1 295     | 0            | 9             | 0                    | 1 304  |

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.

### Table 19

### Amount of waste analysed by type of waste and treatment 1999

|                        | Recycling | Incineration | Landfilling     | Special<br>treatment | Total  |
|------------------------|-----------|--------------|-----------------|----------------------|--------|
| -                      |           |              | thousand tons — |                      |        |
| Total                  | 7 885     | 2 913        | 1 433           | 97                   | 12 328 |
| Daily refuse           | 265       | 1 352        | 123             | 0                    | 1 740  |
| Bulky waste            | 108       | 323          | 239             | 2                    | 672    |
| Garden waste           | 576       | 8            | 6               | 0                    | 590    |
| Commercial and         |           |              |                 |                      |        |
| industrial waste       | 4 454     | 960          | 901             | 1                    | 6 316  |
| Hazardous waste        | 47        | 4            | 10              | 91                   | 151    |
| Special hospital waste | 0         | 4            | 0               | 4                    | 8      |
| Processing residue     | 2 429     | 258          | 148             | 0                    | 2 836  |
| Not known              | 6         | 4            | 6               | 0                    | 16     |

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.

## Sales of pesticides

|  | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   |
|--|--------|--------|--------|--------|--------|--------|
|  |        |        | tons - |        |        |        |
| Sales of pesticide products <sup>1</sup> |        |        |        |        |        |        |
| Total sale                               | 19 430 | 15 295 | 14 825 | 14 179 | 12 445 | 12 141 |
| Repellents                               | 136    | 64     | 59     | 56     | 84     | 35     |
| Fungicides                               | 2 395  | 1 626  | 2 105  | 1 911  | 1 999  | 1 757  |
| Rodenticides                             | 246    | 412    | 306    | 375    | 441    | 458    |
| Herbicides                               | 9 782  | 7 898  | 7 584  | 7 320  | 5 740  | 5 641  |
| Insecticides                             | 1 501  | 738    | 1 030  | 1 185  | 900    | 746    |
| Soil disinfectants                       | 21     | 48     | 3      | 0      | 4      | 2      |
| Combined fungicides and insecticides     | 31     | 18     | 19     | 26     | 16     | 15     |
| Algicides                                | 58     | 0      | 0      | 0      | 1      | 4      |
| Slimicides for use in paper pulp         | 91     | 50     | 50     | 39     | 60     | 61     |
| Products against pests on farm animals   | 594    | 378    | 355    | 141    | 111    | 134    |
| Products for the protection of woodwork  | 4 026  | 3 890  | 3 044  | 2 756  | 2 657  | 2 869  |
| Plant growth regulators                  | 551    | 173    | 271    | 369    | 432    | 420    |
| Of which active ingredients <sup>2</sup> |        |        |        |        |        |        |
| Active ingredients, total                | 6 630  | 5 271  | 4 582  | 4 326  | 3 605  | 3 551  |
| Repellents                               | 9      | 4      | 4      | 4      | 6      | 7      |
| Fungicides                               | 1 246  | 791    | 1 027  | 891    | 884    | 734    |
| Rodenticides                             | 3      | 3      | 4      | 4      | 3      | 6      |
| Herbicides                               | 3 690  | 3 127  | 2 923  | 2 781  | 2 059  | 2 136  |
| Insecticides                             | 220    | 90     | 97     | 102    | 86     | 77     |
| Soil disinfectants                       | 19     | 31     | 3      | 0      | 4      | 2      |
| Combined fungicides and insecticides     | 6      | 3      | 3      | 3      | 2      | 4      |
| Algicides                                | 5      | 0      | 0      | 0      | 0      | 1      |
| Slimicides for use in paper pulp         | 33     | 31     | 33     | 33     | 42     | 42     |
| Products against pests on farm animals   | 5      | 2      | 2      | 2      | 1      | 1      |
| Products for the protection of woodwork  | 1 069  | 1 097  | 346    | 297    | 261    | 295    |
| Plant growth regulators                  | 325    | 93     | 140    | 209    | 257    | 245    |

<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

## Table 21

#### **Extraction of raw materials**

|  | 1990   | 1995           | 1998                        | 1999   | 2000                |
|--|--------|----------------|-----------------------------|--------|---------------------|
|  |        | I              | m <sup>3</sup> in thousands |        |                     |
| Extraction of raw materials, total       | 33 975 | <b>34 21</b> 1 | 37 603                      | 47 858 | 40 738 <sup>1</sup> |
| Land:                                    |        |                |                             |        |                     |
| Granite                                  | 810    | 662            | 183                         | 180    | 199                 |
| Chalk, limestone                         | 2 924  | 4 049          | 3 445                       | 3 343  | 3 405               |
| Quartz sand                              | 186    | 191            | 191                         | 279    | 479                 |
| Clay                                     | 462    | 739            | 779                         | 828    | 788                 |
| Plastic clay and bentonite               | 303    | 311            | 325                         | 352    | 313                 |
| Moler                                    | 195    | 186            | 256                         | 197    | 227                 |
| Stone, gravel, sand                      | 22 534 | 21 721         | 24 885                      | 28 414 | 27 381              |
| Peat and sphagnum                        | 399    | 259            | 336                         | 253    | 247                 |
| Other raw materials                      | 292    | 440            | 205                         | 1 149  | 563                 |
| Sea                                      |        |                |                             |        |                     |
| Sand, gravel, sand for land filling etc. | 5 870  | 5 652          | 6 999                       | 12 863 | 7 136               |

<sup>1</sup> The figure is corrected in the electronic version of the yearbook.

Source: Counties and the National Forest and Nature Agency.

