Forestry Commission

Forestry Statistics 2005

A compendium of statistics about woodland, forestry and primary wood processing in the United Kingdom

Introduction

Forestry Statistics is a compendium of statistical information about woodland, forestry and primary wood processing in the UK. Traditionally forestry statistics have focused on forests as a source of timber, and on the use of timber by wood processing industries. However, in recent years, it has been increasingly recognised that a wider range of environmental and social aspects of woodland should be reflected in the statistical information that is collected and published. This publication includes some information about environment and recreation, but it is still weighted towards the traditional topics that have the best quality data. A more balanced set of information is provided by the UK Indicators of Sustainable Forestry, which were published in October 2002 and updated on the website www.forestry.gov.uk/sfindicators

As a National Statistics output, this publication concentrates on topics for which the data meet National Statistics quality standards. However a few topics outside the scope of National Statistics are included, to give a more rounded picture; any such tables are footnoted or headed as 'not National Statistics'. This means that they have not been subject to National Statistics quality assurance procedures, but does not necessarily imply that they are of poorer quality.

Where possible, statistical information in this publication covers the whole of the United Kingdom, and is broken down to give figures for England, Scotland, Wales and Northern Ireland. We would like to acknowledge the contribution of Northern Ireland's Forest Service in providing a wide range of statistics for this publication, which has made it possible to have a more comprehensive coverage of the UK. However, there are some topics for which data are currently only available for Great Britain (excluding Northern Ireland), and these tables are labelled as being GB only.

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National Statistics

Official statistics bearing the National Statistics logo are produced to high professional standards set out in the National Statistics Code of Practice and supporting protocols. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from political interference.

The main statistics outputs produced by the Forestry Commission were approved for inclusion in National Statistics from August 2001. National Statistics outputs include UK Timber Statistics (last published in August 2005), Forestry Facts & Figures (September 2005) and this publication, Forestry Statistics (November 2005). Further information on how we are implementing the National Statistics Code of Practice and supporting protocols is available in the Forestry Commission's Statement of Compliance, available from our website (www.forestry.gov.uk/statistics). You can also find National Statistics on the web at www.statistics.gov.uk

FC Statistics

Forestry Commission's statistical release practices

The Forestry Commission aims to release statistics as soon as they are available. All of our National Statistics publications are available on our website (www.forestry.gov.uk/statistics).

Release dates are published on our website for the year ahead and publications are made available at 12.30 on the day of release. Further details on FC statistical release practices are available in our compliance statement, available from our website.

Forestry Commission's statistical revisions policy

Revisions to statistics can occur when further data become available or errors are corrected. The Forestry Commission will normally revise statistics when the figures next appear in any publication. However, if the revision is significant (i.e. resulting in a major change to the published figures), a note showing the revisions will be published as soon as possible on our website and distributed to all known recipients. Any figures that have been revised since those published in Forestry Statistics 2004 (and Forestry Facts and Figures 2005 and UK Timber Statistics 2004, where relevant) are indicated by a footnote.

For further information, go to www.forestry.gov.uk/statistics

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: 2005

The area of woodland in the UK at 31 March 2005 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 the remaining 0.1 million hectares (3%) is in Northern Ireland.

Table 1.1 Area of woodland by ownership and forest type at 31 March 2005

thousands of hectares

		Conifers	Broadleaves[1]	Total
United Kingdom	FC/FS woodland	743	95	838
	Non-FC/FS woodland	905	1 082	1 987
	Total	**1 647**	**1 178**	**2 825**
England	FC woodland	153	52	205
	Non-FC woodland[2]	217	697	914
	Total	**370**	**750**	**1 119**
Scotland	FC woodland	437	26	463
	Non-FC woodland[2]	613	258	871
	Total	**1 050**	**284**	**1 334**
Wales	FC woodland	97	12	109
	Non-FC woodland[2]	64	113	177
	Total	**161**	**125**	**286**
Northern Ireland	FS woodland	56	5	61
	Non-FS woodland	10	14	25
	Total	**66**	**19**	**85**

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, although 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]**
1086[2]				~15						
c1350				~10		~4				
late 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
2005[5]	2 825	11.6	1 119	8.6	1 334	17.1	286	13.8	85	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 2005 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 30% of the total woodland area in the UK in 2005. However, this proportion ranged from 18% of the woodland area in England to 72% 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					
2001	861	208	478	115	61
2002	855	206	475	113	61
2003	848	207	470	110	61
2004	842	205	465	110	62
2005	838	205	463	109	61
Non-FC/FS woodland					
2001	1 929	893	839	175	22
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
Total woodland					
2001	2 790	1 100	1 317	289	83
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

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 2004-05. 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
Woodland[1]					
2001	862	208	478	115	61

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
2002	856	206	475	113	61
2003	848	207	470	110	61
2004	841	205	465	110	62
2005	838	205	463	109	61
Other land[1],[2]					
2001	267	51	187	15	15
2002	273	51	192	16	14
2003	273	52	190	16	14
2004	274	53	191	16	14
2005	291	54	205	17	15
Total FC/FS land area					
2001	1 129	258	665	130	76
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

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 woodland[1] in GB by ownership type

thousands of hectares

Ownership type	GB	England	Scotland	Wales
Forestry Commission	882	223	539	120
Other public body (not FC)	45	27	13	5

Table 1.5 Area of woodland[1] in GB by ownership type

thousands of hectares

Ownership type	GB	England	Scotland	Wales
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

thousands of hectares

Species	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

Table 1.6 Area of woodland in GB by main tree species

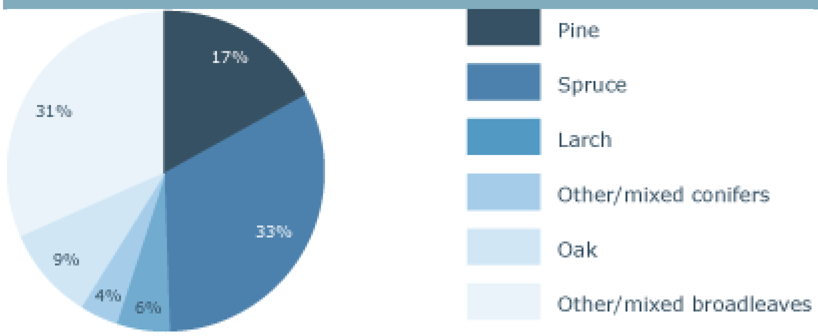
thousands of hectares

Species	GB	England	Scotland	Wales
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 woodland[1] in GB by planting year classes[2]

thousands of hectares

Planting year	GB	England	Scotland	Wales
Conifers				
Pre-1861	6	2	4	0

Table 1.7 Area of woodland[1] in GB by planting year classes[2]

thousands of hectares

Planting year	GB	England	Scotland	Wales
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

Table 1.7 Area of woodland[1] in GB by planting year classes[2]

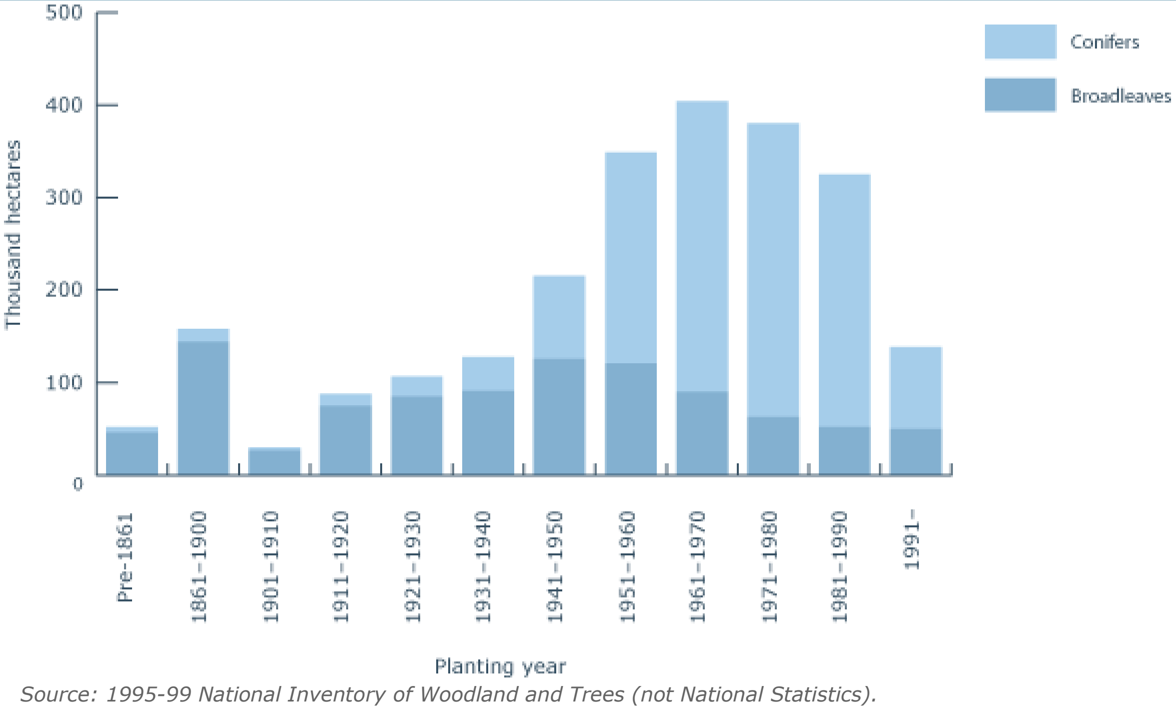
thousands of hectares

Planting year	GB	England	Scotland	Wales
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 439 thousand hectares in 1995 to 563 thousand hectares in 2004. Around one half (49%) of all farm woodland is in England, with a further 42% in Scotland, 7% in Wales and 1% in Northern Ireland.

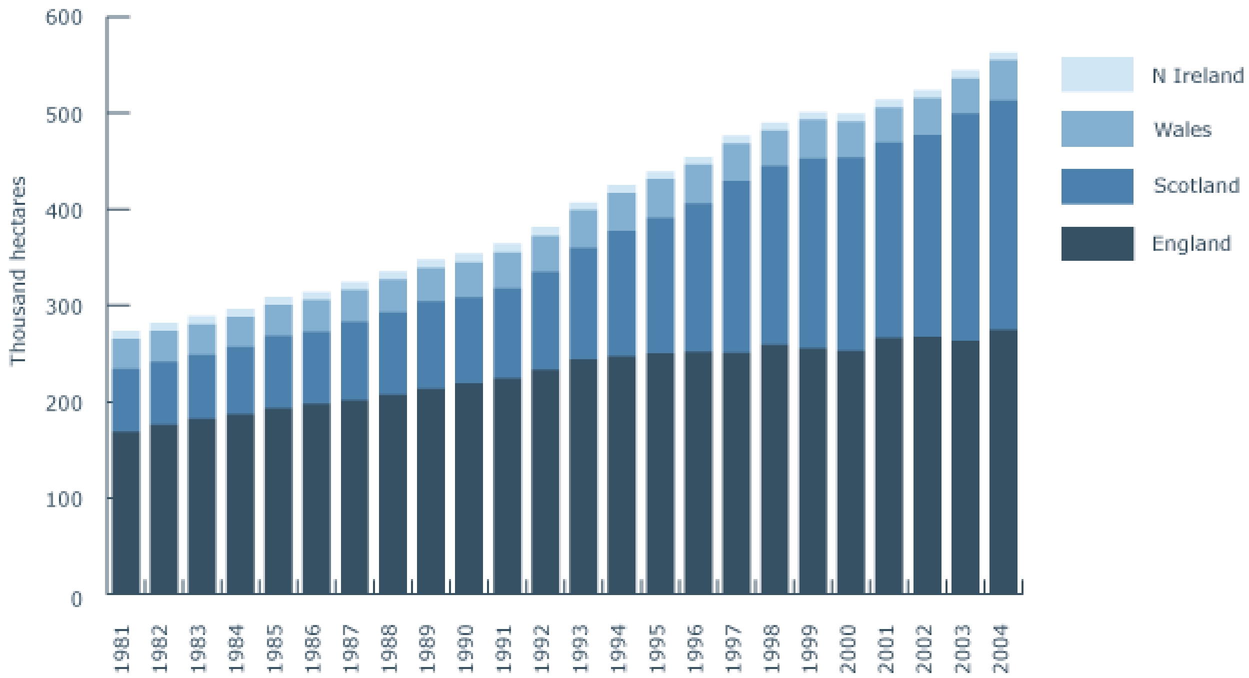
Table 1.9 Area of farm woodland, 1995 to 2004

thousands of hectares

Year	UK	England	Scotland	Wales	N Ireland
1995	439.2	250.6	140.4	40.1	8.1
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

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

Figure 1.3 Area of farm woodland, 1981-2004



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

Area of woodland: international comparisons

The forest areas in Table 1.10 are mostly estimates by the Food and Agriculture Organisation (FAO) published in FAO's *State of the World's Forests 2005* (not a National Statistics publication).

At 11.6% forest cover (in 2000), the UK is one of the least densely forested countries in Europe.

