

Forestry Commission

Forestry Statistics 2006

Woodland Areas and Planting

This section contains information about the extent of woodland in the United Kingdom and compares the United Kingdom with other countries.

Area of woodland: 2006

The area of woodland in the UK at 31 March 2006 is 2.8 million hectares. Of this total, 1.3 million hectares (47%) is in Scotland, 1.1 million hectares (40%) is in England, 0.3 million hectares (10%) is in Wales and 0.1 million hectares (3%) is in Northern Ireland.

Table 1.1 Area of woodland by ownership and forest type at 31 March 2006

		thousands of hectares		
		Conifers	Broadleaves ¹	Total
United Kingdom	FC/FS woodland	735	97	832
	Non-FC/FS woodland	907	1 090	1 997
	Total	1 642	1 187	2 829
England	FC woodland	151	53	204
	Non-FC woodland ²	217	701	918
	Total	368	754	1 121
Scotland	FC woodland	433	27	460
	Non-FC woodland ²	615	261	876
	Total	1 049	288	1 337
Wales	FC woodland	95	12	108
	Non-FC woodland ²	64	113	178
	Total	160	126	285
Northern Ireland	FS woodland	56	5	61
	Non-FS woodland	10	15	25
	Total	66	20	86

Source: Forestry Commission, Forest Service and the 1995-99 National Inventory of Woodland and Trees.

1. Broadleaves include coppice and coppice with standards.

2. Non-FC woodland figures for England, Scotland and Wales are based on the 1995-99 National Inventory of Woodland and Trees (NIWT) and adjusted for new planting and sales of FC woodland, but at present no adjustment is made for woodland converted to another land use. They include non-FC publicly owned woodland. The NIWT did not include Northern Ireland.

Area of woodland: changes over time

The information for Great Britain in Table 1.2 is taken from woodland censuses from 1905 onwards (not National Statistics). Most censuses, however, used slightly different definitions of woodland, so some of the changes in area are due to changing definitions. The principal differences are:

- **1905** Felled areas and scrub were not included.
- **1924** Undertaken by questionnaire; woods smaller than 2 acres (0.8 hectares) were not included.
- **1947** Woodlands with an area of less than 5 acres (2 hectares) were not included.
- **1965** Woodlands with an area of less than 1 acre (0.4 hectares) were not included.
- **1980** Woodlands with an area of less than 0.25 hectares were not included.
- **1995-99** Woodlands with an area of 0.1-2 hectares were included on a sample basis; some woodland missing from earlier surveys was included.

The information for Northern Ireland comes from a variety of sources.

The 2.8 million hectares of woodland in the UK represents 11.6% of the total land area; this percentage ranges from 6.3% in Northern Ireland to 17.1% in Scotland.

Table 1.2 Woodland area in the United Kingdom

Year	UK		England		Scotland ³		Wales		N Ireland ⁴	
	Area 000ha	% ¹	Area 000ha	% ¹	Area 000ha	% ¹	Area 000ha	% ¹	Area 000ha	% ¹
1086²				~15						
c1350				~10		~4				
17thC				~8		~4				~1.5
1905	1 140	4.7	681	5.2	351	4.5	88	4.2	15	1.1
1924	1 211	5.0	660	5.1	435	5.6	103	5.0	13	1.0
1947	1 419	5.8	755	5.8	513	6.6	128	6.2	23	1.8
1965	1 784	7.3	886	6.8	656	8.4	201	9.7	42	3.1
1980	2 175	9.0	948	7.3	920	11.8	241	11.6	67	4.9
1995-99	2 746	11.3	1 097	8.4	1 281	16.4	287	13.8	81	6.0
2006⁵	2 829	11.6	1 121	8.6	1 337	17.1	285	13.7	86	6.3

Source: Forestry Commission and Forest Service.