## Sales of pesticides

|  | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   |
|--|--------|--------|--------|--------|--------|--------|
|  |        |        | tons - |        |        |        |
| Sales of pesticide products <sup>1</sup> |        |        |        |        |        |        |
| Total sale                               | 19 430 | 15 295 | 14 825 | 14 179 | 12 445 | 12 141 |
| Repellents                               | 136    | 64     | 59     | 56     | 84     | 35     |
| Fungicides                               | 2 395  | 1 626  | 2 105  | 1 911  | 1 999  | 1 757  |
| Rodenticides                             | 246    | 412    | 306    | 375    | 441    | 458    |
| Herbicides                               | 9 782  | 7 898  | 7 584  | 7 320  | 5 740  | 5 641  |
| Insecticides                             | 1 501  | 738    | 1 030  | 1 185  | 900    | 746    |
| Soil disinfectants                       | 21     | 48     | 3      | 0      | 4      | 2      |
| Combined fungicides and insecticides     | 31     | 18     | 19     | 26     | 16     | 15     |
| Algicides                                | 58     | 0      | 0      | 0      | 1      | 4      |
| Slimicides for use in paper pulp         | 91     | 50     | 50     | 39     | 60     | 61     |
| Products against pests on farm animals   | 594    | 378    | 355    | 141    | 111    | 134    |
| Products for the protection of woodwork  | 4 026  | 3 890  | 3 044  | 2 756  | 2 657  | 2 869  |
| Plant growth regulators                  | 551    | 173    | 271    | 369    | 432    | 420    |
| Of which active ingredients <sup>2</sup> |        |        |        |        |        |        |
| Active ingredients, total                | 6 630  | 5 271  | 4 582  | 4 326  | 3 605  | 3 551  |
| Repellents                               | 9      | 4      | 4      | 4      | 6      | 7      |
| Fungicides                               | 1 246  | 791    | 1 027  | 891    | 884    | 734    |
| Rodenticides                             | 3      | 3      | 4      | 4      | 3      | 6      |
| Herbicides                               | 3 690  | 3 127  | 2 923  | 2 781  | 2 059  | 2 136  |
| Insecticides                             | 220    | 90     | 97     | 102    | 86     | 77     |
| Soil disinfectants                       | 19     | 31     | 3      | 0      | 4      | 2      |
| Combined fungicides and insecticides     | 6      | 3      | 3      | 3      | 2      | 4      |
| Algicides                                | 5      | 0      | 0      | 0      | 0      | 1      |
| Slimicides for use in paper pulp         | 33     | 31     | 33     | 33     | 42     | 42     |
| Products against pests on farm animals   | 5      | 2      | 2      | 2      | 1      | 1      |
| Products for the protection of woodwork  | 1 069  | 1 097  | 346    | 297    | 261    | 295    |
| Plant growth regulators                  | 325    | 93     | 140    | 209    | 257    | 245    |

<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

## Table 21

#### **Extraction of raw materials**

|  | 1990   | 1995           | 1998                        | 1999   | 2000                |
|--|--------|----------------|-----------------------------|--------|---------------------|
|  |        | I              | m <sup>3</sup> in thousands |        |                     |
| Extraction of raw materials, total       | 33 975 | <b>34 21</b> 1 | 37 603                      | 47 858 | 40 738 <sup>1</sup> |
| Land:                                    |        |                |                             |        |                     |
| Granite                                  | 810    | 662            | 183                         | 180    | 199                 |
| Chalk, limestone                         | 2 924  | 4 049          | 3 445                       | 3 343  | 3 405               |
| Quartz sand                              | 186    | 191            | 191                         | 279    | 479                 |
| Clay                                     | 462    | 739            | 779                         | 828    | 788                 |
| Plastic clay and bentonite               | 303    | 311            | 325                         | 352    | 313                 |
| Moler                                    | 195    | 186            | 256                         | 197    | 227                 |
| Stone, gravel, sand                      | 22 534 | 21 721         | 24 885                      | 28 414 | 27 381              |
| Peat and sphagnum                        | 399    | 259            | 336                         | 253    | 247                 |
| Other raw materials                      | 292    | 440            | 205                         | 1 149  | 563                 |
| Sea                                      |        |                |                             |        |                     |
| Sand, gravel, sand for land filling etc. | 5 870  | 5 652          | 6 999                       | 12 863 | 7 136               |

<sup>1</sup> The figure is corrected in the electronic version of the yearbook.

Source: Counties and the National Forest and Nature Agency.

## Expenditure and revenue by environmental domains. General

|   | 1996  | 1998     | 2000* |
|---|-------|----------|-------|
|   |       | DKK mio. |       |
| Current and capital expenditure, total          | 6 012 | 8 248    | 8 463 |
| Air and climate                                 | 1 866 | 2 421    | 2 066 |
| Waste water                                     | 14    | 15       | 16    |
| Waste   | 392   | 408      | 524   |
| Soil and groundwater                            | 372   | 511      | 483   |
| Biodiversity and landscape                      | 1 395 | 1 404    | 1 872 |
| Research and development                        | 721   | 896      | 806   |
| Environmental assistance                        | 576   | 1 349    | 1 392 |
| Other <sup>1</sup>                              | 676   | 1 244    | 1 303 |
| Current and capital revenue, total <sup>1</sup> | 1 863 | 2 069    | 2 224 |
| Air and climate                                 | 10    | 11       | 16    |
| Waste water                                     | 1 045 | 1 090    | 1 276 |
| Waste   | 137   | 186      | 146   |
| Soil and groundwater                            | 160   | 118      | 129   |
| Biodiversity and landscape                      | 171   | 187      | 241   |
| Research and development                        | 174   | 270      | 265   |
| Other <sup>2</sup>                              | 166   | 207      | 151   |

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

## Table 23

## Environmental expenditure and revenues. General government

|   | 1996  | 1998           | 2000* |
|---|-------|----------------|-------|
|   |       | —— DKK mio. —— |       |
| Current and capital expenditure, total          | 6 012 | 8 248          | 8 463 |
| Current expenditure, total                      | 4 428 | 6 478          | 6 468 |
| Total consumption                               | 2 231 | 2 637          | 2 879 |
| Compensation of employees                       | 955   | 1 164          | 1 209 |
| Consumption of fixed capital                    | 93    | 112            | 120   |
| Intermediate consumption                        | 1 378 | 1 641          | 1 806 |
| -Sales of goods and services                    | 195   | 281            | 255   |
| Current transfers, total                        | 2 197 | 3 841          | 3 589 |
| Capital expenditure, total                      | 1 583 | 1 770          | 1 994 |
| Fixed gross investments                         | 332   | 355            | 423   |
| Other capital expenditure                       | 1 252 | 1 415          | 1 571 |
| Current and capital revenue, total <sup>1</sup> | 1 863 | 2 069          | 2 224 |
| Capital revenue, total                          | 1 809 | 2 007          | 2 128 |
| Gross residual income                           | 93    | 112            | 120   |
| Withdrawal of income from quasi corporations    | 1 121 | 1 219          | 1 407 |
| Current transfers, total                        | 596   | 677            | 601   |
| Compulsory contributions                        | 196   | 108            | 71    |
| Other current transfers                         | 400   | 569            | 530   |
| Capital revenue, total                          | 53    | 61             | 96    |