Table 1.10 Forest cover: international comparisons - 2000

Country	Forest area (thousand ha)	Total land area (thousand ha)	Forest as % of land area
United Kingdom	2 794	24 160	11.6%
Austria	3 886	8 273	47.0%
Belgium/Luxembourg	728	3 282	22.2%
Denmark	455	4 243	10.7%
Finland	21 935	30 459	72.0%
France	15 341	55 010	27.9%
Germany	10 740	34 927	30.7%
Greece	3 599	12 890	27.9%
Ireland	659	6 889	9.6%
Italy	10 003	29 406	34.0%
Netherlands	375	3 392	11.1%
Portugal	3 666	9 150	40.1%
Spain	14 370	49 945	28.8%

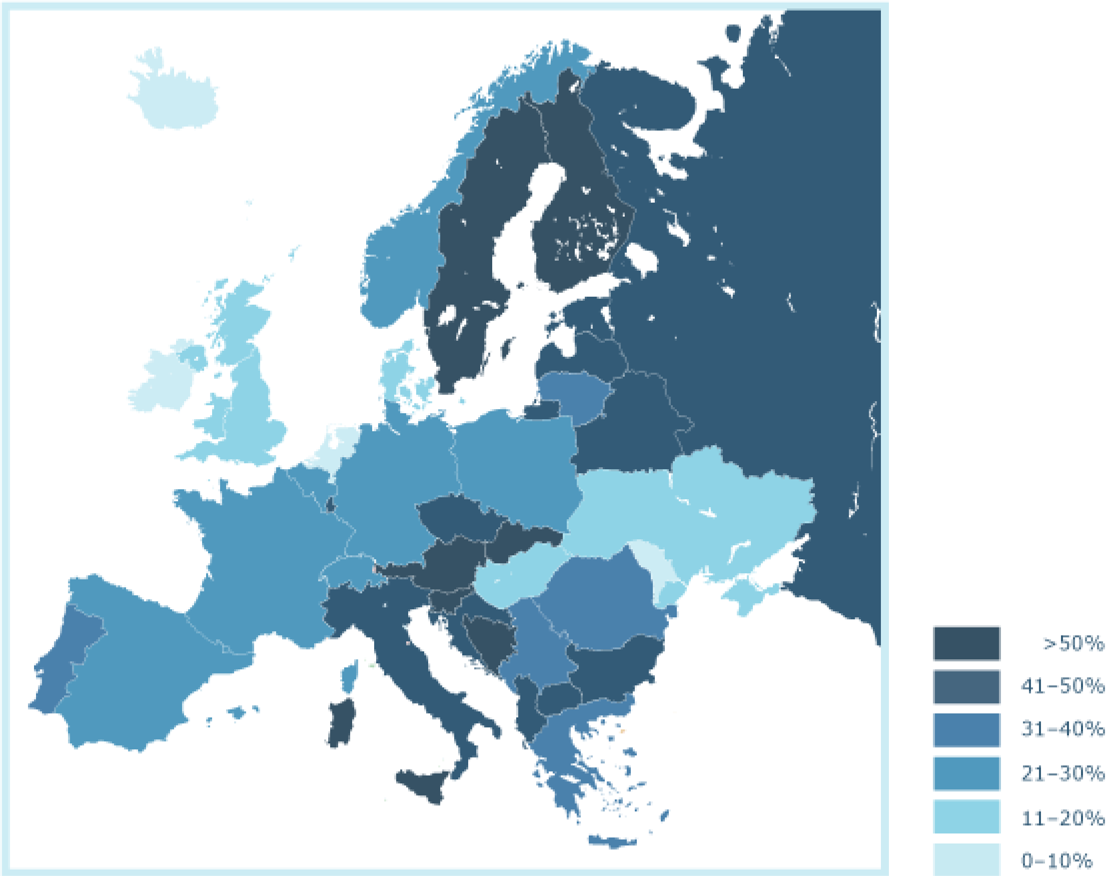
Table 1.10 Forest cover: international comparisons - 2000

Country	Forest area (thousand ha)	Total land area (thousand ha)	Forest as % of land area
Sweden	27 134	41 162	65.9%
Total EU-15	**115 685**	**313 188**	**36.9%**
Estonia	2 060	4 227	48.7%
Latvia	2 923	6 205	47.1%
Lithuania	1 994	6 258	31.9%
Other EU-25	16 975	55 181	30.8%
Total EU-25	**139 637**	**385 059**	**36.3%**
Russian Federation	851 392	1 688 851	50.4%
Other Europe	48 394	186 972	25.9%
Total Europe[1]	**1 039 423**	**2 260 882**	**46.0%**
China	163 480	932 743	17.5%
Japan	24 081	37 652	64.0%
Other Asia	360 060	2 113 426	17.0%
Total Asia[1]	**547 621**	**3 083 821**	**17.8%**
USA	225 993	915 895	24.7%
Canada	244 571	922 097	26.5%
Other North and Central America	78 740	298 974	26.3%
Total North and Central America	**549 304**	**2 136 966**	**25.7%**
Brazil	543 905	845 651	64.3%
Other South America	341 713	909 090	37.6%
Total South America	**885 618**	**1 754 741**	**50.5%**
Total Africa	**649 866**	**2 978 394**	**21.8%**
Australia	154 539	768 230	20.1%
New Zealand	7 946	26 799	29.7%
Other Oceania	35 138	54 067	65.0%
Total Oceania	**197 623**	**849 096**	**23.3%**
World (excluding Antarctic)	**3 869 455**	**13 063 900**	**29.6%**

1. Cyprus is included in Europe above, but was included in Asia in the FAO publication.

The Forest Resources Assessment (FRA) is a collation of forest data undertaken by the UN FAO at the global level, and by UNECE for temperate and boreal regions. The information in Table 1.10 uses forest area from FRA 2000, excluding 'other wooded land'; for the UK, this is very similar to the definition of 'woodland' used in previous tables. The original sources for this table have varying dates, but have been updated using whatever information was available to FAO, to give an estimate of each country's forest resources in 2000. The UK figures were updated using emerging results from the 1995-99 National Inventory of Woodland and Trees.

Figure 1.4 Per cent woodland cover by country in Europe



Global Forest Resources Assessment 2000 (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 (from 2003-04) the Scottish Forestry Grant Scheme (SFGS). 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. See Chapter 7 for more information from the WGS and SFGS.

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 2004-05), 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.

New planting and restocking figures for the year ending 31 March 2002 may have been affected by the Foot and Mouth Disease restrictions which were in force during the year.

The total area of new planting and restocking in the UK was 26.5 thousand hectares in 2004-2005. Restocking accounted for more than half of this total. Broadleaved species accounted for the majority (82%) of new planting but just 19% of the restocking area in 2004-05.

Table 1.11 New planting and restocking: breakdown between broadleaves and conifers[1]

thousands of hectares

Year (ending 31/3)	New planting			Restocking			Total		
	Broadleaf	Conifer	Total	Broadleaf	Conifer	Total	Broadleaf	Conifer	Total
UK total									
2000-01	13.6	5.1	18.7	3.0	12.2	15.3	16.6	17.4	34.0
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	2.8	11.8	14.6	12.6	13.9	26.5
England									
2000-01	5.2	0.7	5.9	1.2	2.7	4.0	6.4	3.4	9.9
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	0.8	1.7	2.5	6.0	1.9	7.9
Scotland									
2000-01	7.8	3.9	11.7	1.4	6.6	8.0	9.2	10.6	19.7
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
Wales									
2000-01	0.4	0.1	0.4	0.3	1.9	2.2	0.6	2.0	2.6

Table 1.11 New planting and restocking: breakdown between broadleaves and conifers[1]

thousands of hectares

Year (ending 31/3)	New planting			Restocking			Total		
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
Northern Ireland									
2000-01	0.2	0.4	0.7	0.2	1.0	1.1	0.4	1.4	1.8
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

Source: Forestry Commission, Forest Service and Grant Schemes.

1. Figures for England in 2003-04 have been revised from Forestry Statistics 2004.

Almost all new planting (99% in 2004-05) 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 woodland[1]

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
2000-01	0.3	18.4	18.7	8.9	6.4	15.3	9.3	24.8	34.0
2001-02	0.8	13.6	14.4	9.1	4.7	13.8	9.9	18.3	28.2

Table 1.12 New planting and restocking: breakdown between Forestry Commission / Forest Service and other woodland[1]

thousands of hectares

Year (ending 31/3)	New planting			Restocking			Total		
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	9.1	5.5	14.6	9.2	17.3	26.5
England									
2000-01	0.1	5.7	5.9	2.1	1.8	4.0	2.3	7.6	9.9
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	0.0	5.3	5.3	1.6	0.9	2.5	1.7	6.2	7.9
Scotland									
2000-01	0.1	11.6	11.7	4.4	3.6	8.0	4.5	15.2	19.7
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
Wales									
2000-01	0.0	0.4	0.4	1.4	0.8	2.2	1.4	1.2	2.6
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

Table 1.12 New planting and restocking: breakdown between Forestry Commission / Forest Service and other woodland[1]

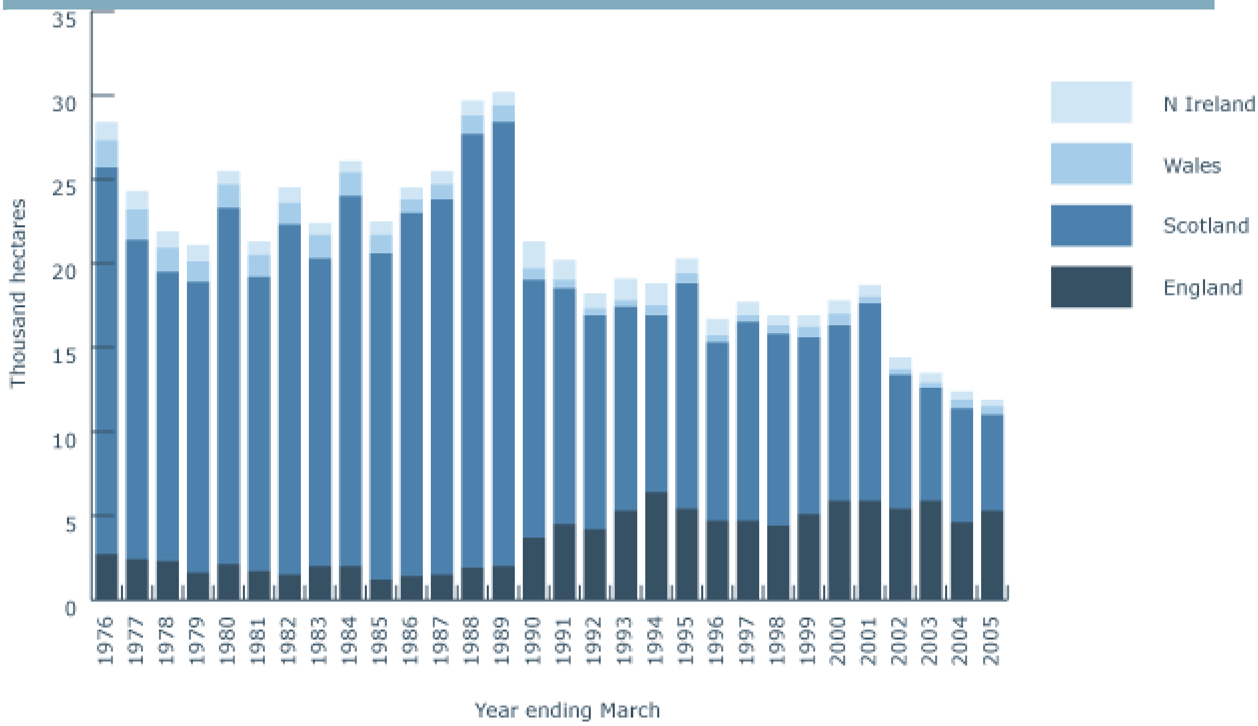
thousands of hectares

Year (ending 31/3)	New planting			Restocking			Total		
Northern Ireland									
2000-01	0.1	0.6	0.7	0.9	0.2	1.1	1.0	0.8	1.8
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

Source:Forestry Commission, Forest Service and Grant Schemes.

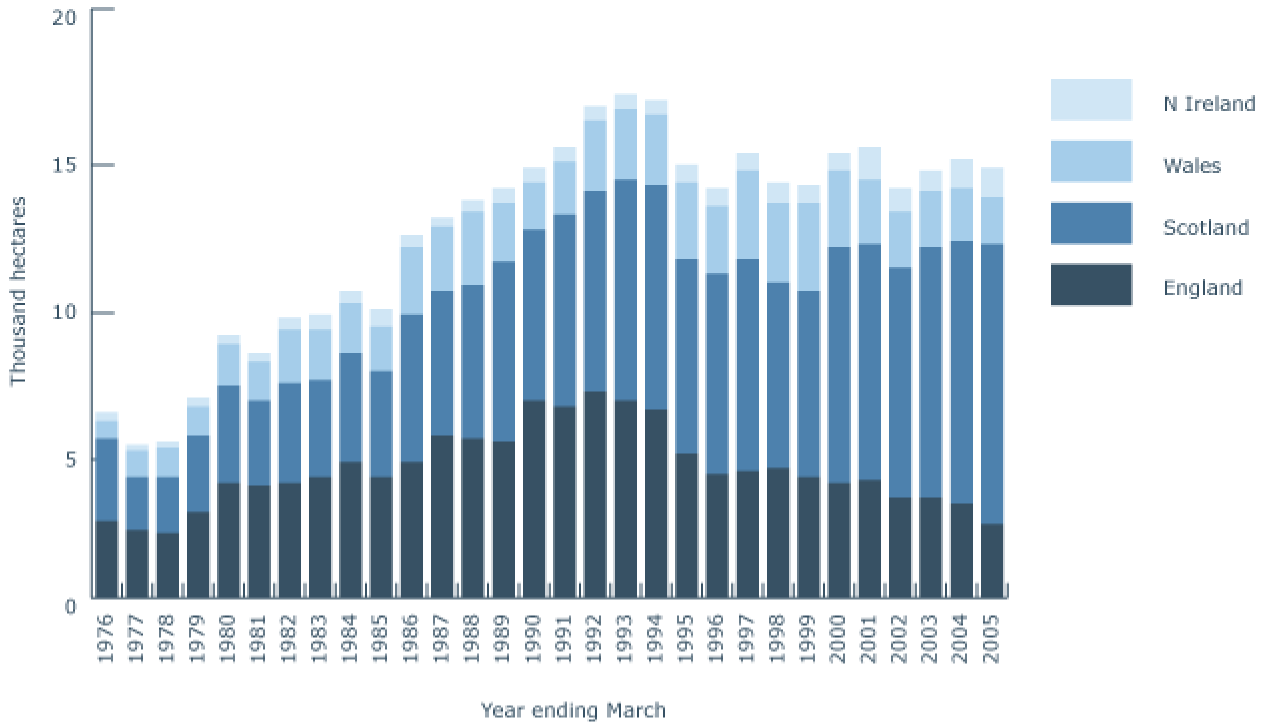
1. Figures for England in 2003-04 have been revised from Forestry Statistics 2004.

Figure 1.5 New planting in the UK, 1976-2005



Source: Forestry Commission, Forest Service and Grant Schemes.

Figure 1.6 Restocking in the UK, 1976-2005



Source: Forestry Commission, Forest Service and Grant Schemes.

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

UK grown timber and wood products

This section covers the production of timber from woodland, and the primary processing of harvested wood to give basic wood products.

Timber originating from conifers is known as softwood and that from broadleaves is known as hardwood.

Information in Tables 2.1-2.9 and 2.11-2.12 is taken from the National Statistics publication *UK Timber Statistics 2004.*

Information on employment within the forestry and primary wood processors sectors is given in section 6.

Wood production

Figures for production are expressed in green tonnes (i.e. weight when freshly felled). See conversion factors for information on converting between cubic metres and green tonnes.

A total of 9.6 million green tonnes was produced in the UK in 2004. This represented an increase of 6.8% from the 2003 total of 9.0 million green tonnes.

Table 2.1 Wood production[1]

thousand green tonnes

Calendar year	Softwood			Hardwood[2]	UK Total
	FC/FS woodland	Non-FC/FS woodland	Total softwood		
1995	3 590	2 890	6 480	880	7 360
1996	3 720	2 760	6 480	800	7 280
1997	3 950	2 850	6 790	820	7 610
1998	4 190	2 640	6 830	720	7 540
1999	4 730	2 550	7 280	680	7 960
2000	4 850	2 580	7 430	660	8 090
2001	4 600	2 900	7 500	640	8 150
2002	4 650	3 030	7 680	620	8 300
2003	4 820	3 590	8 410	560	8 970
2004	4 890	4 170	9 070	510	9 580

Source: UK Timber Statistics 2004.

1. Figures have been rounded to the nearest 10 thousand green tonnes.
2. Most hardwood production in the UK comes from non-FC/FS woodland; the figures are estimates based on reported deliveries to wood processing industries.

Softwood production forecasts (not National Statistics) are taken from the 2000 softwood assessment and from Forest Service. Strictly, they are forecasts of availability rather than production, as they do not take account of financial factors or the state of markets, which may cause production to be delayed or brought forward. More information and detailed breakdowns of GB forecasts are available in *Great Britain: new forecast of softwood availability* in the April 2001 edition of *Forestry & British Timber*.