1. Percentage of the total surface area including inland water. The total surface areas, including inland water, taken from the Annual Abstract of Statistics 2002 (published by the Office for National Statistics) are:

United Kingdom	24 291 000 hectares
England	13 042 000 hectares
Scotland	7 813 000 hectares
Wales	2 078 000 hectares
Northern Ireland	1 358 000 hectares

2. Estimated from information in the Domesday Survey of England.
3. For Scotland, estimate for end of the Middle Ages from "Scottish Woodland History" (TC Smout ed, 1997), and estimate from Roy maps c1750.
4. For Northern Ireland, 17th century figure is estimate for all Ireland, 1905 figure is estimate for Ulster 1908, 1947 figure assumes no change from 1939-40 Census
5. Non-FC woodland figures for 2006 for England, Scotland and Wales are based on the 1995-99 National Inventory of Woodland and Trees (NIWT) and adjusted for new planting and sales of FC woodland, but at present no adjustment is made for woodland converted to another land-use.

The Forestry Commission/Forest Service owned or managed 29% of the total woodland area in the UK in 2006. This proportion ranged from 18% of the woodland area in England to 71% in Northern Ireland.

Table 1.3 Area of woodland in the United Kingdom by ownership

thousands of hectares					
Year	UK	England	Scotland	Wales	N Ireland
Forestry Commission/Forest Service					
2002	855	206	475	113	61
2003	848	207	470	110	61
2004	842	205	465	110	62
2005	838	205	463	109	61
2006	832	204	460	108	61
Non-FC/FS woodland					
2002	1 945	898	849	175	23
2003	1 960	904	857	176	24
2004	1 976	910	865	176	24
2005	1 987	914	871	177	25
2006	1 997	918	876	178	25
Total woodland					
2002	2 800	1 104	1 324	288	84
2003	2 807	1 110	1 327	285	85
2004	2 817	1 115	1 330	286	86
2005	2 825	1 119	1 334	286	85
2006	2 829	1 121	1 337	285	86

Source: Forestry Commission, Forest Service and 1995-99 National Inventory of Woodland and Trees.

Land-use

Woodland accounted for 74% of all Forestry Commission/Forest Service land in the UK in 2005-06. This proportion was highest in Wales (87%) and lowest in Scotland (69%).

Table 1.4 Land-use of the Forestry Commission and Forest Service

thousands of hectares					
Year (ending 31/3)	UK	England	Scotland	Wales	N Ireland
Woodland¹					
2002	855	206	475	113	61
2003	848	207	470	110	61
2004	842	205	465	110	62
2005	838	205	463	109	61
2006	832	204	460	108	61
Other land^{1, 2}					
2002	273	51	192	16	14
2003	273	52	190	16	14
2004	274	53	191	16	14
2005	291	54	205	17	15
2006	296	55	208	17	15
Total FC/FS land area					
2002	1 129	257	667	129	76
2003	1 121	259	660	126	76
2004	1 116	259	656	125	76
2005	1 129	259	668	126	76
2006	1 128	259	668	125	76

Source: Forestry Commission and Forest Service.

1. The definitions used by Forestry Commission and Forest Service have varied over time, so there are some small inconsistencies in the comparisons in Table 1.4.
2. 'Other land' includes agricultural land and areas of moorland and mountain.

National Inventory of Woodland and Trees (GB)

The following tables and charts present information for Great Britain, obtained from the 1995-99 National Inventory of Woodland and Trees (not National Statistics).

Table 1.5 shows that 44% of the GB woodland area in 1995-99 was personally owned. A further 35% was owned or managed by the Forestry Commission.

Table 1.5 Area of woodland¹ in GB by ownership type

Ownership type	thousands of hectares			
	GB	England	Scotland	Wales
Forestry Commission	882	223	539	120
Other public body (not FC)	45	27	13	5
Local authority	80	61	11	8
Private forestry or timber business	41	7	28	6
Other private business	273	147	101	26
Personal	1 110	481	533	96
Charity	90	68	14	8
Community ownership or common land	5	4	0	1
Unclassified	18	4	13	1
Total	2 545	1 022	1 253	270

Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

1. Excludes woods of less than 2 hectares

Over one half (53%) of the total woodland area in Great Britain is made up of conifers although this proportion ranges from 31% in England to 72% in Scotland.

Sitka spruce accounted for almost one half (49%) of the conifer area, followed by Scots pine (16%) and Lodgepole pine (10%). Amongst broadleaf species, Oak covered 23% of the broadleaf area, followed by Birch (16%) and Ash (13%).

