# **Geography and climate**



## Geography

#### The long Danish coastline

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

One characteristic of Denmark's geography is the many islands, a total of 407. The largest islands are, by order of mention, Sjælland, Vendsyssel-Thy, Fyn, Lolland and Bornholm. Jutland (including Vendsyssel-Thy) account for 70 per cent of Denmark's total area.

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

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

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



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

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

## Climate

## It rains or snows every second day

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

### Snow seven days a month during the wintertime

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





Source: www.dmi.dk

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

In a year, the average temperature generally varies from 0 °C in January to 16 °C in August. Great variations occur in relation to the average. The coldest day in more than 100 years was a January day in 1982 with temperatures of -31 °C, and the warmest day was an August day in 1975 with temperatures of 36 °C.

#### "... and it will be overcast again today"

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

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

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

Table 1	Area, populati	ion and coas	tline			
	Land and inland water area km <sup>2</sup>	Population 1 January 2010	Density of population per km <sup>2</sup>	Number of islands	Inland water area 1959 km <sup>2</sup>	Coastline 1959 km
All Denmark	43 098.31	5 534 738	128.4	407	700	7 314
Provinces						
Sjælland	7 450.59	2 348 684	315.2	99	184	1 735
Lolland-Falster	1 795.34	109 896	61.2	45	24	587
Bornholm <sup>1</sup>	588.55	42 255	71.8	9	3	141
Fyn	3 485.84	484 862	139.1	100	26	1 1 3 0
The Islands, total	13 320.32	2 985 697	224.1	253	237	3 593
Jylland	29 777.99	2 549 041	85.6	154	463	3 721
Regions						
Region Hovedstaden	2 561.27	1 680 271	656.0	28	101	602
Copenhagen City	180.11	678 873	3 769.2	5	18	213
Copenhagen Suburban	340.08	512 692	1 507.6			
Nordsjælland	1 452.53	446 451	307.4	14	80	248
Bornholm <sup>1</sup>	588.55	42 255	71.8	9	3	141
Region Sjælland	7 273.21	820 564	112.8	114	109	1 861
Østsjælland	807.59	234 574	290.5	18	7	154
Vest- og Sydsjælland	6 465.62	585 990	90.6	96	102	1 707
Region Syddanmark	12 206.17	1 200 277	98.3	120		
Fyn	3 485.84	484 862	139.1	100	26	1 1 3 0
Sydjylland	8 720.33	715 415	82.0	20		2
Region Midtjylland	13 124.34	1 253 998	95.5	79		
Østjylland	5 907.10	826 923	140.0	48		
Vestjylland	7 217.24	427 075	59.2	31		
Region Nordjylland	7 933.32	579 628	73.1	56		
Faroe Islands	1 398.85	<b>48 778</b> <sup>3</sup>	34.9	<b>17</b> <sup>4</sup>		1 117 <sup>5</sup>
Greenland	<b>410 449.00</b> <sup>6</sup>	<b>56 194</b> <sup>3</sup>	0.1			

Note: Due to different compilation methods figures deviate from figures in table 4. The most southern point in Denmark is Gedserodde on Falster, the most northerly point is near Skagen, the most westerly point is Blåvandshuk, and the most easterly point is Christiansø (Østerskær).

Source: National Survey and Cadastra www.statbank.dk/folk1 and are207

<sup>1</sup> Including Christiansø. <sup>2</sup> The border with Germany was measured as 67.7 km. In length. <sup>3</sup> 1 January 2009. <sup>4</sup> Inhabited islands. <sup>5</sup> Measured in 1955. <sup>6</sup> Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km<sup>2</sup>, of which 81 per cent is covered by inland ice.

Table 2	Administrative divi	sion of Denma	rk. 2010				
	Municipalities	Parishes	Customs	Constituencies <sup>2</sup>			
			and tax regions <sup>1</sup>	Counties and large constituencies	Constituencies		
Total	98	2 116	30	10	92		
The Islands	56	887	16	6	48		
Region Hovedstaden	29	245	7	4	28		
København by	4	81	1	1	12		
Københavns omegn	13	56	2	1	8		
Nordsjælland	11	86	3	1	6		
Bornholm	1	22	1	1	2		
Region Sjælland	17	417	6	1	12		
Østsjælland	5	60	2	ı	3		
Vest- og Sydsjælland	12	357	4	} 1	9		
Region Syddanmark	22	499	7	2	21		
Fyn	10	225	3	1	8		
Jutland	42	1 229	14	4	44		
Region Syddanmark (continued)							
Sydjylland	12	274	4	1	13		
Region Midtjylland	19	615	7	2	22		
Østjylland	11	356	4	1	11		
Vestjylland	8	259	3	1	11		
Nordjylland	11	340	3	1	9		

<sup>1</sup> Customs centres as well as assessment and valuation districts are also included. <sup>2</sup> In accordance with Act no. 1292 of 8 December 2006 on elections to the Danish Parliament.