Softwood production in the UK is projected to increase to an annual average of 16 million m^3 overbark standing over the five year period 2017 to 2021. The majority of this softwood is projected to come from non-FC/FS woodland.

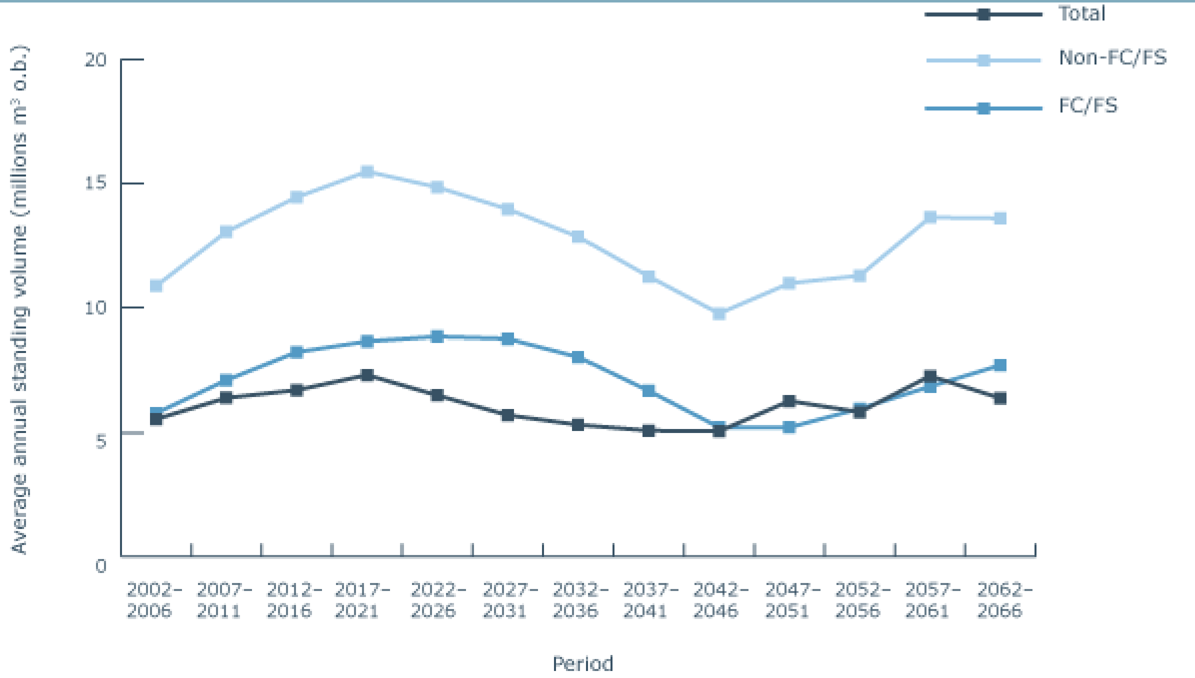
Table 2.2 Wood production forecasts

thousand m^3 overbark standing

Annual average in the five years:	Softwood			Hardwood	Total
	FC/FS woodland	Non-FC/FS woodland	Total softwood		
2002-2006	5 530	5 770	11 290	1 000	12 290
2007-2011	6 380	7 100	13 480	1 000	14 480
2012-2016	6 690	8 220	14 920	1 000	15 920
2017-2021	7 300	8 650	15 950	1 000	16 950

Source: 2000 softwood assessment and Forest Service.

Figure 2.1 Longer term trend in softwood availability by sector



Timber deliveries

Most figures for timber deliveries (inputs to wood processing) are expressed in green tonnes. See [Conversion factors](#) for information on converting from green tonnes to underbark volumes.

A total of 8.3 million green tonnes of UK grown softwood and 0.5 million green tonnes of UK grown hardwood were delivered to wood processing industries in the UK in 2004. Sawmills accounted for the majority of softwood deliveries (59%) but just 18% of hardwood deliveries. A further 18% of softwood was delivered to woodbased panel mills and 6% to integrated pulp and paper mills. Roundwood exports in 2004 accounted for 11% of all softwood deliveries.

Table 2.3 Deliveries of UK grown roundwood to the wood processing industries[1]

thousand green tonnes

Year	Sawmills	Pulp mills	Woodbased panel mills	Miscellaneous[2]	Exports[3]	Total
Softwood						
1995	3 866	1 106	1 699	570	8	7 249
1996	4 006	853	1 500	520	0	6 879
1997	4 081	940	1 690	505	0	7 216
1998	4 156	844	1 527	535	0	7 063
1999	4 454	660	1 613	539	24	7 290
2000	4 473	695	1 685	500	16	7 370
2001	4 590	668	1 680	500	61	7 498
2002	4 661	696	1 456	445	133	7 391
2003	4 788	704	1 486	436	307	7 721
2004	4 894	483	1 525	454	930	8 286
Hardwood						
1995	364	196	113	206	0	879
1996	304	202	91	206	0	803
1997	297	198	118	206	0	819
1998	255	180	77	206	0	718
1999	228	191	52	206	0	677
2000	200	200	50	206	0	656
2001	192	209	35	206	0	642
2002	163	210	43	206	0	622
2003	139	215	4	206	0	564
2004	93	214	2	206	0	515
Total						
1995	4 229	1 302	1 812	776	8	8 128
1996	4 310	1 055	1 591	726	0	7 682
1997	4 378	1 138	1 808	711	0	8 035
1998	4 412	1 024	1 604	741	0	7 781
1999	4 682	851	1 665	745	24	7 967
2000	4 673	895	1 735	706	16	8 025

Table 2.3 Deliveries of UK grown roundwood to the wood processing industries[1]

thousand green tonnes

Year	Sawmills	Pulp mills	Woodbased panel mills	Miscellaneous[2]	Exports[3]	Total
2001	4 782	877	1 715	706	61	8 141
2002	4 824	906	1 499	651	133	8 013
2003	4 927	919	1 490	642	307	8 285
2004	4 987	697	1 527	660	930	8 801

Source: UK Timber Statistics 2004.

1. Figures have been revised from Forestry Statistics 2004 in light of additional information received.
2. These figures were estimated by, or partly composed of estimates made by, the Expert Group on Timber and Trade Statistics.
3. Exports here are the quantities of wood exported without going to a wood processing industry in the UK. Data for exports from Northern Ireland in 1995-2003 are not available.

Sawmills

Data are collected by the Forestry Commission in an annual Sawmill Survey. For more details, see UK Timber Statistics 2004.

Consumption units are given in green tonnes. For production, the units used are m^3 sawnwood - see Conversion factors.

In 2004 UK sawmills consumed a total of 5.1 million green tonnes of softwood, producing 2.7 million m^3 sawnwood. A further 121 thousand green tonnes of hardwood was consumed, producing 61 thousand m^3 sawnwood.

Table 2.4 Consumption and production of UK timber by sawmills[1]

	Consumption of roundwood (thousand green tonnes)		Production of sawn timber (thousand m^3)	
	Softwood	Hardwood	Softwood	Hardwood
1995	4 091	366	2 263	186
1996	4 269	344	2 323	176
1997	4 335	303	2 388	147
1998	4 403	263	2 394	128
1999	4 681	235	2 538	120
2000	4 708	211	2 521	108
2001	4 829	263	2 598	130
2002	4 896	181	2 640	91
2003	5 014	158	2 687	81
2004	5 120	121	2 722	61

Source: UK Timber Statistics 2004.

1. Figures for 1995-2003 have been revised from Forestry Statistics 2004 in light of additional information received.

There was a total of 235 sawmills processing UK roundwood in 2004. The majority of these sawmills (123) were in England, a further 76 were in Scotland, 21 in Wales and 15 in Northern Ireland. 70% of sawmills produced less than five thousand m^3 sawnwood (softwood and hardwood).

Table 2.5 Number of sawmills in the United Kingdom

	2000	2001	2002	2003	2004
Number of active mills	304	280	259	251	235
Production[1]					
<1 000m^3	118	104	96	96	92
1 000-4 999m^3	107	96	87	82	73
5 000-9 999m^3	32	28	26	22	20
10 000-24 999m^3	19	24	24	23	22
25 000-49 999m^3	14	13	10	12	10
≥50 000m^3	14	15	16	16	18
Country					
Scotland	88	86	82	80	76
England	174	152	139	134	123
Wales	27	27	23	22	21
N Ireland	15	15	15	15	15

Source: UK Timber Statistics 2004.

1. Categories are based on m^3 total (softwood and hardwood) sawnwood production.

Pulp and paper mills

The information in Tables 2.6 and 2.7 relates only to mills which use UK grown roundwood in the production of paper (integrated pulp and paper mills). These mills also use recycled paper (200 000 tonnes in 1997) and recycled cardboard (50 000 tonnes in 1997). [Source: Forestry Industry Handbook 1998]

Integrated pulp and paper mills in the UK consumed a total of 0.7 million green tonnes of UK roundwood in 2004 (mainly softwood) and a further 0.1 million green tonnes of sawmill products.

Table 2.6 Inputs to integrated pulp and paper mills[1]

thousand green tonnes

Year	UK roundwood[2]		Sawmill products[3]		Total[4]	
	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
1995	1106	196	284	4	1 394	200
1996	853	202	305	0	1 158	202
1997	940	198	279	0	1 239	198

Table 2.6 Inputs to integrated pulp and paper mills[1]

thousand green tonnes

Year	UK roundwood[2]		Sawmill products[3]		Total[4]	
1998	844	180	277	0	1 136	180
1999	660	191	295	0	964	191
2000	695	200	308	0	1 004	218
2001	668	209	323	0	991	209
2002	696	210	307	0	1 003	210
2003	704	215	234	0	938	215
2004	483	214	143	0	626	21

Source: UK Timber Statistics 2004.

1. This table excludes inputs of recycled paper and cardboard.
2. UK roundwood includes all materials from forest operations.
3. Sawmill products include peeled and unpeeled chips, sawdust, slabwood, shavings, postplant chips and peelings.
4. Includes inputs from imported roundwood and chips.

Figure 2.2 Inputs to integrated pulp and paper mills

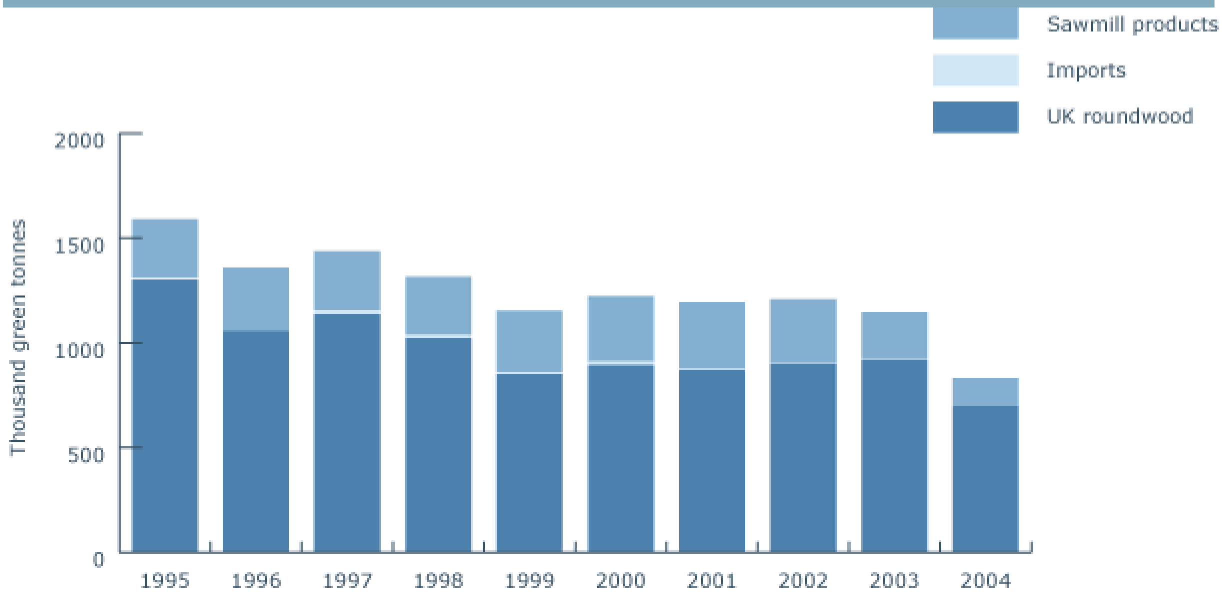


Table 2.7 gives information on the country of origin of the UK grown roundwood for all integrated pulp and paper mills in the UK. Figures are not available for the quantity broken down by the country in which the mill is located, which could disclose data for individual mills.

Over one half of UK grown roundwood used in integrated pulp and paper mills in 2004 was obtained from Scotland (60%). A further 38% was obtained from England and the remaining 2% from Wales.

Table 2.7 UK grown roundwood used in integrated pulp and paper mills

thousand green tonnes

Year	UK		England		Scotland		Wales		N Ireland	
	Hardwood (HW)	Softwood (SW)	HW	SW	HW	SW	HW	SW	HW	SW
1995	196	1 106	188	197	0	659	8	250	0	0
1996	202	853	194	175	0	478	8	200	0	0
1997	198	940	190	161	0	598	8	181	0	0
1998	180	844	..	..	..	..	..	..	0	0
1999	191	660	177	107	0	383	14	170	0	0
2000	200	695	188	86	0	479	12	130	0	0
2001	209	668	200	86	0	454	9	128	0	0
2002	210	696	200	98	0	448	10	150	0	0
2003	215	704	196	87	0	466	19	151	0	0
2004	214	483	200	67	0	416	14	0	0	0

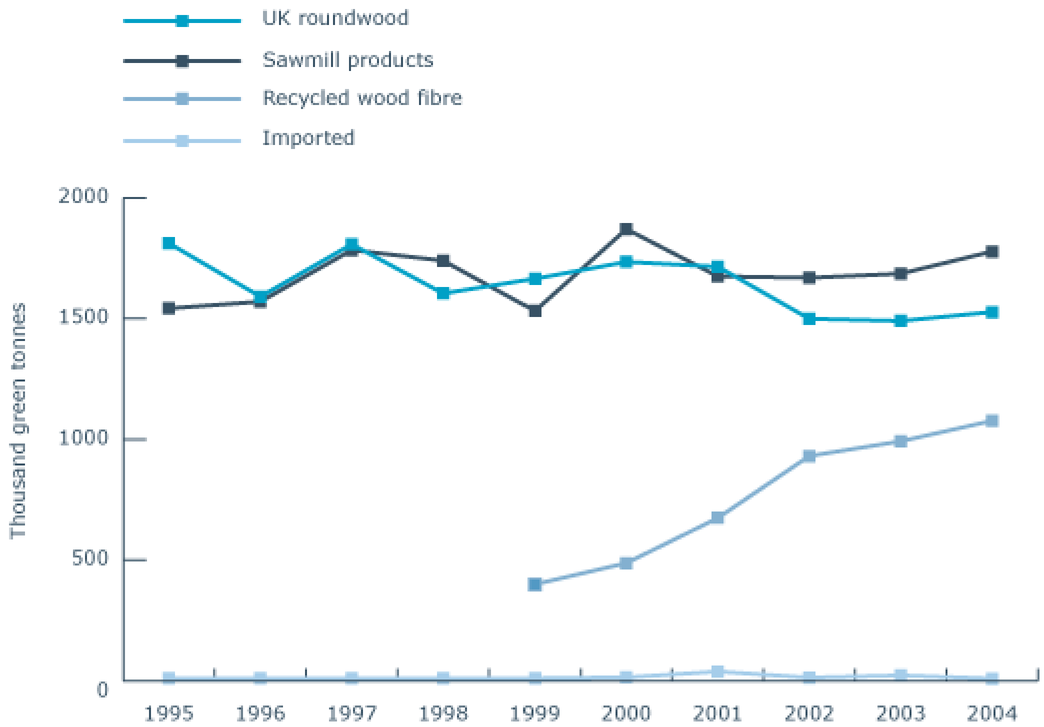
Source: UK Timber Statistics 2004.