<sup>1</sup> Excluding environmental taxes

## Expenditure and revenue by environmental domains. General

|   | 1996  | 1998     | 2000* |
|---|-------|----------|-------|
|   |       | DKK mio. |       |
| Current and capital expenditure, total          | 6 012 | 8 248    | 8 463 |
| Air and climate                                 | 1 866 | 2 421    | 2 066 |
| Waste water                                     | 14    | 15       | 16    |
| Waste   | 392   | 408      | 524   |
| Soil and groundwater                            | 372   | 511      | 483   |
| Biodiversity and landscape                      | 1 395 | 1 404    | 1 872 |
| Research and development                        | 721   | 896      | 806   |
| Environmental assistance                        | 576   | 1 349    | 1 392 |
| Other <sup>1</sup>                              | 676   | 1 244    | 1 303 |
| Current and capital revenue, total <sup>1</sup> | 1 863 | 2 069    | 2 224 |
| Air and climate                                 | 10    | 11       | 16    |
| Waste water                                     | 1 045 | 1 090    | 1 276 |
| Waste   | 137   | 186      | 146   |
| Soil and groundwater                            | 160   | 118      | 129   |
| Biodiversity and landscape                      | 171   | 187      | 241   |
| Research and development                        | 174   | 270      | 265   |
| Other <sup>2</sup>                              | 166   | 207      | 151   |

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

## Table 23

## Environmental expenditure and revenues. General government

|   | 1996  | 1998           | 2000* |
|---|-------|----------------|-------|
|   |       | —— DKK mio. —— |       |
| Current and capital expenditure, total          | 6 012 | 8 248          | 8 463 |
| Current expenditure, total                      | 4 428 | 6 478          | 6 468 |
| Total consumption                               | 2 231 | 2 637          | 2 879 |
| Compensation of employees                       | 955   | 1 164          | 1 209 |
| Consumption of fixed capital                    | 93    | 112            | 120   |
| Intermediate consumption                        | 1 378 | 1 641          | 1 806 |
| -Sales of goods and services                    | 195   | 281            | 255   |
| Current transfers, total                        | 2 197 | 3 841          | 3 589 |
| Capital expenditure, total                      | 1 583 | 1 770          | 1 994 |
| Fixed gross investments                         | 332   | 355            | 423   |
| Other capital expenditure                       | 1 252 | 1 415          | 1 571 |
| Current and capital revenue, total <sup>1</sup> | 1 863 | 2 069          | 2 224 |
| Capital revenue, total                          | 1 809 | 2 007          | 2 128 |
| Gross residual income                           | 93    | 112            | 120   |
| Withdrawal of income from quasi corporations    | 1 121 | 1 219          | 1 407 |
| Current transfers, total                        | 596   | 677            | 601   |
| Compulsory contributions                        | 196   | 108            | 71    |
| Other current transfers                         | 400   | 569            | 530   |
| Capital revenue, total                          | 53    | 61             | 96    |

<sup>1</sup> Excluding environmental taxes

### Table 24 sectors

## Expenditure and revenue by environmental domaines 1999. Sub-

|   | Central<br>government | Counties | Municipalities | General<br>government sector,<br>total <sup>1</sup> |
|---|-----------------------|----------|----------------|---|
|   |                       | DKK mic  | )              |   |
| Current and capital expenditure, total          | 7 054                 | 724      | 685            | 8 463   |
| Air and climate                                 | 2 066                 | 0        | 0              | 2 066   |
| Waste water                                     | 0                     | 0        | 16             | 16  |
| Waste   | 253                   | 0        | 271            | 524   |
| Soil and groundwater                            | 124                   | 297      | 62             | 483   |
| Biodiversity and landscape                      | 1 403                 | 290      | 179            | 1 872   |
| Research and development                        | 806                   | 0        | 0              | 806   |
| Environmental assistance                        | 1 392                 | 0        | 0              | 1 392   |
| Other <sup>2</sup>                              | 1 010                 | 136      | 158            | 1 303   |
| Current and capital revenue, total <sup>2</sup> | 692                   | 66       | 1 467          | 2 224   |
| Air and climate                                 | 16                    | 0        | 0              | 16  |
| Waste water                                     | 0                     | 0        | 1 276          | 1 276   |
| Waste   | - 8                   | 0        | 154            | 146   |
| Soil and groundwater                            | 101                   | 25       | 2              | 129   |
| Biodiversity and landscape                      | 209                   | 24       | 9              | 241   |
| Research and development                        | 265                   | 0        | 0              | 265   |
| Other <sup>3</sup>                              | 109                   | 17       | 26             | 151   |

<sup>1</sup> Unconsolidated. <sup>2</sup> Excluding enviromental taxes. <sup>3</sup> Including administration

## Table 25Environmental expenditure and revenues 1999. Subsectors

|   | Central<br>government | Counties | Municipalities | General<br>government,<br>total <sup>1</sup> |
|---|-----------------------|----------|----------------|--|
|   |                       | DKK mic  | ). ————        |  |
| Current and capital expenditure, total          | 7 054                 | 724      | 685            | 8 463  |
| Current expenditure, total                      | 5 213                 | 617      | 639            | 6 469  |
| Total consumption                               | 1 963                 | 573      | 343            | 2 879  |
| Compensation of employees                       | 1 077                 | 57       | 75             | 1 209  |
| Consumption of fixed capital                    | 84                    | 23       | 13             | 121  |
| Intermediate consumption                        | 1 030                 | 515      | 261            | 1 806  |
| -Sales of goods and services                    | 227                   | 22       | 6              | 255  |
| Current transfers, total                        | 3 249                 | 44       | 296            | 3 589  |
| Capital expenditure, total                      | 1 842                 | 106      | 46             | 1 994  |
| Fixed gross investments                         | 270                   | 106      | 46             | 423  |
| Other capital expenditure                       | 1 571                 | 0        | 0              | 1 571  |
| Current and capital revenue, total <sup>2</sup> | 692                   | 66       | 1 467          | 2 225  |
| Capital revenue, total                          | 597                   | 65       | 1 467          | 2 128  |
| Gross residual income                           | 84                    | 23       | 13             | 121  |
| Withdrawal of inc. from quasi corporations      | 0                     | 0        | 1 407          | 1 407  |
| Current transfers, total                        | 512                   | 42       | 46             | 601  |
| Compulsory contributions                        | 71                    | 0        | 0              | 71   |
| Other current transfers                         | 442                   | 42       | 46             | 530  |
| Capital revenue, total                          | 96                    | 1        | 0              | 96   |