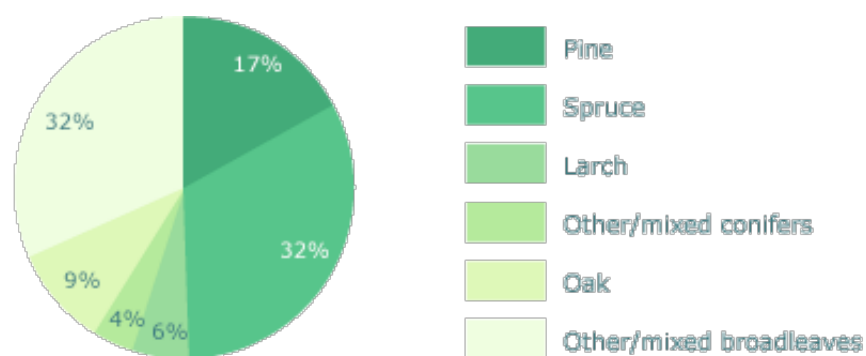
Table 1.6 Area of woodland in GB by main tree species

Species	thousands of hectares			
	GB	England	Scotland	Wales
Scots pine	227	82	140	5
Corsican pine	47	41	2	3
Lodgepole pine	135	7	122	6
Sitka spruce	692	80	528	84
Norway spruce	79	32	35	11
European larch	23	14	9	1
Japanese/hybrid larch	111	33	56	22
Douglas fir	45	24	10	11
Other conifer	30	19	5	6
Mixed conifer	18	9	8	0
Total Conifers	1 406	340	916	149
Oak	223	159	21	43
Beech	83	64	10	9
Sycamore	67	49	11	7
Ash	129	105	5	19
Birch	160	70	78	13
Poplar	12	11	0	1
Sweet chestnut	12	12	0	1
Elm	5	4	1	0
Other broadleaves	120	84	18	18
Mixed broadleaves	160	91	62	8
Total broadleaves	971	648	206	118
Total - all species	2 377	988	1 123	266
Felled	47	15	23	9
Coppice ¹	24	22	1	0
Open space ²	217	72	134	11
Total woodland	2 665	1 097	1 281	287

Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

1. Coppice includes coppice with standards.
2. Areas of integral open space, each less than 1 hectare.

Figure 1.1 Main tree species in GB



Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

Two thirds of woodland area in Great Britain consists of trees planted after 1950. Conifers tend to have a shorter rotation, with 87% of conifers but just 39% of broadleaves planted after 1950.