Woodbased panel products

Woodbased panels are oriented strand board (OSB), wood chipboard and cement bonded particleboard (which are all types of particleboard), and medium density fibreboard (MDF) and other fibreboard (which are both types of fibreboard).

Sawmill products accounted for 40% of all inputs to woodbased panel mills in 2004. A further 35% was obtained from UK roundwood and 25% from recycled wood fibre.

Figure 2.3 Inputs to woodbased panel mills



Source: UK Timber Statistics 2004.

Table 2.8 shows the inputs used in the production of all types of woodbased panels in the United Kingdom.

Table 2.8 Inputs to woodbased panel production

thousand green tonnes

Year	UK roundwood[1]		Sawmill products[2]		Imported[3]		Total		
	Hardwood (HW)	Softwood (SW)	HW	SW	HW	SW	HW	SW	Recycled wood fibre[4]
1995	113	1 699	21	1 521	0	10	134	3 230	..
1996	91	1 500	28	1 542	0	10	119	3 052	..
1997	118	1 690	40	1 744	0	10	158	3 444	..
1998	77	1 527	29	1 711	0	10	106	3 248	..
1999	52	1 613	10	1 522	0	10	62	3 145	400
2000	50	1 685	0	1 871	0	14	50	3 570	488
2001	35	1 680	0	1 675	25	13	60	3 368	675
2002	43	1 456	0	1 669	0	13	43	3 138	932

Table 2.8 Inputs to woodbased panel production

thousand green tonnes

Year	UK roundwood[1]		Sawmill products[2]		Imported[3]			Total	
2003	4	1 486	4	1 682	0	22	8	3 190	993
2004	2	1 525	0	1 778	0	9	2	3 312	1 078

Source: UK Timber Statistics 2004.

1. UK roundwood includes all material from forest operations.
2. Sawmill products include peeled and unpeeled chips, sawdust, slabwood, shavings, postplant chips and peelings.
3. Imports include roundwood, wood products and products from imported wood.
4. Recycled wood fibre is wood fibre recovered from both pre- and post-consumer wood waste for use in woodbased panel production.

. denotes data not available

Miscellaneous uses of UK wood

Data for softwood fencing are collected by the Forestry Commission in an annual survey of round fencing manufacturers. Many of the other uses are not covered by survey or administrative sources, and the values are estimates made by representatives of the wood processing industries.

A total of 274 thousand green tonnes of UK softwood and an estimated 30 thousand green tonnes of UK hardwood were consumed by round fencing manufactures in 2004. Other miscellaneous uses accounted for a further 356 thousand green tonnes of roundwood (softwood and hardwood).

Table 2.9 Miscellaneous uses of UK roundwood[1]

thousand green tonnes

Year	Fencing		Other[2,3]		Total	
	Hardwood (HW)	Softwood (SW)	HW	SW	HW	SW
1995	30	435	176	135	206	570
1996	30	385	176	135	206	520
1997	30	371	176	134	206	505
1998	30	401	176	134	206	535
1999	30	406	176	133	206	539
2000	30	347	176	153	206	500
2001	30	346	176	154	206	500
2002	30	290	176	155	206	445
2003	30	266	176	170	206	436
2004	30	274	176	180	206	454

Source: UK Timber Statistics 2004.

1. Figures have been revised from Forestry Statistics 2004 in light of additional information received.
2. Includes fuelwood, shavings, poles and woodwool.

3. These figures are estimated by, or partly composed of estimates made by, the Expert Group on Timber and Trade Statistics.

Certification

Forest certification assesses forest management practices against an agreed standard and awards a label to those forest products that meet the standard. In order for products to achieve certification, both forest manage-ment practices and the Chain of Custody, which tracks timber from forest to retail outlet, must be assessed.

1.2 million hectares of woodland in the UK were certified in March 2005, mostly under the Forest Stewardship Council. This represented 43% of the total UK woodland area, but varied from 30% in England to 75% in Northern Ireland.

Table 2.10 Woodland area certified in March 2005

	UK	England	Scotland	Wales	N Ireland
Total woodland area (000 ha)	2 825	1 119	1 334	286	85
Certified area (000 ha)	1 217	333	696	125	64
No. certificates applying to woodland in one country	36	22	10	3	1
No. certificates applying to woodland in more than one country	10				
Total no. certificates	**46**				

Source: Forest Stewardship Council, Programme for Endorsement of Forest Certification (PEFC), Forestry Commission.

1. Where possible, Table 2.10 uses the total woodland certified, rather than the total land certified. The Forestry Commission areas included in the totals are the latest areas, as shown in Table 1.1, rather than the areas shown on certificates.

Respondents to Forestry Commission surveys were asked to report on volumes certified. Almost three quarters of non-FC/FS softwood removals in 2004 were from certified sources. Over three quarters of sawmills' roundwood consumption and almost two thirds of sawnwood production by sawmills in 2004 was certified. For round fencing manufacturers, over one half of total softwood consumption in 2004 was certified.

Table 2.11 Percentage of volume certified

% certified volume

	2002	2003	2004
Removals[1]			
Softwood from non-FC/FS woodland	40	54	70
Sawmills			
Consumption (softwood and hardwood)	65	67	80
Production (softwood and hardwood)	62	50	64
Round fencing manufacturers			
Consumption (softwood)	14	36	58

Source: UK Timber Statistics 2004.

1. For all removals from FC/FS woodland, the source is certified.

Sawmills and round fencing manufacturers were also asked whether they held a Chain of Custody certificate. Over one third of sawmills who provided data in 2004 reported that they held a Chain of Custody certificate. However, this proportion varied with size of mill, from just 20% of mills producing less than 5 thousand m^3 sawnwood to around 95% of those producing 25 thousand m^3 sawnwood or more. Around one quarter of round fencing manufacturers reported holding a Chain of Custody certificate.

Table 2.12 Chain of Custody certificates[1] - 2004

	Mill holding certificate	Mills without certficate	Certification status not reported	Total
Sawmills				
Production[2]				
<5 000m^3	17	61	6	84
5 000-24 999 m^3	12	15	0	27
≥25 000 m^3	20	0	1	21
All mills	49	76	7	132
Round fencing manufacturers				
All mills	15	36	5	56

Source: UK Timber Statistics 2004.

1. Mills responding in 2004. Accounts for around three quarters of total production for sawmills and almost 60% of total consumption by round fencing manufacturers.
2. Production categories are based on total sawnwood production.

Certification was also a topic in the 2005 Public Opinion of Forestry, a survey of 4000 adults across Great Britain (see chapter 5 for further details on this survey). Respondents were first asked if they had been shopping for wood products in the last few years. Those who had (44%), were then asked if they recognised either the FSC or PEFC symbols. Over one third (38%) of those who had been shopping for wood products in the last few years said that they recognised the FSC symbol and 8% said that they recognised the PEFC symbol. 56% of respondents did not recollect seeing either symbol.

Table 2.13 Public Opinion of Forestry: Respondents who had seen the FSC or PEFC logos on wood products

percent of base

	2003	2005
FSC logo	31	38
PEFC logo	8	8
None	61	56
Don't know	4	3

Base: Respondents who had been shopping for wood products: 1930 in 2003 (UK), 1752 in 2005 (GB).

Source: UK Public Opinion of Forestry 2003, GB Public Opinion of Forestry 2005 (not National Statistics).

1. Includes multiple responses.

Number of establishments in the primary wood processing industries

Table 2.14 shows the number of primary wood processors, according to the sampling frames used for Forestry Commission surveys of establishments using UK timber. The figures in Table 2.14 do not correspond with the VAT registration information given in Figures 2.4-2.7. They count establishments (sites) rather than businesses and include those that do not need to register for VAT. They also have a different basis for classification, so some businesses which are excluded from Figs 2.4-2.7 because of their VAT classification are included in this table (typically businesses where primary wood processing is a small part of their total activity), and some businesses included in Figs 2.4-2.7 are excluded here (usually because they do not use UK-grown timber).

Table 2.14 Number of establishments in the primary wood processing industries using UK grown roundwood[1]

Year	Sawmills	Pulp and paper mills	Woodbased panel mills	Round fencing manufacturers	UK total[2]
1995	456	4	11	140	611
1996	409	4	11	128	552
1997	381	4	11	112	508
1998	348	4	11	108	471
1999	326	4	10	99	439
2000	304	4	10	94	412
2001	280	4	10	89	383
2002	259	4	10	76	349
2003	251	3	8	71	333
2004	235	3	8	71	317

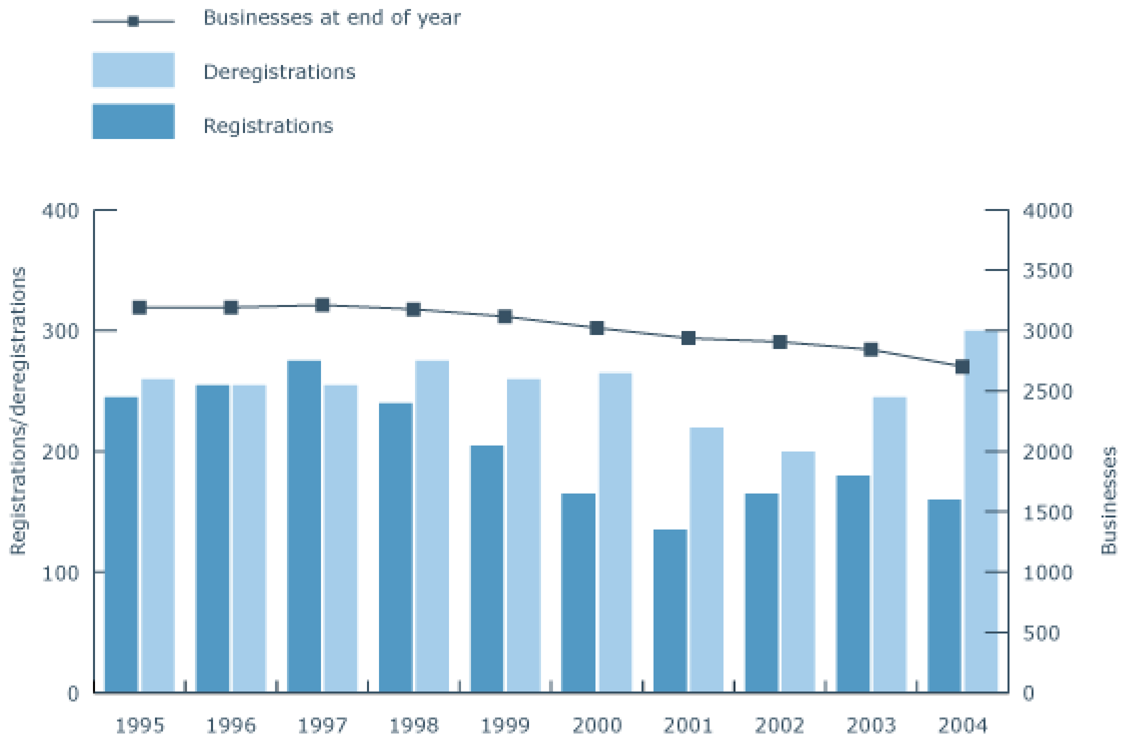
1. Figures have been revised from Forestry Statistics 2004 in light of additional information received.
2. A single mill may be recorded twice, as a sawmill and a round fencing manufacturer.

VAT-registered businesses involved in forestry and primary wood processing

The Standard Industrial Classification (SIC) is the United Kingdom's classification of business activities. The main heading including forestry businesses is 020: Forestry and logging. The main headings for primary wood processing are 201: Sawmilling and planing of wood, impregnation of wood; 202: Manufacture of veneer sheets; manufacture of plywood, laminboard, particleboard, fibreboard and other panels and boards; and part of 211: Manufacture of pulp, paper and paperboard. All these headings potentially include businesses not traditionally regarded as forestry or primary wood processing, and some businesses which are traditionally included in forestry or primary wood processing are excluded as they are classified to other headings of the SIC.

Charts 2.4-2.7 (using data from Business start-ups and closures: VAT registrations and deregistrations 1994-2003 published by the Small Business Service of the Department for Trade and Industry) show start-ups and closures and the size of the business population in these classifications. Because businesses with turnover below the VAT threshold are not required to register, many of the smallest businesses are not included in these figures. The figures are also not restricted to businesses using domestically produced timber but include businesses wholly using imports.

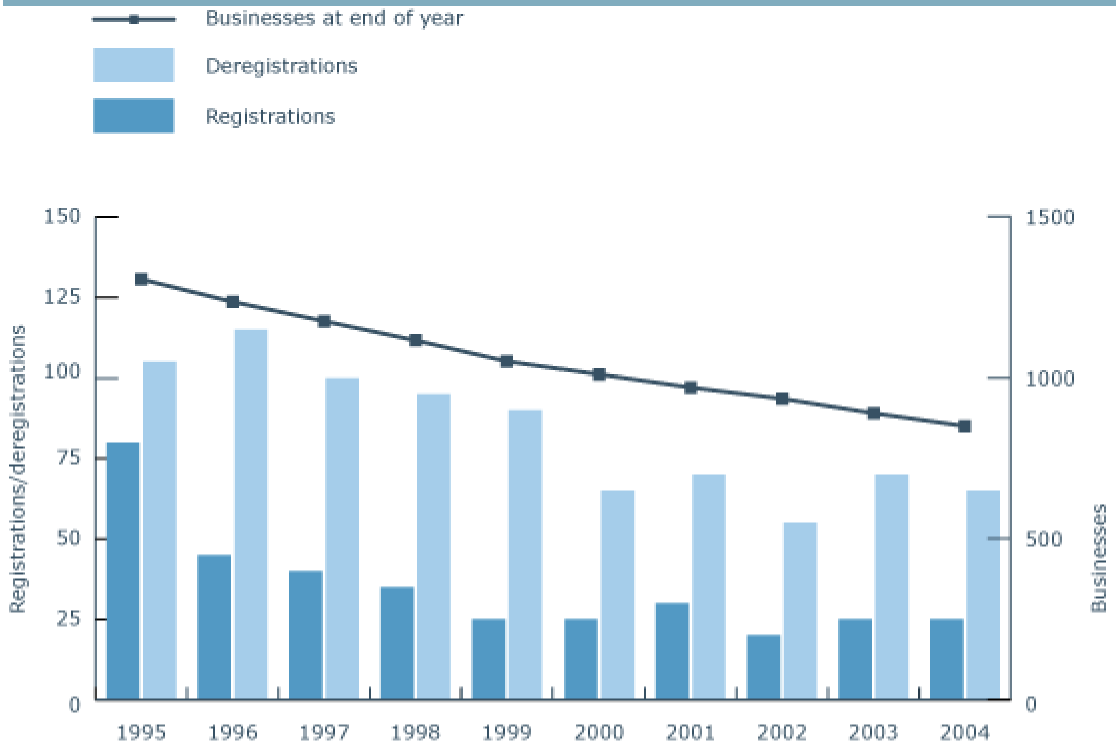
Figure 2.4 Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 020: Forestry and logging[1]



Source: Business start-ups and closures: VAT registrations and deregistrations 1994-2004.