<sup>1</sup> Unconsolidated. <sup>2</sup> Excluding environmental taxes

### Table 24 sectors

## Expenditure and revenue by environmental domaines 1999. Sub-

|   | Central<br>government | Counties | Municipalities | General<br>government sector,<br>total <sup>1</sup> |
|---|-----------------------|----------|----------------|---|
|   |                       | DKK mic  | )              |   |
| Current and capital expenditure, total          | 7 054                 | 724      | 685            | 8 463   |
| Air and climate                                 | 2 066                 | 0        | 0              | 2 066   |
| Waste water                                     | 0                     | 0        | 16             | 16  |
| Waste   | 253                   | 0        | 271            | 524   |
| Soil and groundwater                            | 124                   | 297      | 62             | 483   |
| Biodiversity and landscape                      | 1 403                 | 290      | 179            | 1 872   |
| Research and development                        | 806                   | 0        | 0              | 806   |
| Environmental assistance                        | 1 392                 | 0        | 0              | 1 392   |
| Other <sup>2</sup>                              | 1 010                 | 136      | 158            | 1 303   |
| Current and capital revenue, total <sup>2</sup> | 692                   | 66       | 1 467          | 2 224   |
| Air and climate                                 | 16                    | 0        | 0              | 16  |
| Waste water                                     | 0                     | 0        | 1 276          | 1 276   |
| Waste   | - 8                   | 0        | 154            | 146   |
| Soil and groundwater                            | 101                   | 25       | 2              | 129   |
| Biodiversity and landscape                      | 209                   | 24       | 9              | 241   |
| Research and development                        | 265                   | 0        | 0              | 265   |
| Other <sup>3</sup>                              | 109                   | 17       | 26             | 151   |

<sup>1</sup> Unconsolidated. <sup>2</sup> Excluding enviromental taxes. <sup>3</sup> Including administration

## Table 25Environmental expenditure and revenues 1999. Subsectors

|   | Central<br>government | Counties | Municipalities | General<br>government,<br>total <sup>1</sup> |
|---|-----------------------|----------|----------------|--|
|   |                       | DKK mic  | ). ————        |  |
| Current and capital expenditure, total          | 7 054                 | 724      | 685            | 8 463  |
| Current expenditure, total                      | 5 213                 | 617      | 639            | 6 469  |
| Total consumption                               | 1 963                 | 573      | 343            | 2 879  |
| Compensation of employees                       | 1 077                 | 57       | 75             | 1 209  |
| Consumption of fixed capital                    | 84                    | 23       | 13             | 121  |
| Intermediate consumption                        | 1 030                 | 515      | 261            | 1 806  |
| -Sales of goods and services                    | 227                   | 22       | 6              | 255  |
| Current transfers, total                        | 3 249                 | 44       | 296            | 3 589  |
| Capital expenditure, total                      | 1 842                 | 106      | 46             | 1 994  |
| Fixed gross investments                         | 270                   | 106      | 46             | 423  |
| Other capital expenditure                       | 1 571                 | 0        | 0              | 1 571  |
| Current and capital revenue, total <sup>2</sup> | 692                   | 66       | 1 467          | 2 225  |
| Capital revenue, total                          | 597                   | 65       | 1 467          | 2 128  |
| Gross residual income                           | 84                    | 23       | 13             | 121  |
| Withdrawal of inc. from quasi corporations      | 0                     | 0        | 1 407          | 1 407  |
| Current transfers, total                        | 512                   | 42       | 46             | 601  |
| Compulsory contributions                        | 71                    | 0        | 0              | 71   |
| Other current transfers                         | 442                   | 42       | 46             | 530  |
| Capital revenue, total                          | 96                    | 1        | 0              | 96   |

<sup>1</sup> Unconsolidated. <sup>2</sup> Excluding environmental taxes

# Convictions for offences against environmental legislation

|  | 1997 | 1998                  | 1999 |
|--|------|-----------------------|------|
| -                                      |      | number of convictions |      |
| Total                                  | 693  | 583                   | 590  |
| Environmental Protection Act           | 253  | 208                   | 209  |
| Marine Environment Act                 | 1    | -                     | 2    |
| Nature Conservation Act                | 58   | 54                    | 91   |
| Washington Convention                  | 9    | 14                    | 16   |
| Forestry Act                           | 1    | 2                     | 1    |
| Act on urban and rural areas           | 43   | 43                    | 76   |
| Act on holiday dwellings and camping   | 108  | 22                    | 5    |
| Act on chemical compounds and products | 12   | 7                     | 15   |
| Other acts relating to the environment | 208  | 233                   | 175  |

### Table 27

Denmark's fauna and flora

|                 | Total number<br>of known | Total number of 'lis | •        | Species extinct<br>in Denmark <sup>1</sup> | Species req                         | uiring special prot                | tection                      |
|-----------------|--------------------------|----------------------|----------|--|-------------------------------------|------------------------------------|------------------------------|
|                 | species                  |                      |          |  | Directly<br>endangered <sup>2</sup> | Vulnerable<br>species <sup>3</sup> | Rare<br>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.

<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. Source: National Forest and Nature Agency.

# Convictions for offences against environmental legislation

|  | 1997 | 1998                  | 1999 |
|--|------|-----------------------|------|
| -                                      |      | number of convictions |      |
| Total                                  | 693  | 583                   | 590  |
| Environmental Protection Act           | 253  | 208                   | 209  |
| Marine Environment Act                 | 1    | -                     | 2    |
| Nature Conservation Act                | 58   | 54                    | 91   |
| Washington Convention                  | 9    | 14                    | 16   |
| Forestry Act                           | 1    | 2                     | 1    |
| Act on urban and rural areas           | 43   | 43                    | 76   |
| Act on holiday dwellings and camping   | 108  | 22                    | 5    |
| Act on chemical compounds and products | 12   | 7                     | 15   |
| Other acts relating to the environment | 208  | 233                   | 175  |

### Table 27

Denmark's fauna and flora

|                 | Total number<br>of known | Total number of 'listed species' |          | Species extinct<br>in Denmark <sup>1</sup> | Species requiring special protection |                                    |                              |
|-----------------|--------------------------|----------------------------------|----------|--|--------------------------------------|------------------------------------|------------------------------|
|                 | species                  |                                  |          |  | Directly<br>endangered <sup>2</sup>  | Vulnerable<br>species <sup>3</sup> | Rare<br>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.