Table 1.7 Area of woodland¹ in GB by planting year classes²

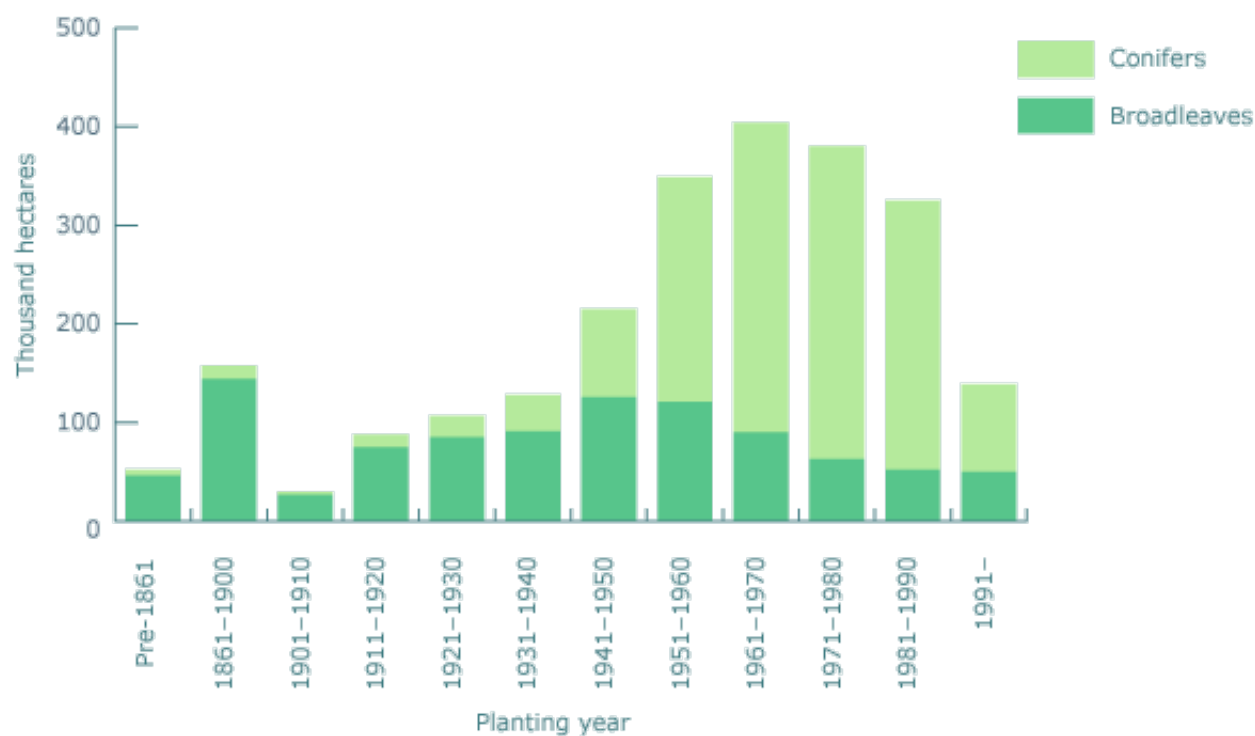
thousands of hectares				
Planting year	GB	England	Scotland	Wales
Conifers				
Pre-1861	6	2	4	0
1861-1900	14	5	9	0
1901-1910	3	1	1	0
1911-1920	13	6	7	0
1921-1930	22	7	13	1
1931-1940	37	16	17	4
1941-1950	89	36	43	10
1951-1960	228	67	129	33
1961-1970	314	74	203	38
1971-1980	317	59	234	24
1981-1990	273	36	215	21
1991-	89	32	41	17
Total	1 406	340	916	149
Broadleaves				
Pre-1861	46	34	12	1
1861-1900	144	89	31	24
1901-1910	27	19	5	4
1911-1920	75	55	11	9
1921-1930	85	60	16	9
1931-1940	91	56	15	20
1941-1950	126	85	25	16
1951-1960	121	80	27	15
1961-1970	90	59	22	8
1971-1980	63	42	17	4
1981-1990	52	33	15	4
1991-	50	36	11	3
Total	971	648	206	118
Total				
Pre-1861	52	35	16	1
1861-1900	157	94	40	24
1901-1910	30	21	6	4
1911-1920	88	61	18	9
1921-1930	107	67	29	10
1931-1940	128	72	31	25
1941-1950	215	121	69	26
1951-1960	350	146	156	47
1961-1970	404	133	225	46
1971-1980	380	101	251	28
1981-1990	325	70	230	26
1991-	140	68	52	20
Total	2 377	988	1 123	266

Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

1. Excluding felled, coppice and open space.

2. Age is determined from records where these are available. Where records were not available or were clearly inaccurate, age-class was assigned by reference to similar crops of known age in the locality.

Figure 1.2 Age profile of woodland in GB



Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

There are estimated to be around 3814 million trees in Great Britain. The majority of these (56%) are in Scotland, with a further 34% in England and the remainder in Wales.

Table 1.8 Number of trees in GB

	millions of trees			
	GB	England	Scotland	Wales
Conifers (woods over 2 ha)	2 667	523	1 892	252
Broadleaves (woods over 2 ha)	857	577	188	92
Small woods and other	290	179	73	38
All trees	3 814	1 279	2 154	382

Source: 1995-99 National Inventory of Woodland and Trees (not National Statistics).

Area of farm woodland

Agricultural Censuses run by Defra (Department for Environment, Food and Rural Affairs) and the devolved administrations collect annual information on the land-use of farms. The table below shows the area of woodland on farms.