1. Figures have been revised from Forestry Statistics 2004 to reflect revised data published by DTI.

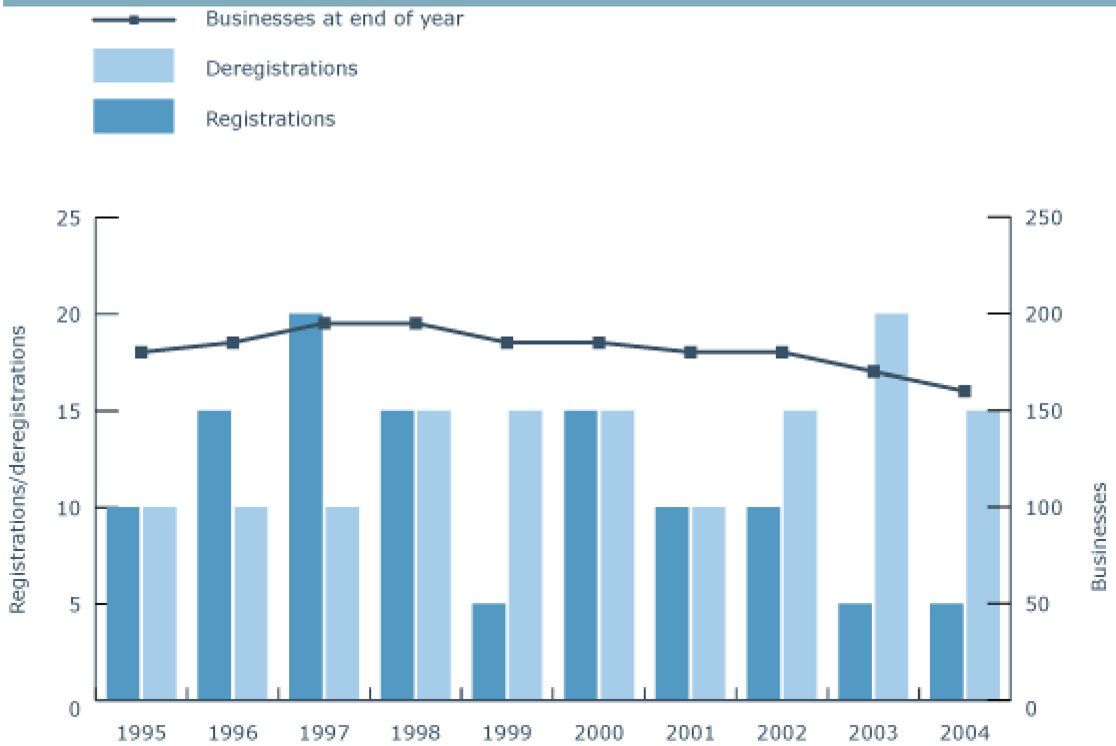
Figure 2.5 Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 201: Sawmilling and planing of wood, impregnation of wood[1]



Source: Business start-ups and closures: VAT registrations and deregistrations 1994-2004.

1. Figures have been revised from Forestry Statistics 2004 to reflect revised data published by DTI.

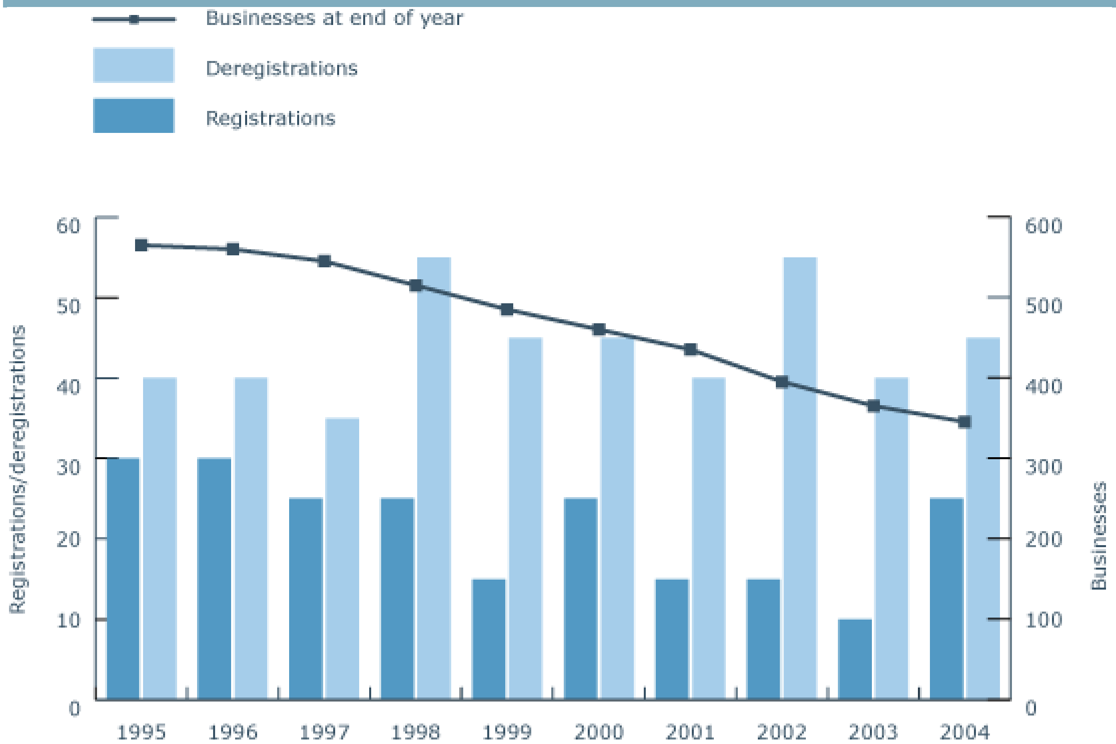
Figure 2.6 Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 202: Manufacture of veneer sheets; manufacture of plywood, laminboard, particleboard, fibreboard and other panels and boards[1]



Source: Business start-ups and closures: VAT registrations and deregistrations 1994-2004.

1. Figures have been revised from Forestry Statistics 2004 to reflect revised data published by DTI.

Figure 2.7 Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 211: Manufacture of pulp, paper and paperboard[1,2]



Source: Business start-ups and closures: VAT registrations and deregistrations 1994-2004.

1. Figures have been revised from Forestry Statistics 2004 to reflect revised data published by DTI.
2. Only integrated pulp and paper-mills are normally included in primary wood processing.

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

Imports, exports & apparent consumption of wood products

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

A large proportion of the wood and wood products consumed in the United Kingdom are imported from a range of different countries.

Information on imports and exports comes from the Overseas Trade Statistics compiled by HM Revenue & Customs. The two sources are surveys of European Union (EU) internal trade (Intrastat) and customs data for trade with non-EU countries.

Quantities are given as wood raw material equivalent underbark, that is the amount of timber (underbark) required to produce these products. The factors used here differ from the Conversion factors used to convert to standing volumes overbark.

Apparent consumption is the amount of timber (measured as raw wood material equivalent underbark) used as wood and wood products by people and industries in the United Kingdom. It is calculated as total United Kingdom production plus imports, minus exports. This total does not include any allowance for recycled wood and paper that is recovered for use within the United Kingdom, but is reduced by the substantial net exports of recovered paper (see Table 3.3). Apparent consumption also differs from actual consumption by the extent of changes in the level of stocks. It is not practical to collect information on actual consumption.

UK production of roundwood totalled 8.6 million m^3 WRME underbark in 2004. A further 52.0 million m^3 WRME underbark of wood and wood products were imported to the UK and 15.6 million m^3 WRME underbark were exported, giving an apparent consumption of 45.0 million m^3 WRME underbark.

Table 3.1 Apparent consumption of wood in the UK[1]

million m^3 WRME underbark

Year	UK production[2]	Imports	Exports	Apparent Consumption
1995	7.9	44.3	6.0	46.2
1996	7.5	45.1	5.4	47.2
1997	7.8	47.7	6.8	48.8
1998	7.6	46.8	7.0	47.4
1999	7.8	45.8	7.3	46.3
2000	7.8	47.8	7.4	48.2
2001	7.9	49.4	7.9	49.5
2002	7.8	48.8	9.3	47.3
2003	8.1	49.5	12.7	44.9
2004	8.6	52.0	15.6	45.0

Source: UK Overseas Trade Statistics and conversion factors to WRME.

1. Figures for 1995 to 2003 have been revised from Forestry Statistics 2004 in light of additional information received on UK production and revisions to import and export data.
2. UK production of roundwood is estimated from deliveries to wood processing industries, as in Table 2.3

UK production accounted for around one quarter of the UK sawnwood market, and around one half of the UK woodbased panel and paper markets.

Table 3.2 Apparent consumption of wood products[1,2] in the UK - 2004

Product	Unit	UK production	Imports	Exports	Apparent Consumption
Sawnwood		**2 782**	**8 647**	**370**	**11 059**
Coniferous	1000 m^3	2 722	7 871	356	10 237
Non-coniferous		61	776	15	822
Woodbased panels		**3 533**	**3 786**	**511**	**6 808**
Veneer sheets	1000 m^3	0	29	5	25
Plywood		0	1 474	89	1 385
Particleboard		2 653	1 255	238	3 670
Fibreboard		880	1 027	179	1 729
Paper & paperboard		**6 240**	**7 442**	**1 547**	**12 135**
Newsprint		1 117	1 450	182	2 385
Other graphic papers		1 515	3 950	580	4 885
Sanitary and household papers	1000 mt	806	156	28	935
Packaging materials		2 230	1 809	731	3 307
Other paper & paperboard		572	78	26	624

Source: UK Overseas Trade Statistics and UK Timber Statistics 2004.

1. Excludes other wood products, e.g. wood fuel and round fencing.
2. Excludes roundwood and intermediate products (e.g. pulp and sawmill products), to avoid double counting.

'Wood and wood products' in Table 3.3 make up most of the following divisions of the Standard International Trade Classification (SITC).

- 24 (cork and wood)
- 25 (pulp and waste paper)
- 63 (cork and wood manufacturers (excluding furniture))
- 64 (paper, paperboard, and articles of paper pulp, of paper or of paperboard)

Around one third of the wood products imported to the UK in 2004 were imported as softwood (round and sawn). A further one third were imported as paper, 15% were imported as woodbased panels and 13% as pulp. Paper (24%) and recovered paper (56%) accounted for the majority of exports of wood products from the UK in 2004.

Table 3.3 UK imports and exports (WRME volumes)[1]

thousand m³ WRME underbark

	Wood (round and sawn)			Paper and paperboard			Total wood and wood products
	Softwood	Hardwood	Wood-based panels	Paper	Pulp	Recovered Paper	
Imports							
1995	12 536	1 432	5 150	15 930	8 447	677	44 172
1996	13 335	1 659	5 372	16 564	7 929	250	45 107
1997	13 977	1 614	5 970	17 803	8 171	211	47 746
1998	14 070	1 514	6 312	17 244	7 542	161	46 843
1999	13 479	1 417	6 369	16 992	7 370	171	45 797
2000	14 934	1 738	7 000	16 068	7 706	382	47 829
2001	15 028	1 844	7 294	18 211	6 928	141	49 446
2002	15 991	2 007	8 207	15 410	6 950	212	48 778
2003	17 212	2 428	7 965	15 101	6 512	280	49 499
2004	16 154	2 291	8 045	18 435	6 879	242	52 047
Exports							
1995	290	81	718	3 355	158	762	5 364
1996	201	82	756	3 407	55	912	5 414
1997	203	93	985	4 193	22	1 341	6 838
1998	300	367	956	4 004	98	1 240	6 964
1999	379	183	1 328	4 001	123	1 265	7 278
2000	474	261	1 180	3 834	32	1 653	7 434
2001	816	201	1 425	3 494	12	1 944	7 892
2002	813	163	1 507	3 339	22	3 435	9 280
2003	1 093	444	1 874	3 645	8	5 615	12 679
2004	1 317	294	1 536	3 765	10	8 690	15 611

Source: UK Overseas Trade Statistics and conversion factors to WRME.

1. Figures for 1999 to 2003 have been revised from Forestry Statistics 2004 to reflect revisions to import and export data.

In table 3.4 'associated products' are made up of the following SITC sub divisions which are excluded from wood and wood products in Table 3.3;

- 244 (cork, natural, raw and waste (including natural cork in blocks or sheets))
- 251.92 (pulps of other fibrous cellulosic material)
- 633 (cork manufacturers)
- 641.7 (paper, paperboard, cellulose wadding/webs of fibre, coated, impregnated, painted etc, excluding group 892, in rolls or sheets, not elsewhere specified)

- 641.9 (converted paper and paperboard not elsewhere specified)
- 642 (paper and paperboard cut to size or shape, and articles of paper or paperboard).

The value of wood and wood product imports (including associated products) in 2004 was £8.5 billion. Exports were valued at £2.6 billion.

Table 3.4 UK imports and exports (current prices)

£million

	Imports			Exports		
	Wood and wood products	Associated products	Total (Divs 24,25,63,64)	Wood and wood products	Associated products	Total (Divs 24,25,63,64)
1999	5 549	1 753	7 303	1 198	1 215	2 414
2000	5 998	1 880	7 878	1 238	1 252	2 491
2001	6 351	1 939	8 290	1 198	1 296	2 494
2002	5 718	1 949	7 667	1 145	1 267	2 412
2003	5 696	2 019	7 715	1 308	1 269	2 577
2004	6 409	2 078	8 487	1 426	1 196	2 622

Source: UK Overseas Trade Statistics.

1. Figures for 1999 to 2003 have been revised from Forestry Statistics 2004 to reflect revisions to import and export data.

Sweden, Latvia and Finland provided the majority of imports of sawn softwood to the UK in 2004. Sawn hardwood was most commonly imported from Latvia, USA and Estonia. UK imports of plywood tended to come from countried outwith the EU, such as Brazil, Malaysia and Indonesia, whilst most particleboard and fibreboard imports came from within the EU. Canada, Brazil and the USA were amongst the principal sources of wood pulp for the UK, whilst the majority of paper and paperboard imports originated in Finland, Sweden and Germany.