<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. Source: National Forest and Nature Agency.

### Breeding pairs of the 20 most common birds in Denmark 1998

| 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  | Wood pigeon         | 291 000                  | Rising      |
| 14  | Robin               | 285 000                  | Fluctuating |
| 15  | Blackcap            | 284 000                  | Rising      |
| 16  | Common linnet       | 283 000                  | Stable      |
| 17  | Swallow             | 275 000                  | Fluctuating |
| 18  | Song thrush         | 259 000                  | Stable      |
| 19  | Magpie              | 249 000                  | Rising      |
| 20  | Bluetit             | 245 000                  | Fluctuating |

Source: DOF-BirdLife Denmark - The Danish Ornithological Society: 'Fuglenes Danmark', 1998.

# Table 29

### 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.

### Breeding pairs of the 20 most common birds in Denmark 1998

| 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  | Wood pigeon         | 291 000                  | Rising      |
| 14  | Robin               | 285 000                  | Fluctuating |
| 15  | Blackcap            | 284 000                  | Rising      |
| 16  | Common linnet       | 283 000                  | Stable      |
| 17  | Swallow             | 275 000                  | Fluctuating |
| 18  | Song thrush         | 259 000                  | Stable      |
| 19  | Magpie              | 249 000                  | Rising      |
| 20  | Bluetit             | 245 000                  | Fluctuating |

Source: DOF-BirdLife Denmark - The Danish Ornithological Society: 'Fuglenes Danmark', 1998.

# Table 29

### 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 | 1997/98     | 1998/99 | 1999/2000 |
|--------------|---------|---------|-------------|---------|-----------|
|              |         |         | - thousands |         |           |
| Total        | 302.5   | 326.5   | 283.3       | 279.5   | 273,5     |
| Red deer     | 1.9     | 2.9     | 3.3         | 3.3     | 3,4       |
| Fallow deer  | 3.5     | 3.7     | 4.1         | 3.8     | 4,2       |
| Sica         | 0.4     | 0.4     | 0.7         | 0.5     | 0,4       |
| Roe deer     | 73.0    | 105.0   | 101.0       | 101.0   | 103,8     |
| Hare         | 148.0   | 162.0   | 113.0       | 106.0   | 99,2      |
| Rabbits      | 17.0    | 6.0     | 4.6         | 7.5     | 5,0       |
| Squirrel     | 0.3     | 1       | 1           | 1       | 1         |
| Foxes        | 50.0    | 38.0    | 42.0        | 45.0    | 43,9      |
| Badger       | 1.0     | 1       | 1           | 1       | 1         |
| Polecat      | 0.9     | 0.7     | 1.8         | 1.1     | 1,1       |
| Mink         | 2.8     | 4.6     | 8.0         | 6.7     | 8,0       |
| Stone marten | 3.7     | 3.2     | 4.8         | 4.6     | 4,5       |

Note. Number of people holding hunting licences in the 1999/2000 are 170,800.

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

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

# Table 31Animals killed, birds

|                             | 1990/91   | 1995/96 | 1997/98 | 1998/99 | 1999/2000 |  |
|-----------------------------|-----------|---------|---------|---------|-----------|--|
|                             | thousands |         |         |         |           |  |
| Total                       | 2 866     | 2 585   | 2 281   | 2 246   | 2 458     |  |
| Grey partridge              | 85        | 94      | 65      | 57      | 53        |  |
| Pheasant                    | 900       | 812     | 705     | 742     | 764       |  |
| Heron                       | 1         | 1       | 2       | 2       | 2         |  |
| Woodcock                    | 27        | 27      | 22      | 25      | 24        |  |
| Snipe                       | 32        | 24      | 20      | 18      | 22        |  |
| Mallard                     | 696       | 768     | 643     | 670     | 731       |  |
| Other surface-feeding ducks | 152       | 155     | 94      | 89      | 99        |  |
| Eider duck                  | 135       | 114     | 106     | 72      | 95        |  |
| Other diving duck           | 58        | 45      | 36      | 34      | 33        |  |
| Goose                       | 14        | 16      | 15      | 18      | 18        |  |
| Common coot                 | 24        | 18      | 13      | 14      | 20        |  |
| Gull                        | 99        | 47      | 41      | 38      | 36        |  |
| Wood pigeon                 | 351       | 262     | 288     | 239     | 300       |  |
| Eurasian collared dove      | 12        | 10      | 10      | 8       | 9         |  |
| Rook                        | 92        | 81      | 84      | 92      | 102       |  |
| Crow                        | 104       | 69      | 81      | 75      | 99        |  |
| Black-billed magpie         | 60        | 38      | 43      | 43      | 45        |  |
| Cormorant                   |           | 3       | 4       | 4       | 4         |  |
| Starling                    |           | 1       | 7       | 7       | 2         |  |

Note. Number of people holding hunting licences in the 1999/2000 are 170,800.

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

### Animals killed, mammals

|              | 1990/91 | 1995/96 | 1997/98     | 1998/99 | 1999/2000 |
|--------------|---------|---------|-------------|---------|-----------|
|              |         |         | - thousands |         |           |
| Total        | 302.5   | 326.5   | 283.3       | 279.5   | 273,5     |
| Red deer     | 1.9     | 2.9     | 3.3         | 3.3     | 3,4       |
| Fallow deer  | 3.5     | 3.7     | 4.1         | 3.8     | 4,2       |
| Sica         | 0.4     | 0.4     | 0.7         | 0.5     | 0,4       |
| Roe deer     | 73.0    | 105.0   | 101.0       | 101.0   | 103,8     |
| Hare         | 148.0   | 162.0   | 113.0       | 106.0   | 99,2      |
| Rabbits      | 17.0    | 6.0     | 4.6         | 7.5     | 5,0       |
| Squirrel     | 0.3     | 1       | 1           | 1       | 1         |
| Foxes        | 50.0    | 38.0    | 42.0        | 45.0    | 43,9      |
| Badger       | 1.0     | 1       | 1           | 1       | 1         |
| Polecat      | 0.9     | 0.7     | 1.8         | 1.1     | 1,1       |
| Mink         | 2.8     | 4.6     | 8.0         | 6.7     | 8,0       |
| Stone marten | 3.7     | 3.2     | 4.8         | 4.6     | 4,5       |

Note. Number of people holding hunting licences in the 1999/2000 are 170,800.