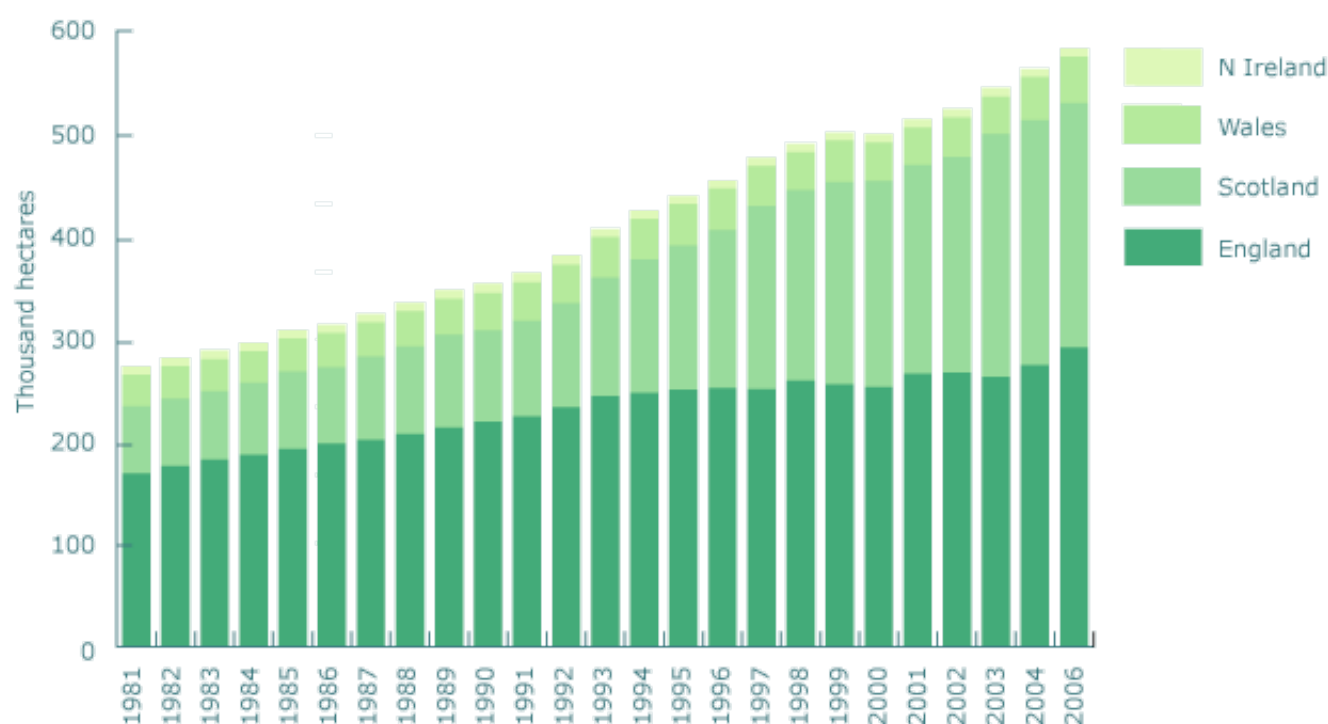
The area of farm woodland in the UK has increased, from 454 thousand hectares in 1996 to 583 thousand hectares in 2005. Around one half (50%) of all farm woodland is in England, with a further 41% in Scotland, 8% in Wales and 1% in Northern Ireland.

Table 1.9 Area of farm woodland, 1996 to 2005

thousands of hectares					
Year	UK	England	Scotland	Wales	N Ireland
1996	454.4	251.8	154.3	40.1	8.2
1997	476.4	251.2	178.1	38.9	8.2
1998	490.0	259.1	185.5	37.2	8.2
1999	501.2	255.4	197.2	40.4	8.2
2000	499.5	253.2	200.6	37.1	8.6
2001	513.9	266.2	202.9	36.7	8.2
2002	523.6	267.0	209.9	38.8	7.9
2003	544.3	262.9	236.6	36.5	8.4
2004	563.0	274.1	239.0	41.7	8.2
2005	583.2	291.7	238.0	44.9	8.6

Source: June Agricultural Census - Defra, SEERAD, WAG, DARDNI.

Figure 1.3 Area of farm woodland, 1981-2005



Source: June Agricultural Census - Defra, SEERAD, WAG, DARDNI.

Area of woodland: international comparisons

The forest areas in Table 1.10 are from the Global Forest Resources Assessment 2005, compiled by the UN Food and Agriculture Organisation (FAO) (not a National Statistics publication).