Table 3.5 Country of origin of wood imports to the UK 2004[1]

% of total UK imports (volume) in each category

	Sawn softwood	Sawn hardwood	Plywood	Particleboard	Fibreboard	Wood pulp	Paper and paperboard
Sweden	30	1	1	0	1	13	18
France	0	5	1	27	4	1	8
Ireland	3	1	1	11	24	0	0
Belgium	0	1	2	24	15	0	2
Finland	18	1	13	9	3	7	22
Germany	2	7	1	20	15	1	16
Spain	0	0	1	1	11	5	2
Other EU-15	2	5	1	7	6	5	13
Total EU-15[2]	**56**	**20**	**20**	**99**	**79**	**32**	**82**

Table 3.5 Country of origin of wood imports to the UK 2004[1]

% of total UK imports (volume) in each category

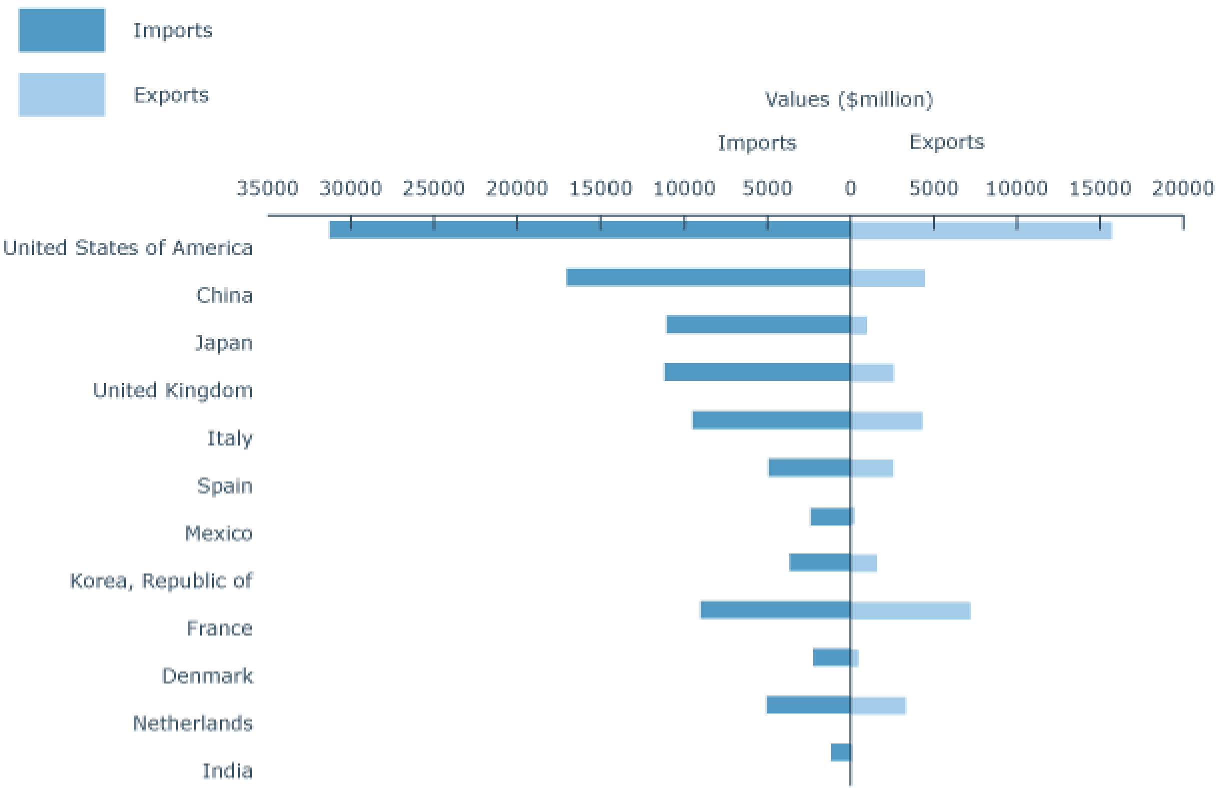
	Sawn softwood	Sawn hardwood	Plywood	Particleboard	Fibreboard	Wood pulp	Paper and paperboard
Latvia	22	30	4	0	0	1	0
Estonia	4	9	1	0	1	0	0
Poland	0	0	0	0	6	0	1
Other EU-25	4	2	0	0	2	0	0
Total EU-25[2]	**86**	**61**	**24**	**99**	**87**	**32**	**83**
Brazil	0	3	33	0	1	17	1
Canada	1	3	1	0	0	19	3
USA	0	5	13	0	0	0	0
Russia	10	4	4	0	0	1	2
Indonesia	0	0	10	0	0	0	0
China	0	1	7	0	0	0	0
Norway	1	0	0	0	1	3	7
Chile	1	0	2	0	1	7	0
Other non-EU	0	13	4	0	5	6	2
Total non-EU	**14**	**39**	**76**	**1**	**13**	**68**	**17**

Source: FAO and UK Overseas Trade Statistics.

1. Categories used above are those used by FAO in 'Forest Products Trade Flow Data', and are not fully consistent with those used in Tables 3.3-3.4.
2. EU-15 represents the 15 EU-member states to April 2004; EU-25 includes the 10 new member states from May 2004.

The UK was the fourth largest net importer of forest products in 2004, behind USA, China and Japan.

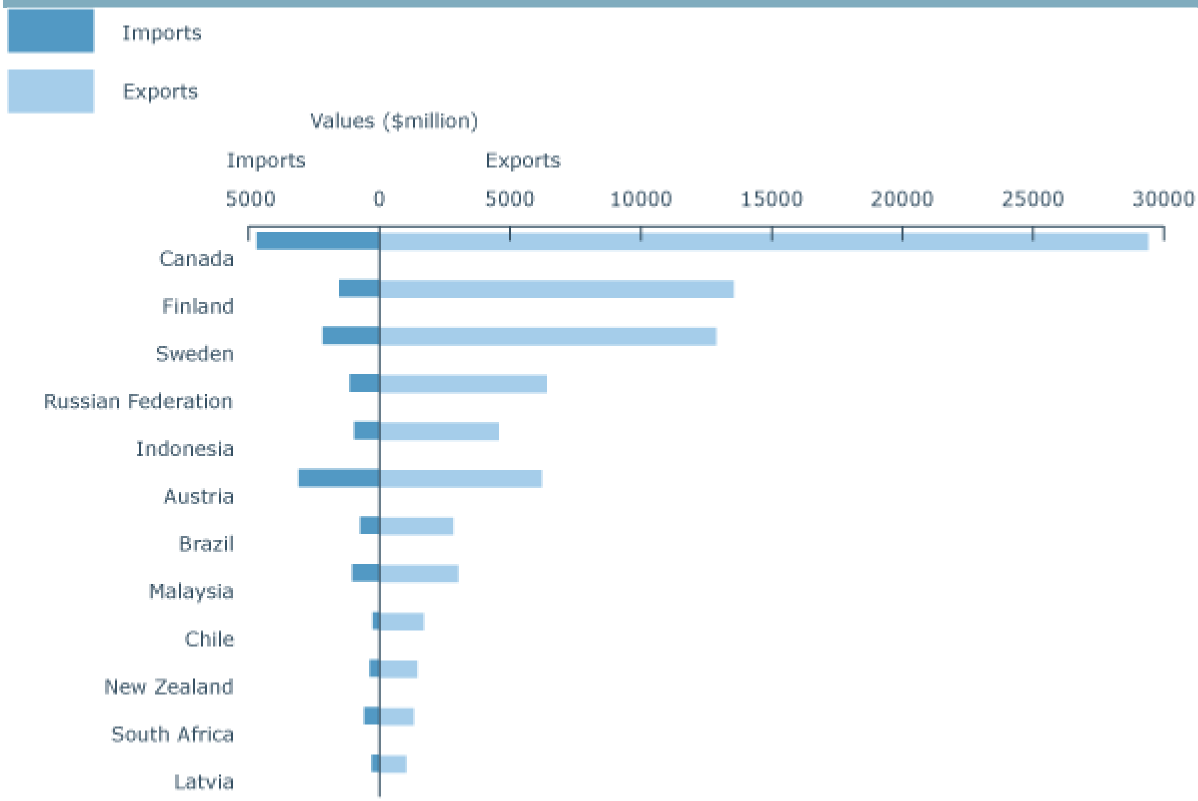
Figure 3.1 World trade in forest products: largest net importers, 2004



Source: FAO.

The largest net exporters of forest products in 2004 were Canada, Finland and Sweden.

Figure 3.2 World trade in forest products: largest net exporters, 2004



Source: FAO.

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

Environment

This section presents a range of information about the woodland environment, mostly using sources that are not National Statistics. More information on environmental aspects is included in the United Kingdom Indicators of Sustainable Forestry published in October 2002.

Protected woodland areas

The information in Tables 4.1-4.4 has been reproduced from *Protected Forest Areas in the UK* (not National Statistics). They have been derived from a variety of sources, and are unlikely to give a wholly accurate inventory of protected areas in the United Kingdom. The woodland categories used in Tables 4.1 and 4.3 are defined as:

- ASNW: (ancient semi-natural woodland) both ancient and semi-natural.
- PAWS: (plantation on an ancient woodland site) ancient in the sense of continuously wooded over a long period but not semi natural.
- OSNW: (other semi-natural woodland) semi natural but not ancient.

Ancient semi-natural woodlands tend to be richer in plants and animals than other woodland areas. The area of ASNW, which was one of the *Quality of Life Counts* indicators of sustainable development, has declined over the centuries and woodlands have become increasingly fragmented. It is estimated to total 326 thousand hectares, of which almost two thirds are in England, over one quarter are in Scotland and the remainder in Wales. Later estimates, produced by overlaying the Ancient Woodland Inventory on the National Inventory of Woodland and Trees give lower figures for ASNW.

Table 4.1 Areas of ancient and semi-natural woodland

thousands of hectares

	UK	GB	England	Scotland	Wales	N Ireland
ASNW	325.8	325.8	206.0	89.1	30.7	-
PAWS	224.1	224.1	135.1	59.1	29.9	-
OSNW	320.5	305.5	209.8	44.0	51.7	15.0
Total ancient	**549.9**	**549.9**	**341.1**	**148.2**	**60.6**	**-**
Total semi-natural	**646.3**	**631.3**	**415.8**	**133.1**	**82.4**	**15.0**

Source: Report 'Protected Forest Areas in the UK' (not National Statistics).

The types of statutory protection include:

- SAC: Special Area of Conservation;
- NNR: National Nature Reserve;
- SPA: Special Protection Area;
- SSSI: Site of Special Scientific Interest (ASSI in Northern Ireland)

In the pan-European classification of protected forest areas, 10 thousand hectares of woodland in the UK are in the highest categories 'non-intervention nature reserves' and 'wilderness areas in near-natural condition', estimated from combinations of these designations and objectives.

Table 4.2 Summary of woodland areas under different types of statutory protection

thousands of hectares

Type of protection	UK	GB	England	Scotland	Wales	N Ireland
SAC	47.0	47.0	23.8	22.1	1.0	0.04
SPA	1.3	1.3	-	-	1.3	-
NNR[1]	3.1	29.7	9.2	19.4	1.1	0.4
SSSI	128.7	126.7	79.8	38.0	8.9	2.0

Source: Report 'Protected Forest Areas in the UK' (not National Statistics).

1. The Scottish figure is the area of NNR managed under the WGS, and probably underestimates the total woodland in NNRs in Scotland; this has a knock-on effect on the Great Britain and United Kingdom totals.

Management practices can provide a degree of protection, even when it is not statutory protection. In the pan-European classification of protected forest areas, the UK has 135 thousand hectares of woodland with 'conservation through active management' and 646 thousand hectares with 'protection of landscapes and specific natural elements'. Table 4.3 shows some of these areas managed by the public and voluntary sectors, including over 80 thousand hectares of woodland managed by voluntary organisations such as the National Trust, Wildlife Trust, Woodland Trust and RSPB.

Table 4.3 Summary of areas under 'protective' ownership (non-statutory protection)

thousands of hectares

Type of protection		UK	GB	England	Scotland	Wales	N Ireland
Public Sector							
	ASNW	11.4	11.4	2.7	7.8	0.8	-
	PAWS	131.1	131.1	80.6	33.2	17.4	-
FC/FS	OSNW	49.0	49.0	25.0	16.5	7.5	-
	A/SSSIs	40.0	37.4	21.4	12.6	3.4	2.3
	FNRs	36.2	36.0	12.6	19.4	4.0	0.2
LNR		10.0	9.4	7.8	-	-	-
Voluntary Sector							
NT and NTS		28.0	26.0	18.9	4.0	3.0	2.1
Wildlife trusts		26.5	25.0	14.2	8.6	2.3	1.5
Woodland Trust		13.5	13.5	8.4	3.7	1.4	-
RSPB		14.2	13.4	7.6	4.6	1.2	0.8

Source: Report 'Protected Forest Areas in the UK' (not National Statistics).

The conditions attached to receiving payments under the Woodland Grant Scheme can also provide a degree of protection. Table 4.4 shows the total area under WGS management, which includes public (non-FC/FS) and voluntary sector as well as other non-FC/FS ownership. This table therefore includes the voluntary sector figures shown in Table 4.3.

Table 4.4 Summary of areas under WGS management (non-statutory protection) in GB

thousands of hectares

Type of protection	GB	England	Scotland	Wales
Total	918.6	445.4	421.6	51.6
Public (non-FC/FS)	45.3	37.0	5.7	2.6
Voluntary sector	67.3	44.7	19.4	3.2

Source: Report 'Protected Forest Areas in the UK' (not National Statistics).

Carbon Sequestration

Under the Kyoto protocol, additional woodland planted since 1990 contributes to the UK's carbon dioxide emissions target by removing carbon from the air. Table 4.5 (taken from the DETR publication *Climate Change: The UK Programme* (not National Statistics)) shows estimates and forecasts for the amount of carbon.

The forest sink measures the net annual change in the mass of carbon; it includes carbon accumulation in forests by woody biomass, soils, litter and wood products. For 2000, the net addition to carbon in woody biomass was around 2 MtC per year, while about 0.6 MtC per year were transferred to 'stores' in forest soil and litter, and 0.3 MtC per year to wood products. No wood products have yet been generated from new planting since 1990. The figures for the carbon sink due to expansion since 1990 are included in the total forest sink.

Table 4.5 Carbon sequestration

Million tonnes carbon per year

	Forest sink	Forest sink due to expansion of woodland due to trees planted since 1990
1990	2.6	0.0
1995	2.8	0.2
2000	2.9-2.9	0.3-0.3
2005	3.2-3.3	0.4-0.6
2010	3.1-3.4	0.6-0.8
2015	2.7-3.0	0.9-1.2
2020	2.4-2.8	1.2-1.6

Source: DETR publication: 'Climate Change: The UK Programme' (not National Statistics).

Tree species in British woodland

A list of tree species in British woodland, based on UK report for Forest Resources Assessment 2000.