💻 www.statbank.dk/02

Tab	le 3	Are	a and pop	oulation. F	Regio	ns and inhabited is	slands		
Muni cipa-	-	Area in ha	Population	1 January	Muni cipa-		Area in ha	Population	1 January
lity code		2009	2008	2009	lity code		2009	2008	2009
	All Denmark	4 309 831	5 475 791	5 511 451		Funen and its islands	348 584	<b>482 410</b> 451 394	484 346
	Zealand and				430	Funen Avernakø	298 456 586	451 594	453 700 111
	its islands	745 059	2 310 624	2 329 910	492	Birkholm	92	10	10
	Zealand	703 130	2 130 970	2 147 281	430	Bjørnø	150	36	32
330	Agersø	684	2 130 370	2147 201	420	Bågø	623	36	37
550	Amager	9 629	166 030	169 157	479	Drejø	426	71	69
390	Bogø	1 307	1 124	1 112	410	Fænø	394	3	2
370	Enø	340	275	281	479	Hjortø	90	12	13
350	Eskilsø	139	2	2	482	Langeland	28 384	13 723	13 340
390	Farø	93	5	5	430	Lyø	605	116	109
370	Gavnø	575	35	40	482	Siø	131	18	17
330	Glænø	559	62	63	479	Skarø	197	40	39
211	Hesselø	71	0	0	482	Strynø	488	216	206
390	Langø	127	4	3	479	Thurø	753	3 728	3 742
390	Masnedø	168	122	135	440	Tornø	21	4	4
390	Møn	21 775	10 200	10 074	479	Tåsinge	6 979	6 188	6 217
326	Nekselø	223	21	21	480	Æbelø	232	2	-
390	Nyord	499	45	41	492	Ærø	8 807	6 702	6 698
330	Omø	452	177	169		82 named islands	1 170	•	•
316	Orø	1 502	890	906					
185	Saltholm	1 599	5	5		Jutland	2 977 799	2 528 129	2 543 568
326	Sejerø	1 237	397	373		Jutland peninsular	2 387 430	2 151 667	2 167 177
101	Slotsholmen	21	21	19	772	Vendsyssel-Thy	468 573	289 630	289 849
101 390	Trekroner Tærø	2 175	2 4	1	773 727	Agerø Alrø	385 751	38 149	35 156
290	77 named islands	752			540	Allø	31 222	52 109	51 892
	// Hallieu Islalius	752	•	•	707	Anholt	2 237	164	167
					580	Barsø	2 237	23	24
	Lolland, Falster				851	Egholm	600	55	52
	and their islands	179 534	111 715	110 968	615	Endelave	1 308	174	168
	Lolland	124 286	67 306	66 655	563	Fanø	5 578	3192	3 207
376	Falster	51 376	43 640	43 530	779	Fur	2 229	872	865
360	Askø	282	47	46	813	Hirsholm	17	4	4
360	Fejø	1 600	557	574	766	Hjarnø	321	106	107
360	Femø	1 1 38	150	147	671	Jegindø	791	524	500
360	Lilleø	86	6	5	580	Kalvø	18	8	7
360	Skalø	106	9	11	820	Livø	331	10	9
360	37 named islands	660	•	•	825	Læsø	10 122	2 003	1 993
					561	Mandø	763	46	44
					773	Mors	36 331	22 091	22 098
					550	Rømø	12 886	689	715
	Bornholm and				741	Samsø	11 206	4 085	4 003
	its islands	58 855	42 913	42 659	580	Store Okseø	11	3	3
400	Bornholm	58 815	42 817	42 563	727	Tunø	352	119	118
411	Christiansø <sup>1</sup>	25	} 96	96	671	Venø	646	201	
411	Frederiksø <sup>1</sup>	4	] 50	50	510	Årø	566	167	
411	6 named islands	11	•	•		128 named islands	2 859	•	•

<sup>1</sup> Not included in the division of municipalities, administered by the Ministry of Defence.

💻 www.statbank.dk/bef4

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

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

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

Source: National Environmental Research Institute

Table 5 Denmark's largest lakes									
Lake's name	Location	1999-2002 2004-2008		Lake's name	Location	1999-2002 20	02 2004-2008		
		km <sup>2</sup> ·				km <sup>2</sup> ·			
Arresø	Sjælland	39.5	39.6	Søndersø	Lolland	8.4	8.0		
Esrum Lake	Sjælland	17.4	17.4	Tystrup Lake	Sjælland	6.7	6.7		
Mossø	Østjylland	16.6	16.6	Julsø	Østjylland	5.8	5.8		
Stadil Fjord <sup>1</sup>	Vestjylland	17.3	16.2	Tømmerby Fjord	Nordiylland	6.0	5.7		
Saltbæk Vig <sup>1</sup>	Sjælland	16.1	15.9	Ulvedybet	Nordjylland	5.9	5.5		
Tissø	Siælland	12.7	12.5	Tange Lake	Vestivlland	5.5	5.5		
Furesø	Siælland	9.3	9.4	Lund Fjord	Nordjylland	5.1	5.1		
Skanderborg Lake	Østjylland	8.6	8.6	,					