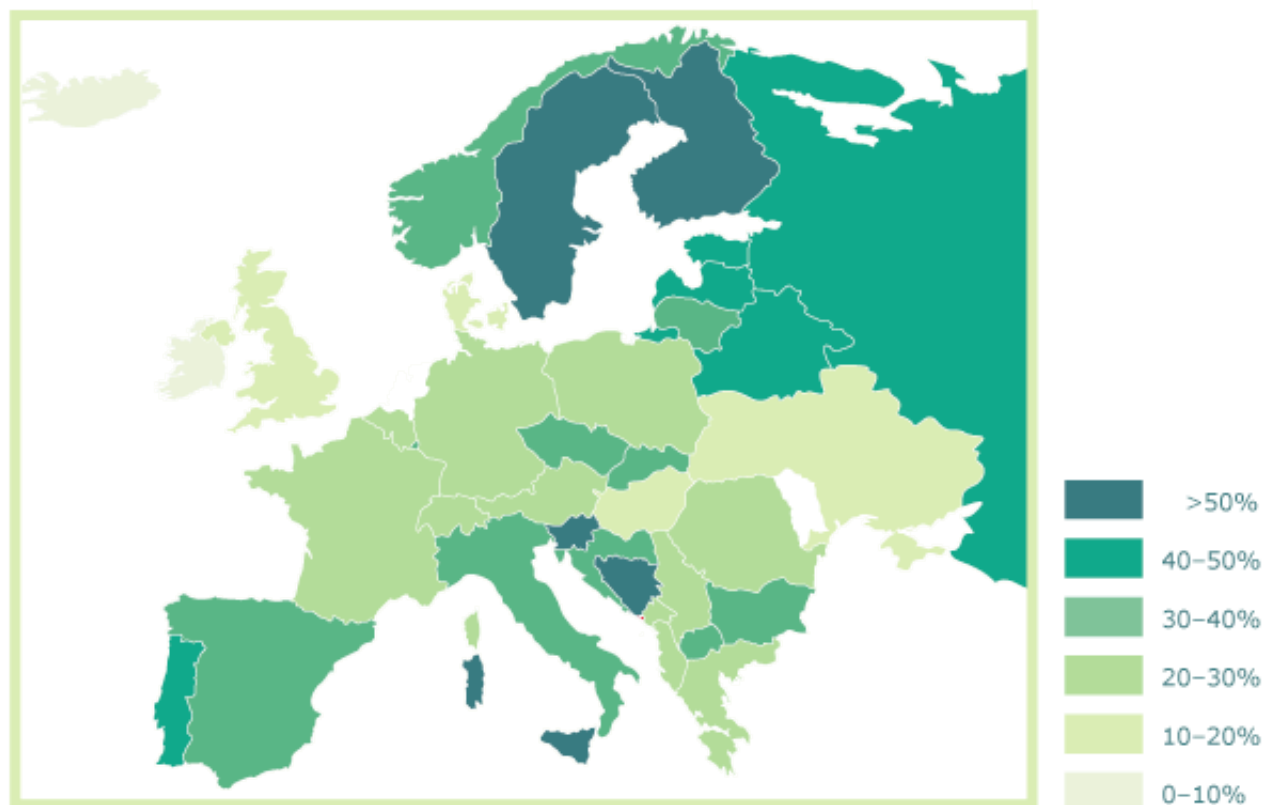
At under 12% forest cover, the UK is one of the least densely forested countries in Europe.

Table 1.10 Forest cover: international comparisons - 2005

Country	Forest area (thousand ha)	Total land area (thousand ha)	Forest as % of land area
United Kingdom	2 845	24 088	11.8%
Finland	22 500	30 447	73.9%
France	15 554	55 010	28.3%
Germany	11 076	34 895	31.7%
Italy	9 979	29 411	33.9%
Spain	17 915	49 944	35.9%
Sweden	27 528	41 162	66.9%
Other EU	38 192	120 178	31.8%
Total EU-25	145 589	385 135	37.8%
Non-EU	47 189	187 046	25.2%
Russian Federation	808 790	1 688 850	47.9%
Total Europe	1 001 568	2 261 032	44.3%
Total Asia	571 402	3 087 112	18.5%
Total North and Central America	705 849	2 143 909	32.9%
Total South America	831 540	1 743 232	47.7%
Total Africa	635 412	2 968 458	21.4%
Total Oceania	206 254	849 111	24.3%
World	3 952 025	13 052 852	30.3%

The FAO Global Forest Resources Assessment (FRA) is a collation of forest data undertaken by the UN FAO at the global level. The information in Table 1.10 uses forest area from FRA 2005, excluding 'other wooded land'; for the UK, this is very similar to the definition of 'woodland' used in previous tables.