Main species		Other species	
Common name	**Scientific name**	**Common name**	**Scientific name**
Native (indigenous) tree species occurring on forest and other wooded land			
Scots pine	*Pinus sylvestris*	Yew	*Taxus baccata*
Oak - sessile	*Quercus petraea*	Wild cherry (gean)	*Prunus avium*
Oak - pedunculate	*Quercus robur*	Bird cherry	*Prunus padus*
Ash	*Fraxinus excelsior*	Whitebeam	*Sorbus aria*
Downy birch	*Betula pubescens*	Elm	*Ulmus spp*
Silver birch	*Betula pendula*	Lime	*Tilia spp*
Beech	*Fagus sylvatica*	Field maple	*Acer campestre*
Rowan	*Sorbus aucuparia*	Willow	*Salix spp*
Holly	*Ilex aquifolium*	Aspen	*Populus tremula*
Hawthorn	*Crataegus monogyna*	Black poplar	*Populus nigra*
Common alder	*Alnus glutinosa*	Poplar	*Populus spp*
Hazel	*Corylus avellana*	Juniper	*Juniperis communis*
Elder	*Sambucus nigra*	Hornbeam	*Carpinus betulus*
		Crab apple	*Malus sylvestris*
		Service tree	*Sorbus torminalis*
		Whitebeams, etc.	*Sorbus spp*
Introduced tree species on forest and other wooded land			
Sitka spruce	*Picea sitchensis*	Other pines	*Pinus spp*
Lodgepole pine	*Pinus contorta*	Other spruces	*Picea spp*
Larch	*Larix spp*	Western red cedar	*Thuja plicata*
Douglas fir	*Pseudotsuga menziesii*	Cypresses	*Chamaecyparis spp*
Sycamore	*Acer pseudoplatanus*	Grand fir	*Abies grandis*
Norway spruce	*Picea abies*	Noble fir	*Abies procera*
Corsican pine	*Pinus nigra var maritima*	Silver fir	*Abies alba*
Western hemlock	*Tsuga heterophylla*	Japanese cedar	*Cryptomeria japonica*
		Coast redwood	*Sequoia sempervirens*
		Wellingtonia	*Sequoiadendron giganteum*
		Cedars	*Cedrus spp*
		Monkey puzzle	*Araucaria araucana*

A list of tree species in British woodland, based on UK report for Forest Resources Assessment 2000.

Main species		Other species	
		Other oaks	*Quercus spp*
		Roble	*Nothofagus obliqua*
		Raoul	*Nothofagus nervosa*
		Other alders	*Alnus spp*
		Filbert	*Corylus maxima*
		Horse chestnut	*Aesculus hippocastanum*
		Sweet chestnut	*Castanea sativa*
		English walnut	*Juglans regia*
		Norway maple	*Acer platanoides*
		Other maples	*Acer spp*
		Tree of heaven	*Ailanthus altissima*
		Balsam poplars	*Populus spp*
		Other willows	*Salix spp*
		London plane	*Platanus x hispanica*
		Peach	*Prunus persica*
		Almond	*Prunus dulcis*
		Other cherries	*Prunus spp*
		Apple	*Malus domestica*

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

Recreation

The Forestry Commission obtains information about woodland visits and visitors from the household surveys and on-site monitoring programmes.

Visits to woodland

The information in Table 5.1 is taken from *UK Day Visits Surveys* (1994, 1996 and 1998), and the *GB Day Visits Survey* (2002/3), which collected data about day trips from home during these years. The 1994, 1996 and 1998 surveys covered a calendar year, while the 2002/3 survey covered a 12-month period starting in March 2002. Despite the name of the early surveys, they did not cover visits by people living in Northern Ireland. Visits to overseas destinations were also excluded. Although the methodology used in the 2002/3 survey was largely the same as in earlier surveys, differences between practices in the two surveys may be responsible for some of the differences in results.

Table 5.2 shows the main characteristics of woodland visits in 2002/3. Similar information for the 1996 and 1998 surveys is provided in *Forestry Statistics 2002*.

The GB Day Visits Survey was a sample survey, so the results are subject to the effects of chance, depending on the sample achieved. Confidence limits apply to all results from the survey. For example, when confidence limits are included, the first line of data in Table 5.2 gives figures of 8%±10.9% in GB, 8%±11.0% in England, 9%±11.7% in Scotland and 7%±11.5% in Wales. Further information about confidence limits can be found in the *GB Leisure Day Visits Survey 2002/3 Technical Report.*

It is estimated that around 252 million day visits from home were made to woodland in GB in 2002/3. Of those surveyed in 2002/3, 8% had visited woodland in the previous 2-week period, while 40% had visited woodland in the last year.

Table 5.1 Number of day visits to woodland

millions of visits

	Journey starting point			
	GB	England	Scotland	Wales
1994	303	273	18	12
1996	346	308	26	11
1998	355	321	22	11
2002/03	252	222	18	12

Source: 1994, 1996 & 1998: UK Day Visits Survey, carried out by National Centre for Social Research (not National Statistics). 2002/3: GB Day Visits Survey, carried out by TNS Travel & Tourism (not National Statistics).

Table 5.2 Woodland visit characteristics - 2002/3

percentage[1]

		Journey starting point			
		GB	England	Scotland	Wales
Most recent woodland visit	Within last 2 weeks	8	8	9	7
	Within last year	40	40	36	40
Season of year	January-March	27	28	20	15

Table 5.2 Woodland visit characteristics - 2002/3

percentage[1]

		Journey starting point			
		GB	England	Scotland	Wales
	April-June	22	21	28	27
	July-September	38	39	28	35
	October-December	14	12	25	23
Day of week	Weekday	55	54	62	66
	Weekend	45	46	38	34
Duration of visit (round trip)	Up to 1 hour	39	41	23	25
	Over 1, up to 2 hours	28	28	29	31
	Over 2, up to 3 hours	10	9	16	13
	Over 3 hours	23	22	32	31
Distance travelled (round trip)	Up to 2 miles	26	27	21	22
	Over 2, up to 5 miles	36	38	24	29
	Over 5, up to 20 miles	22	21	31	30
	Over 20 miles	16	14	25	19
Group composition	One adult only	50	51	42	48
	Two adults only	20	18	31	31
	Three or more adults only	8	9	6	4
	Group with children	21	22	21	16
Perceived owner or manager	Local Authority	33	35	22	22
	Forestry Commission	21	20	27	29
	Voluntary organisation	7	7	7	9
	Private owner	23	23	19	21
	Other	6	7	3	7
	Don't know	9	8	22	12

Source: 2002/3 GB Day Visits Survey (not National Statistics).

1. 'Most recent woodland visit' figures refer to % of respondents, others refer to % of trips.

Scotland

In Scotland, the Day Visits Survey has been replaced by the Scottish Recreation Survey. This survey measures and collects details about the Scottish population's participation in outdoor recreation in Scotland. The Scottish Recreation Survey began in July 2003 and will run for ten years, with 1,000 adults being interviewed each month. The focus of the Scottish Recreation Survey and the methodology used is different from that of the Day Visits Survey, so results from the two surveys may not be comparable.

In 2003/4 an estimated 53 million recreation visits were made by the Scottish population to woodland in Scotland, either as a main destination or other destination; (22 million to Forestry Commission woodland, 31 million to other woodland). It is estimated that during 2004/5, 24 million recreational visits were made to Forestry Commission woodland and 26 million recreational visits were made to other woodland.

Table 5.3 shows the findings relating to recreation visits from the first two years of the Scottish Recreation Survey where the main destination was woodland.

Table 5.3 Woodland visit characteristics - Scotland

percentage[1]

		2003/04	2004/05
Main activity during visit	Walking	69	67
	Family outing	9	11
	Cycling	7	7
Main transport	Car/ van	64	63
	On foot	25	28
	Cycling	7	7
Distance travelled	Up to 2 miles	14	12
	Over 2, up to 5 miles	21	21
	Over 5, up to 20 miles	29	30
	Over 20 miles	36	37
Duration of visit (round trip)	Less than 1 hour	12	9
	1 - less than 2 hours	21	24
	2 - less than 3 hours	17	18
	3 hours or more	50	49
Frequency of visit to main destination	At least once a day	9	8
	Several times a week	13	10
	Once a week	10	10
	1-2 times a month	21	23
	Once every 2-3 months	17	17
	Less often	20	23
	First ever visit	10	9
Party composition (multiple responses possible)	Alone	16	18
	With family	60	56
	With friends	21	22
	Organised group	3	3
Accompanied by a dog?	Yes	31	29

Table 5.3 Woodland visit characteristics - Scotland

percentage[1]

		2003/04	2004/05
	No	69	71

Source: Scottish Recreation Survey - respondents whose main destination of last trip was woodland, carried out by TNS (not National Statistics).

1. Percentage of respondents whose main destination of last trip was woodland.

England

An England Leisure Visits Survey was carried out in 2005, and is due to report in late 2006.

Public Opinion

The Public Opinion of Forestry Survey is carried out every 2 years and covers people's attitudes to forestry and forestry-related issues, including visits to woodland.

The Public Opinion of Forestry Survey 2005 (not National Statistics) is a set of four surveys of representative samples of adults covering:

- 4000 across Great Britain;
- 1000 across Scotland;
- 1000 across Wales; and
- 1000 across Northern Ireland

The information in Figures 5.1 and 5.2 and Tables 5.4 and 5.5 is taken from the GB and country reports on the 2005 survey, which included comparisons with previous surveys. The survey was carried out in March 2005. Results from the GB survey of 4000 adults are accurate to within +/-2.3% for questions where all respondents gave an answer.

In the 2005 survey, 65% of respondents said they had visited woodland in the last few years for walks, picnics or other recreation.

Table 5.4 Woodland visitors

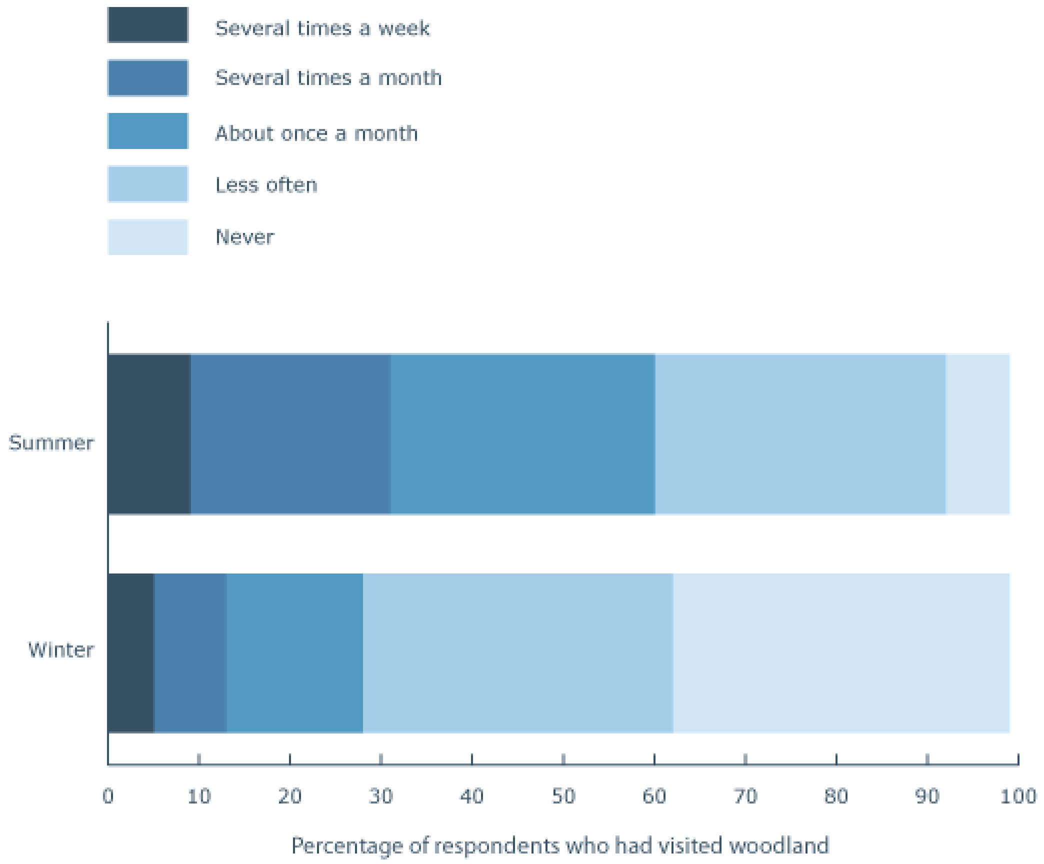
% of respondents

	UK	England	Scotland	Wales	N Ireland
Visited woodland in last few years	65	65	50	69	67

Source: Public Opinion of Forestry Survey 2005 (not National Statistics).

Those who had visited woodland were asked how frequently they had visited during the previous summer and winter. Figure 5.1 shows that the respondents visited much more often during the summer, with 60% visiting at least once a month in summer 2004 compared with 28% in winter 2004/5.

Figure 5.1 Frequency of visits to woodland



Source: Public Opinion of Forestry Survey 2005 (not National Statistics).

Respondents were also asked who they thought owned any of the forests or woodlands they had visited (Table 5.5). Voluntary bodies (e.g. National Trust, Woodland Trust) and the Forestry Commission/Forest Enterprise were the most popular responses (more than one response was possible for this question).

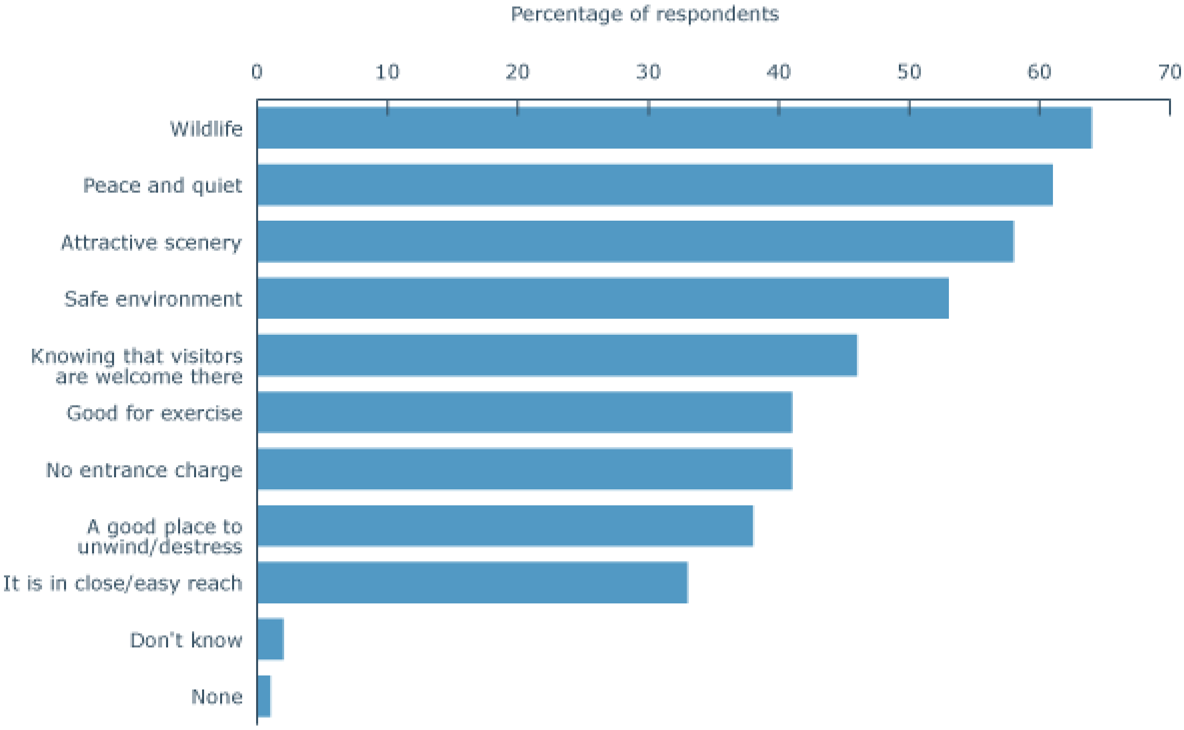
Table 5.5 Ownership of woodland visited

	% of respondents who had visited woodland
Forestry Commission/Forest Enterprise	36
Voluntary bodies	49
National Trust/National Trust for Scotland	*40*
Woodland Trust	*17*
Other voluntary body	*3*
Local authorities	30
Private owners	18
None/Don't know	17

Source: Public Opinion of Forestry Survey 2005 (not National Statistics).