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

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

# Table 31Animals killed, birds

|                             | 1990/91   | 1995/96 | 1997/98 | 1998/99 | 1999/2000 |  |
|-----------------------------|-----------|---------|---------|---------|-----------|--|
|                             | thousands |         |         |         |           |  |
| Total                       | 2 866     | 2 585   | 2 281   | 2 246   | 2 458     |  |
| Grey partridge              | 85        | 94      | 65      | 57      | 53        |  |
| Pheasant                    | 900       | 812     | 705     | 742     | 764       |  |
| Heron                       | 1         | 1       | 2       | 2       | 2         |  |
| Woodcock                    | 27        | 27      | 22      | 25      | 24        |  |
| Snipe                       | 32        | 24      | 20      | 18      | 22        |  |
| Mallard                     | 696       | 768     | 643     | 670     | 731       |  |
| Other surface-feeding ducks | 152       | 155     | 94      | 89      | 99        |  |
| Eider duck                  | 135       | 114     | 106     | 72      | 95        |  |
| Other diving duck           | 58        | 45      | 36      | 34      | 33        |  |
| Goose                       | 14        | 16      | 15      | 18      | 18        |  |
| Common coot                 | 24        | 18      | 13      | 14      | 20        |  |
| Gull                        | 99        | 47      | 41      | 38      | 36        |  |
| Wood pigeon                 | 351       | 262     | 288     | 239     | 300       |  |
| Eurasian collared dove      | 12        | 10      | 10      | 8       | 9         |  |
| Rook                        | 92        | 81      | 84      | 92      | 102       |  |
| Crow                        | 104       | 69      | 81      | 75      | 99        |  |
| Black-billed magpie         | 60        | 38      | 43      | 43      | 45        |  |
| Cormorant                   |           | 3       | 4       | 4       | 4         |  |
| Starling                    |           | 1       | 7       | 7       | 2         |  |

Note. Number of people holding hunting licences in the 1999/2000 are 170,800.

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

# Energy balance sheet for Denmark 1999\*

|   | Crude oil<br>and semi-<br>manufac-<br>tured oil | Coal, coke, Oil<br>etc. | products 1            | Natural gas              | Other gas     | Renewable<br>energy<br>resources | Electricity           | District<br>heating |
|---|---|-------------------------|-----------------------|--------------------------|---------------|----------------------------------|-----------------------|---------------------|
|   | to  | ons in thousands -      |                       | 1 000<br>Nm <sup>3</sup> | 1 000<br>tons | LΊ                               | GWh                   | τJ                  |
| Production<br>Imports   | 14 941<br>5 296                                 | -<br>7 179              | 7 962<br>5 439        | 14 038<br>-              | 562<br>21     | 60 726<br>1 690                  | 36 639<br>4 963       | 123 113             |
| Stock   | -70   | -967                    | 11                    | -317                     | -15           | -                                | -                     | -                   |
| Waste and cable losses  | 112   | 70                      | 87                    | 201                      | 6             | 426                              | 1 888                 | 24 652              |
| Exports   | 9 018   | 202                     | 4 743                 | 2 747                    | 107           | 24                               | 7 275                 | -                   |
| Total domestic consumption  | 11 178  | 7 875                   | 8 560                 | 11 407                   | 486           | 61 965                           | 32 439                | 98 461              |
| Households  | -   | 7                       | 2 778                 | 723                      | 56            | 9 289                            | 10 191                | 62 660              |
| Agriculture, fishing and quarrying  | -   | 71                      | 742                   | 768                      | 6             | 2 498                            | 2 081                 | 1 892               |
| Agriculture, horticulture, and forestry   | -   | 35                      | 487                   | 151                      | 5             | 2 498                            | 1 937                 | 1 885               |
| Fishing, etc.   | -   | -                       | 223                   | -                        | 0             | -                                | 59                    | -                   |
| Quarrying and mining  | -   | 36                      | 32                    | 617                      | 0             | -                                | 85                    | 7                   |
| Manufacturing   | 11 178  | 411                     | 774                   | 1 052                    | 398           | 4 970                            | 9 704                 | 6 639               |
| Mfr. of food, beverages and tobacco   | -   | 95                      | 221                   | 382                      | 6             | 187                              | 2 175                 | 927                 |
| Mfr. of textile, wearing apparel and leather  | -   | -                       | 9                     | 37                       | 1             | 2                                | 211                   | 326                 |
| Mfr. of wood, paper, printing and publishing  | -   | -                       | 40                    | 98                       | 3             | 3 837                            | 1 091                 | 1 930               |
| Mfr. of refined petroleum products, chemicals<br>and plastic  | 11 178  | 20                      | 79                    | 177                      | 356           | 13                               | 2 223                 | 1 531               |
| Mfr. of non-metallic mineral, etc.  | -   | 295                     | 287                   | 160                      | 18            | 18                               | 863                   | 104                 |
| Mfr. of iron and basis metals   | -   | 1                       | 118                   | 181                      | 13            | 150                              | 2 658                 | 1 600               |
| Mfr. of furniture and manufacturing n.e.s.  | -   | -                       | 20                    | 18                       | 1             | 764                              | 483                   | 221                 |
| Energy and water supply   | -   | 7 385                   | 1 504                 | 8 581                    | 0             | 45 207                           | 472                   | 17                  |
| Construction  | -   | -                       | 343                   | 5                        | 10            | -                                | 256                   | -                   |
| Wholesale and retail trade, hotels and res-   |   |                         |                       |                          |               |                                  |                       |                     |
| taurants, etc.  | -   | -                       | 358                   | 99                       | 5             | -                                | 3 968                 | 9 710               |
| Sale and repair of motor vehicles, gas stations, etc.<br>Wholesale and commission sale, except of motor | -   | -                       | 63                    | 12                       | 1             | -                                | 348                   | 1 181               |
| vehicles  | -   | -                       | 208                   | 41                       | 1             | -                                | 1 406                 | 4 063               |
| Retail trade and repair work, except motor vehicles   | -   | -                       | 69                    | 25                       | 1             | -                                | 1 599                 | 2 406               |
| Hotels and restaurants, etc.  | -   | -                       | 17                    | 21                       | 3             | -                                | 615                   | 2 059               |
| Transport, postal services and telecommu-   |   |                         | 4 754                 | 44                       | 2             |                                  | 4 520                 | 4 4 2 2             |
| nication  | -   | -                       | <b>1 751</b><br>1 723 | 11<br>5                  | <b>2</b><br>2 | -                                | <b>1 520</b><br>1 237 | <b>1 123</b><br>523 |
| Transport<br>Post and telecommunication   | _   | _                       | 28                    | 6                        | 2             | _                                | 283                   | 600                 |
| Financial intermediation, etc. business activi-   |   |                         | 20                    | 0                        |               |                                  | 205                   | 000                 |
| ties  | -   | -                       | 90                    | 39                       | 0             | -                                | 899                   | 3 855               |
| Financial intermediation and insurance, etc.  | -   | -                       | 6                     | 9                        | -             | -                                | 221                   | 858                 |
| Letting and sale of real estate   | -   | -                       | 25                    | 6                        | 0             | -                                | 117                   | 617                 |
| Business activities, etc.   | -   | -                       | 59                    | 24                       | 0             | -                                | 560                   | 2 380               |
| Public and personal services  | -   | -                       | 221                   | 128                      | 9             | -                                | 3 349                 | 12 565              |
| Public administration and defence, etc.   | -   | -                       | 104                   | 17                       | 3             | -                                | 416                   | 1 683               |
| Education   | -   | -                       | 25                    | 29                       | 3             | -                                | 744                   | 2 882               |
| Human health activities   | -   | -                       | 11                    | 19                       | 1             | -                                | 482                   | 1 867               |
| Social institutions, etc.   | -   | -                       | 22                    | 26                       | 0             | -                                | 661<br>1.046          | 2 560               |
| Refuse disposal, organisations, entertainment, etc.   | -   | -                       | 59                    | 36                       | 2             | -                                | 1 046                 | 3 573               |