Figure 1.4 Per cent woodland cover by country in Europe



Global Forest Resources Assessment 2005 (not National Statistics)

New planting and restocking

New planting is the creation of new areas of woodland. Restocking is the replanting of areas of woodland that have been felled. New planting can use planting/seeding or natural colonisation. Restocking can also use planting/seeding or natural regeneration. The figures in this section are for all types of woodland.

Information about Forestry Commission and Forest Service new planting and restocking comes from administrative systems. Information about other woodland has come principally from the Woodland Grant Scheme (WGS) and the successor grant schemes recently introduced in Scotland, England and Wales. For natural colonisation and regeneration, the areas are those for which the second instalment of grant has been paid. Areas receiving grant are allocated to years by date of payment.

Local estimates for areas of planting and restocking which are not FC and which are not grant-aided are included for England, Scotland and Wales. These estimates are relatively small (around 700 hectares in total in 2005-06), and it has been assumed that all of this area is broadleaves. It is assumed that there is no non-FS non-grant aided planting and restocking in Northern Ireland.

The total area of new planting and restocking in the UK was 23.5 thousand hectares in 2005-2006. Restocking accounted for almost two-thirds of this total. Broadleaved species accounted for the majority (87%) of new planting but just 22% of the restocking area in 2005-06.

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Table 1.11 New planting and restocking: breakdown between broadleaves and conifers¹

thousands of hectares									
Year (ending 31/3)	New planting			Restocking			Total		
	Broadleaf	Conifer	Total	Broadleaf	Conifer	Total	Broadleaf	Conifer	Total
UK total									
2001-02	10.5	3.9	14.4	2.4	11.4	13.8	12.9	15.3	28.2
2002-03	9.5	4.0	13.5	2.5	12.0	14.5	12.0	16.0	28.0
2003-04	9.5	2.9	12.4	2.8	12.1	14.9	12.3	15.1	27.3
2004-05	9.8	2.1	11.9	2.9	12.0	14.8	12.7	14.1	26.7
2005-06	7.6	1.1	8.7	3.3	11.6	14.8	10.8	12.7	23.5
England									
2001-02	4.7	0.7	5.4	0.8	2.6	3.4	5.5	3.2	8.7
2002-03	5.4	0.5	5.9	0.9	2.4	3.4	6.3	3.0	9.2
2003-04	4.4	0.2	4.6	0.9	2.3	3.2	5.3	2.5	7.8
2004-05	5.1	0.2	5.3	0.9	1.9	2.8	6.0	2.1	8.1
2005-06	3.6	0.1	3.7	1.1	2.1	3.2	4.6	2.2	6.8
Scotland									
2001-02	5.0	3.0	8.0	1.2	6.6	7.8	6.2	9.6	15.8
2002-03	3.7	3.0	6.7	1.1	7.4	8.5	4.9	10.3	15.2
2003-04	4.2	2.6	6.8	1.3	7.6	8.9	5.5	10.2	15.7
2004-05	3.8	1.9	5.7	1.5	8.0	9.5	5.3	9.9	15.2
2005-06	3.0	1.0	4.0	1.1	7.1	8.2	4.1	8.1	12.2
Wales									
2001-02	0.2	0.0	0.3	0.3	1.6	1.9	0.5	1.6	2.2
2002-03	0.3	0.0	0.3	0.3	1.6	1.9	0.6	1.6	2.2
2003-04	0.4	0.0	0.5	0.5	1.4	1.8	0.9	1.4	2.3
2004-05	0.5	0.0	0.5	0.4	1.2	1.6	1.0	1.2	2.1
2005-06	0.5	0.0	0.5	0.9	1.6	2.5	1.4	1.6	2.9
Northern Ireland									
2001-02	0.5	0.2	0.7	0.1	0.7	0.8	0.6	0.9	1.5
2002-03	0.1	0.5	0.6	0.1	0.6	0.7	0.2	1.1	1.3
2003-04	0.4	0.1	0.5	0.2	0.9	1.0	0.6	1.0	1.6
2004-05	0.3	0.0	0.4	0.1	0.9	1.0	0.4	0.9	1.3
2005-06	0.6	0.0	0.6	0.2	0.8	0.9	0.7	0.8	1.5

Source: Forestry Commission, Forest Service and grant schemes.