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

💻 www.kms.dk

Table 6	Ν	Лeteo	rologi	cal con	dition	S							
	Jan.	Feb.	Marts	April	Maj	Juni	Juli	Aug.	Sept.	Okt.	Nov.	Dec.	Året
Mean temperature							_ °C						
Normal (1961-1990)	0.0	0.0	2.1	5.7	10.8	14.3	15.6	15.7	12.7	9.1	4.7	1.6	7.7
2009	1.0	0.8	4.0	9.4	11.5	13.9	17.2	17.4	14.1	7.9	7.3	0.8	8.8
Average daily temperature													
Normal (1961-1990)	2.0	2.2	4.9	9.6	15.0	18.7	19.8	20.0	16.4	12.1	7.0	3.7	10.9
2009	2.7	2.6	6.6	14.7	15.7	18.2	21.6	21.4	17.9	10.7	8.9	2.6	12.0
Average nightly temperature													
Normal (1961-1990)	-2.9	-2.8	-0.8	2.1	6.5	9.9	11.5	11.3	9.1	6.1	2.3	-0.7	4.3
2009	-1.1	-1.5	1.3	4.5	7.2	9.4	13.0	13.6	10.4	4.9	5.5	-1.4	5.5
Maximum temperature													
1874-2009 Temp.	12.4	15.8	22.2	28.6	32.8	35.5	35.3	36.4	32.3	24.1	18.5	14.5	36.4
Measured during the years	2005	1990	1990	1993	1892	1947	1941	<i>1975</i>	1906	1978	1968	1953	1975
2009	7.3	8.7	13.7	23.8	26.0	27.9	29.9	32.7	28.1	17.2	14.2	9.7	32.7
Minimum temperature													
1874-2009 Temp.	-31.2	-29.0	-27.0	-19.0	-8.0	-3.5	-0.9	-2.0	-5.6	-11.9	-21.3	-25.6	-31.2
Measured during the years 2009	1 <i>982</i>	<i>1942</i>	<i>1888</i>	<i>1922</i> -2.9	<i>1900</i> -0.1	<i>1936</i> 0.2	<i>1903</i> 5.7	<i>1885</i> 7.1	<i>1886</i> 0.4	1880	<i>1973</i>	<i>1981</i>	1 <i>982</i>
2009	-13.0	-13.9	-8.0	-2.9	-0.1				0.4	-4.9	-3.0	-19.0	-19.0
Degree-days							egree-days						
Normal (1961-1990)	522	491	461	337	198	84	43	47	128	243	361	469	3 382
2009	497	453	403	227	170	106	21	19	90	282	290	501	3 061
Precipitation							– mm. —						
Normal (1961-1990)	57	38	46	41	48	55	66	67	73	76	79	68	712
2009	41	34	53	10	56	63	86	68	45	79	126	71	732
Bright sunshine, all DK							– hours —						
Normal (1961-1990)	43	69	110	162	209	209	196	186	128	87	54	43	1 495
2009	39	56	106	272	274	280	220	200	160	114	26	46	1 793
Summer days (max. >25°)							– days —						
Normal (1961-1990)	0.0	0.0	0.0	0.0	0.2	1.9	2.6	2.3	0.1	0.0	0.0	0.0	7.2
2009	0.0	0.0	0.0	0.0	<	1.8	4.1	4.1	0.6	0.0	0.0	0.0	10.7
Frost days (min. <0°)													
Normal (1961-1990)	19.0	19.0	15.0	6.6	0.7	<	0.0	0.0	0.2	1.8	7.3	15.0	84.0
2009	17.8	19.5	6.8	1.2	0.0	0.0	0.0	0.0	0.0	2.3	0.8	18.6	66.9
Ice days (max. <0°)													
Normal (1961-1990)	8.6	7.5	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.0	23.0
2009	3.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	11.5
Precipitation days (R <sup>3</sup> 0.1 mm		42.0		42.0	42.0	42.0	42.0	42.0	45.0	46.0	40.0	47.0	474.0
Normal (1961-1990)	17.0	13.0	14.0	12.0	12.0	12.0	13.0	13.0	15.0	16.0	18.0	17.0	171.0
2009	12.8	16.1	16.0	4.3	14.2	11.0	19.3	15.9	11.8	17.4	27.2	17.9	183.9
Days with snow				<i>c</i> -	<i>.</i> -			<i>c</i> -	<i>c</i> -				
Normal (1961-1990)	7.6	6.4	5.3	2.6	0.2	0.0	0.0	0.0	0.0	0.1	2.3	5.8	30.0
2009	3.1	9.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	6.1	20.0

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

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

Source: Danmarks Meteorologiske Institut

💻 www.dmi.dk