### **Energy consumption in Denmark**

|   | 1990                 | 1995                   | 1999   |  |
|---|----------------------|------------------------|--------|--|
| Energy consumption, gross —                   | tł                   | nousand tons —         |        |  |
| Hard coal etc.                                | 9 995                | 10 987                 | 7 826  |  |
| Coke and furnace coke                         | 45                   | 51                     | 46     |  |
| Brown coal etc.                               | 6                    | 9                      | 3      |  |
| Waste   | 1 833                | 2 314                  | 2 802  |  |
| Fuel wood, etc.                               | 1 110                | 1 255                  | 1 240  |  |
| Straw   | 861                  | 843                    | 946    |  |
| Kerosene                                      | 118                  | 14                     | 6      |  |
| Jet fuel                                      | 666                  | 657                    | 675    |  |
| Motor gasoline                                | 1 571                | 1 887                  | 2 093  |  |
| Other petrol and oil products                 | 19                   | 750                    | 1 258  |  |
| Gas/Diesel oil                                | 3 906                | 3 897                  | 3 665  |  |
| Fuel oil                                      | 947                  | 998                    | 643    |  |
| Petroleum-coke                                | 182                  | 176                    | 216    |  |
| Liquid gas (LPG)                              | 100                  | 87                     | 91     |  |
| Refinery gas                                  | 265                  | 370                    | 353    |  |
| -   | mio. Nm <sup>3</sup> |                        |        |  |
| Natural gas <sup>3</sup>                      | 1 703                | 3 009                  | 4 201  |  |
| -   | thousand GJ          |                        |        |  |
| Biogas  | 587                  | 1 277                  | 1 344  |  |
| Wind energy and water power                   | 2 298                | 4 347                  | 11 018 |  |
| Electricity supply –                          |                      | mio. KWh               |        |  |
| Electricity sold, public works                | 28 548               | 31 470                 | 32 658 |  |
| Dwellings                                     | 9 015                | 9 549                  | 9 665  |  |
| Agriculture, etc.                             | 2 349                | 2 544                  | 2 555  |  |
| Manufacturing                                 | 8 112                | 9 451                  | 9 748  |  |
| Other industries, public administration, etc. | 9 068                | 9 892                  | 10 638 |  |
| Crude oil and natural gas –                   | tł                   | nousand tons           |        |  |
| Crude oil, Danish production                  | 5 985                | 9 062                  | 14 584 |  |
|   |                      | mio. Nm <sup>3</sup> — |        |  |
| Natural gas, Danish production                | 3 081                | 5 009                  | 7 355  |  |

Note. Gross energy consumption is defined as the amount of energy available after conversion in refineries and before conversion at electricity, gas, or district heating power stations. This definition is different from the 'Manufacturers' investment by sector and county', which does not include energy converted in refineries.

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

Source: Danish Energy Agency and Association of Danish Electric Utilities.

# Production of renewable energy

|                              | 1990   | 1995    | 1999   |
|------------------------------|--------|---------|--------|
|                              |        | TJ      |        |
| Total production             | 50 857 | 64 741  | 80 972 |
| Solar heat                   | 100    | 212     | 317    |
| Wind power                   | 2 197  | 4 238   | 10 906 |
| Water power                  | 101    | 109     | 115    |
| Straw                        | 12 481 | 12 823  | 13 706 |
| Wood chips                   | 1 724  | 2 340   | 2 649  |
| Wood                         | 7 019  | 9 1 9 1 | 8 339  |
| Wood pills                   | 1 575  | 2 138   | 2 368  |
| Wood waste                   | 6 183  | 5 729   | 7 128  |
| Biogas                       | 752    | 1 754   | 2 656  |
| Waste combustion             | 15 471 | 22 878  | 29 103 |
| Fish oil                     | 744    | 251     | 27     |
| Geothermal heat <sup>1</sup> | 2 510  | 3 078   | 3 658  |

<sup>1</sup> Heat pumps and geothermy.

Source: Danish Energy Agency.