1. Figures for England in 2004-05 have been revised from Forestry Statistics 2005.

Almost all new planting (97% in 2005-06) takes place on non-FC/FS land. In contrast, most restocking occurs on FC/FS land (63%).

Table 1.12 New planting and restocking: breakdown between Forestry Commission / Forest Service and other woodland¹

thousands of hectares									
Year (ending 31/3)	New planting			Restocking			Total		
	FC/FS	Non-FC/FS	Total	FC/FS	Non-FC/FS	Total	FC/FS	Non-FC/FS	Total
UK total									
2001-02	0.8	13.6	14.4	9.1	4.7	13.8	9.9	18.3	28.2
2002-03	0.9	12.6	13.5	9.1	5.3	14.5	10.0	17.9	28.0
2003-04	0.2	12.1	12.4	9.9	5.0	14.9	10.2	17.2	27.3
2004-05	0.1	11.8	11.9	9.4	5.5	14.8	9.5	17.3	26.7
2005-06	0.3	8.4	8.7	9.3	5.5	14.8	9.6	13.9	23.5
England									
2001-02	0.6	4.7	5.4	2.3	1.1	3.4	2.9	5.8	8.7
2002-03	0.7	5.2	5.9	2.3	1.1	3.4	3.0	6.3	9.2
2003-04	0.1	4.6	4.6	2.2	0.9	3.2	2.3	5.5	7.8
2004-05	0.1	5.3	5.3	1.8	0.9	2.8	1.9	6.2	8.1
2005-06	0.2	3.5	3.7	2.4	0.8	3.2	2.6	4.3	6.8
Scotland									
2001-02	0.1	7.9	8.0	4.9	2.9	7.8	5.0	10.8	15.8
2002-03	0.1	6.6	6.7	5.0	3.5	8.5	5.1	10.1	15.2
2003-04	0.1	6.7	6.8	5.3	3.6	8.9	5.4	10.3	15.7
2004-05	0.0	5.6	5.7	5.3	4.2	9.5	5.3	9.8	15.2
2005-06	0.1	3.9	4.0	4.4	3.8	8.2	4.5	7.7	12.2
Wales									
2001-02	0.0	0.3	0.3	1.1	0.8	1.9	1.1	1.0	2.2
2002-03	0.0	0.3	0.3	1.2	0.7	1.9	1.2	1.0	2.2
2003-04	0.0	0.5	0.5	1.4	0.4	1.8	1.4	0.9	2.3
2004-05	0.0	0.5	0.5	1.3	0.3	1.6	1.3	0.8	2.1
2005-06	0.0	0.5	0.5	1.7	0.8	2.5	1.7	1.3	2.9
Northern Ireland									
2001-02	0.1	0.6	0.7	0.8	0.0	0.8	0.8	0.7	1.5
2002-03	0.1	0.5	0.6	0.7	0.0	0.7	0.8	0.5	1.3
2003-04	0.1	0.4	0.5	1.0	0.1	1.0	1.1	0.5	1.6
2004-05	0.0	0.3	0.4	0.9	0.1	1.0	0.9	0.4	1.3
2005-06	0.0	0.6	0.6	0.8	0.1	0.9	0.9	0.7	1.5

Source: Forestry Commission, Forest Service and grant schemes.

1. Figures for England in 2004-05 have been revised from Forestry Statistics 2005.

Figure 1.5 New planting in the UK, 1976-2006



Source: Forestry Commission, Forest Service and grant schemes.

Figure 1.6 Restocking in the UK, 1976-2006



Source: Forestry Commission, Forest Service and grant schemes.