# Manufacturers' energy consumption 1999

|                        |   | Solid fuel     | Liquid<br>fuel      | Gas                   | Electricity           | District<br>heating |
|------------------------|---|----------------|---------------------|-----------------------|-----------------------|---------------------|
|                        |   |                |                     | - 1 000 GJ –          |                       |                     |
|                        | Manufacturing, total <sup>1,2</sup>   | 17 130         | 22 256              | 59 866                | 30 678                | 5 333               |
| 14009                  | Extraction of gravel, clay, stone and salt, etc.  | 944            | 884                 | 1 681                 | 229                   | 1                   |
| 15009                  | Mfr. of food, beverages and tobacco <sup>2</sup>  | 2 722          | 7 105               | 14 891                | 6 891                 | 872                 |
| 151000                 | Mfr. of meat and meat products  | 0              | 1 267               | 2 602                 | 1 996                 | 114                 |
| 155000                 | Mfr. of dairy products  | 0              | 676                 | 4 152                 | 1 338                 | 13                  |
| 158909                 | Mfr. of other food products   | 2 721          | 4 931               | 5 424                 | 2 914                 | 673<br>62           |
| 159000<br>160000       | Mfr. of beverages<br>Mfr. of tobacco and related products                                   | 0<br>0         | 215<br>16           | 2 608<br>105          | 568<br>75             | 9                   |
| 17009                  | Mfr. of textiles, clothing and leather  | 2              | 80                  | 1 290                 | 598                   | 173                 |
| 170000                 | Mfr. of textiles  | 1              | 62                  | 1 1 9 2               | 513                   | 144                 |
| 180000<br>190000       | Mfr. of clothing<br>Mfr. of leather and footwear  | 1<br>0         | 10<br>8             | 56<br>42              | 52<br>33              | 27<br>2             |
| 20000                  | Mfr. of wood and wood products  | <b>3 929</b>   | 。<br>625            | 42<br>195             | 55<br>1 050           | 2<br>14             |
| 20000                  | Mfr. of paper; printing and publishing  | 3 929          | 253                 | 3 424                 | 2 036                 | 1 533               |
| 21009                  | Mfr. of pulp, paper and paper products  | 32             | 217                 | 3 424<br>3 146        | 1 241                 | 1 231               |
| 221200                 | Publishing of newspapers  | 0              | 0                   | 11                    | 172                   | 113                 |
| 221309                 | Publishing activities excl. newspapers  | 0              | 5                   | 72                    | 134                   | 89                  |
| 222009                 | Printing etc.   | 5              | 31                  | 195                   | 490                   | 100                 |
| 23000                  | Mfr. of refined petroleum, etc.   | 0              | 1 148               | 18 344                | 990                   | 298                 |
| <b>24000</b><br>241009 | Mfr. of chemicals<br>Mfr. of chemical raw materials   | 538<br>1       | <b>1 148</b><br>354 | <b>5 300</b><br>3 682 | <b>4 166</b><br>2 018 | <b>1 026</b><br>312 |
| 243009                 | Mfr. of paints, soap, cosmetics, etc.   | 537            | 62                  | 877                   | 919                   | 68                  |
| 244000                 | Mfr. of pharmaceuticals   | 0              | 732                 | 741                   | 1 229                 | 646                 |
| 25000                  | Rubber and plastic products   | 4              | 279                 | 1 291                 | 2 176                 | 70                  |
| 26000                  | Mfr. of non-metallic mineral, etc.  | 7 949          | 8 873               | 6 593                 | 2 796                 | 57                  |
| 261009<br>263009       | Mfr. of glass and ceramic goods, etc.<br>Mfr. of bricks and concrete, etc.                  | 0<br>7 949     | 47<br>8 827         | 1 636<br>4 957        | 578<br>2 218          | 17<br>40            |
| 203003<br>27009        | Mfr. and processing of basic metal  | 93             | 620                 | 3 449                 | 4 309                 | 276                 |
| 270000                 | Mfr. of basic metal   | 26             | 127                 | 2 089                 | 2 761                 | 84                  |
| 281009                 | Mfr. of construction materials of metal   | 51             | 300                 | 445                   | 713                   | 131                 |
| 286009                 | Mfr. of hand tools, packaging of metal, etc.  | 16             | 193                 | 915                   | 835                   | 61                  |
| <b>29000</b><br>291000 | Mfr. of machinery and equipment<br>Mfr. of marine engines, compressors, etc.                | <b>1</b><br>0  | <b>697</b><br>168   | <b>1 680</b><br>741   | <b>2 103</b><br>1 003 | <b>478</b><br>215   |
| 291000                 | Mfr. of other general purpose machinery   | 1              | 276                 | 300                   | 434                   | 80                  |
| 293000                 | Mfr. of agricultural and forestry machinery   | 0              | 110                 | 282                   | 174                   | 31                  |
| 294009                 | Mfr. of machinery for industries, etc.  | 0              | 118                 | 196                   | 335                   | 112                 |
| 297000                 | Mfr. of domestic appliances   | 0              | 24                  | 161                   | 157                   | 40                  |
| <b>30009</b><br>300009 | <b>Mfr. of electrical and optical equipment</b><br>Mfr. of computers, electric motors, etc. | <b>42</b><br>0 | <b>194</b><br>79    | <b>562</b><br>228     | <b>1 203</b><br>502   | <b>306</b><br>183   |
| 320000                 | Mfr. of radios and communication  | Ŭ              | ,,,                 | 220                   | 502                   | 105                 |
| 220000                 | equipment, etc.   | 41             | 76                  | 237                   | 387                   | 39                  |
| 330000                 | Mfr. of medical and optical instruments, etc.   | 0              | 38                  | 97                    | 314                   | 84                  |
| <b>35009</b><br>351000 | Mfr. of transport equipment<br>Building and repair of ships, etc.                           | <b>2</b><br>2  | <b>139</b><br>50    | <b>736</b><br>336     | <b>806</b><br>396     | <b>108</b><br>39    |
| 352009                 | Mfr. of transport equipment, excl. ships  | 0              | 89                  | 400                   | 410                   | 69                  |
| 36000                  | Mfr. of furniture and manufacturing   |                |                     |                       |                       |                     |
| 264000                 | n.e.s.  | 866            | 212                 | 429                   | 1 325                 | 122                 |
| 361000<br>365009       | Mfr. of furniture<br>Mfr. of toys, gold and silver articles, etc.                           | 863<br>3       | 191<br>21           | 322<br>107            | 1 016<br>309          | 61<br>60            |
| 303003                 | inition toys, gold and silver altitles, etc.  | J              | 21                  | 107                   | 203                   | 00                  |

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

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