Respondents to the survey were asked to identify the factors that were important to them when choosing to visit a woodland. Wildlife (64%), peace and quiet (61%), attractive scenery (58%) and a safe environment (53%) were the most frequently stated reasons.

Figure 5.2 Factors important when choosing to visit a woodland



Source: Public Opinion of Forestry Survey 2005 (not National Statistics).

On-Site Visitor Monitoring

Until 2002, a visitor monitoring programme (not National Statistics) was carried out at selected Forestry Commission woodland sites in England, Scotland and Wales. Year-on-year changes in visitor numbers were estimated by the Trends Index, which used data from traffic counters and other counters (Visitor Monitoring Trends Index Report). Information about visitors and their views on facilities were collected by on-site visitor surveys and the results summarised in Forest Visitor Surveys.

In 2002 and 2003, the Forestry Commission developed new visitor monitoring systems to replace the existing national visitor monitoring programme. The "All Forests Visitor Monitoring" survey provides more accurate estimates of the number of visits to Forestry Commission woodland, whilst continuing to gather information on the profile of visitors. This survey has been adopted in Wales (over a 1 year period) and Scotland (over a 3 year period), with surveying starting in 2004. The "Quality of Experience" survey combines quantitative and qualitative methods to measure the quality of visitor experience at a site. This survey was adopted in England in 2004 and in Wales in 2006, with 5-6 surveys now being carried out per year at selected sites. Reports from these surveys are published on the Forestry Commission website when results become available.

Northern Ireland

In Northern Ireland in 2005-06, 433 thousand people visited those Forest Service sites where an admission charge was made.

Table 5.6 Day visitors to Northern Ireland Forest Service sites[1]

thousands of people visiting sites

Year (ending 31/3)	N Ireland
1996-97	537
1997-98	458
1998-99	382
1999-00	403

Table 5.6 Day visitors to Northern Ireland Forest Service sites[1]

thousands of people visiting sites

Year (ending 31/3)	N Ireland
2000-01	402
2001-02	403
2002-03	460
2003-04	446
2004-05	508
2005-06	433

Source: Forest Service.

1. Only covers sites for which an admission charge is made.

Woodland recreation facilities

Forest Parks are areas of Forestry Commission land which are of national importance for recreation. Recreation facilities are also available at many smaller woodland sites. Information is only available for Forestry Commission woodland, but many woodland sites managed by local authorities, voluntary organisations, and other private owners also provide recreation facilities. Forest Parks cover around 145 thousand hectares in Scotland, 135 thousand hectares in England and around 16 thousand hectares in Wales. The largest is Galloway Forest Park, which covers a total area of 77 thousand hectares, followed by Kielder Forest Park, at 60 thousand hectares.

Table 5.7 Size of Forest Parks

		hectares
England	New Forest	27 000
	Forest of Dean	11 000
	Delamere	1 100
	Sherwood Pines	1 300
	Thetford	19 000
	North Riding	12 000
	Whinlatter	1 200
	Grizedale	2 700
	Kielder	60 000
	Total England	**135 300**
Scotland	Glenmore	3 600
	Tay	17 000

Table 5.7 Size of Forest Parks		
		hectares
	Queen Elizabeth	20 000
	Argyll	21 000
	Galloway	77 000
	Tweed Valley	6 400
	Total Scotland	**145 000**
Wales	Afan Argoed	6 500
	Coed-y-Brenin	3 100
	Gwydyr	6 100
	Total Wales	**15 700**

Source: Forestry Commission.

Table 5.8 presents information on Forestry Commission recreation facilities and activities that were included on the Forestry Commission website in August 2006. A total of 653 sites were featured on the website: 294 (45%) in Scotland, 242 (37%) in England and 117 (18%) in Wales.

84% of sites had parking facilities and 76% included walking activities.

Table 5.8 Forestry Commission recreation facilities and activities[1,2] - 2006

as at August 2006

Facility	GB	England	Scotland	Wales
Total sites on FC website	**653**	**242**	**294**	**117**
Facilities				
Parking - Free	**487**	178	230	79
Parking - Paid	**63**	39	12	12
Information	**244**	113	110	21
Easy Access	**152**	92	41	19
Toilet	**147**	74	56	17
Refreshments	**83**	53	22	8
Visitor Centre	**54**	28	20	6
Shop	**39**	23	11	5
Activities				
Walking	**495**	177	235	83
Cycling	**253**	108	108	37
Picnic	**247**	115	91	41

Table 5.8 Forestry Commission recreation facilities and activities[1,2] - 2006

as at August 2006

Facility	GB	England	Scotland	Wales
Horse Riding	**187**	71	58	58
Wildlife Activities	**130**	66	53	11
Education	**110**	55	41	14
View Point	**92**	27	53	12
Heritage	**67**	25	37	5
Fishing	**57**	23	20	14
Orienteering	**55**	33	15	7
Play Area	**52**	29	17	6
Barbecue	**52**	32	6	14
Camping	**35**	21	11	3
Arts	**30**	17	13	0
Forest Drive	**26**	15	10	1
Arboretum	**14**	7	3	4
Watersports	**9**	4	3	2
Skiing	**1**	0	1	0

Source: Forestry Commission.

1. Number of sites where a given facility or activity is present. These data are not directly comparable with numbers published for years before 2003.
2. A small number of facilities or activities are double counted as they appear more than once in the database used for the website.

Community Forests

England's 12 Community Forests are the product of a partnership between the Forestry Commission, the Countryside Agency and a host of other local and national partnerships. Since their inception in 1991, the Community Forests have helped to revitalise areas around many of England's towns and cities, delivering economic, social and environmental benefits to local communities.

Table 5.9 provides information on the 12 Community Forests in England and five other community forestry initiatives in Great Britain. These 17 community forests cover a land area of 1.1 million hectares. A total of 27 thousand hectares of new planting had been achieved by March 2006. This has increased the woodland cover in these forests from an initial 6% to 9% of the total area by March 2006.

Table 5.9 Community Forests

Name of Forest	Land area[1] (ha)	Initial woodland area (ha)	Initial % woodland cover	Target new planting (ha)	Achieved new planting to Mar 2006 (ha)	Population[2] (millions)
Community Forests						
Forest of Avon	57 300	3 380	6	6 726	605	1
Forest of Mercia	23 000	1 344	6	5 656	706	4
Forest of Marston Vale	15 800	569	4	4 120	964	1
Great North Forest	24 870	1 970	8	4 000	1 236	1
Great Western Community Forest	39 000	1 170	3	7 588	1 242	1
Greenwood Community Forest	43 800	4 530	10	5 750	1 283	2
Mersey Forest	92 500	3 700	4	8 140	2 833	4
Red Rose Forest	76 000	2 960	4	10 000	1 331	4
South Yorkshire	50 530	3 800	8	3 670	620	2
The Tees Forest	34 970	2 410	7	5 870	1 159	1
Thames Chase Community Forest	10 406	824	8	2 260	496	5
Watling Chase Community Forest	18 800	1 690	9	1 930	293	3
Other community forestry initiatives						
Black Country Urban Forest	36 000	364	1	1 000	370	1
Central Scotland Forest	160 000	17 000	11	17 000	7 951	1
ELWOOD (East Lancashire)	126 000	10 691	8	1 000	526	0
The National Forest	50 200	3 010	6	13 554	5 434	10
White Rose Forest	202 100	9 100	5	12 126	238	2
Total	**1 061 276**	**68 512**	**6**	**110 390**	**27 288**	

Source: Forestry Commission.

1. Area is total area designated as extent of Community Forest. Only a limited proportion of this will ever be covered by trees.
2. The population is usually the population living within 20 km. In a few cases however, it is the population of the area served, which may represent a larger area (e.g. those living within a 90 minute drive for the National Forest).
3. New planting figures for Central Scotland Forest in 2005-06 are not yet available. These figures are the new planting achieved to March 2005.

Employment

This section contains information on employment in forestry and wood processing.

Forest Employment Survey

Tables 6.1 to 6.3 show estimates obtained from the 1998/9 employment survey (not National Statistics). The report *1998/9 Forest Employment Survey*, together with more detailed regional breakdowns, is available on the Forestry Commission website.

Total employment (including self-employemt) in the forestry and primary wood processing industries in Great Britain in 1998-99 was estimated to be around 30 thousand full-time equivalents. Around one half were based in England, 36% in Scotland and 14% in Wales. 36% were employed working for primary wood processing industries, 29% for private woodland owners, 16% for forestry companies and contractors and 13% for the Forestry Commission.

Table 6.1 Employment in forestry and primary wood processing industries 1998/9

full-time equivalents

Employer[1]	GB	England	Scotland	Wales
Forestry Commission	3 909	1 331	2 011	567
Private woodland owners	8 425	4 242	3 196	987
Forestry companies and contractors	4 598	2 077	2 223	298
Wood processing industries	10 628	5 581	2 917	2 130
Other employers	1 972	1 508	347	117
Total	**29 532**	**14 739**	**10 694**	**4 099**

Source: Forest Employment Survey 1998/9 (not National Statistics).

1. Figures include work by contractors and self-employment as well as employees.

Around 43% of employment was based in the forest, mainly in harvesting (16% of all employment), maintenance (11%) or establishment (9%). Processing accounted for the majority of non-forest employment (38% of all employment).

Table 6.2 Employment in forestry and primary wood processing by activity 1998/9

full-time equivalents

Activity	GB	England	Scotland	Wales
Forest nurseries	624	421	201	2
Establishment	2 529	1 088	1 189	252
Maintenance	3 364	1 680	1 304	380
Harvesting	4 770	2 330	1 947	493
Road construction	407	181	179	47
Other forest	982	466	372	144

Table 6.2 Employment in forestry and primary wood processing by activity 1998/9

full-time equivalents

Activity	GB	England	Scotland	Wales
Total forest	**12 676**	**6 166**	**5 192**	**1 318**
Haulage	1 061	326	593	142
Processing	11 227	5 952	3 083	2 192
Other non-forest	4 568	2 295	1 826	447
Total non-forest	**16 856**	**8 573**	**5 502**	**2 781**
Total	**29 532**	**14 739**	**10 694**	**4 099**

Source: Forest Employment Survey 1998/9 (not National Statistics).

Almost all direct workers (96%) travelled less than 20 miles to their place of employment. Contract workers were more likely to travel further, with 45% travelling more than 20 miles.

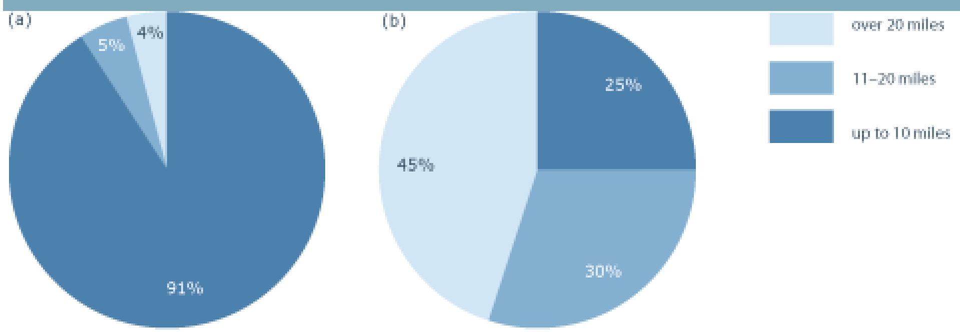
Table 6.3 Percentage of forestry workers travelling less than 20 miles to their place of employment in GB

% workers

	GB	England	Scotland	Wales
Direct workers	96	97	98	80
Contract workers	55	56	54	55
Total	**71**	**72**	**68**	**68**

Source: Forest Employment Survey 1998/9 (not National Statistics).

Figure 6.1 Travel to work distances for (a) direct and (b) contract employees in 1998/9



Source: Estimated from the Forest Employment Survey 1998/9 (not National Statistics).

Annual Business Inquiry (ABI)

The Annual Business Inquiry (ABI) carried out by the Office for National Statistics (ONS) includes statistics on employment broken down by Standard Industrial Classification (SIC). In wood processing, SIC 20 (wood products) and SIC 21 (pulp and paper) have a much wider scope than the Forest Employment Survey, as they include primary processing of imported material and also some secondary processing. The ABI was extended to include forestry in 2001; SIC 02 (forestry) has a narrower scope than in the Forest Employment Survey, as it does not include activities like timber haulage and government administration.

Employment reported by the ABI is shown in Table 6.4 for the years 1998 to 2003 (average employment in the year). From 1998 to 2003, employment declined by more than one quarter in primary wood processing, and by a smaller proportion in secondary wood processing.

Table 6.4 Employment in Forestry and Wood Processing

thousands

Standard Industrial Classification (SIC)[1]	1998	1999	2000	2001	2002	2003
SIC 02: forestry	..	..	..	13	14	12
SIC 20						
20.1: sawmills	13	15	17	13	13	11
20.2: wood panels	7	8	6	7	7	6
Other SIC 20: secondary products	71	67	66	70	74	70
Total SIC 20: wood products	91	90	89	90	94	87
SIC 21						
21.1: pulp & paper	27	25	22	19	17	17
21.2: articles of pulp & paper	87	80	78	76	75	69
Total SIC 21: pulp & paper	**114**	**105**	**99**	**95**	**93**	**86**
Total wood processing (SIC 20 + 21)	**205**	**195**	**188**	**185**	**187**	**173**
Total primary wood processing(SIC 20.1 + 20.2 + 21.1)	**47**	**48**	**45**	**39**	**37**	**34**

Source: Annual Business Inquiry

1. The SIC categories shown in the table are:
   SIC 02 = Forestry, logging and related services
   SIC 20.1 = Sawmilling and planing of wood, impregnation of wood
   SIC 20.2 = Manufacture of veneer sheets, manufacture of plywood, laminboard, particle board, fibre board and other panels and boards
   Other SIC 20 = Manufacture of builders' carpentry and joinery, wooden containers, and other products of wood, straw and plaiting materials
   SIC 21.1 = Manufacture of pulp, paper and paperboard
   SIC 21.2 = Manufacture of articles of paper and paperboard
   .. denotes data not available

Other studies have been commissioned to estimate the number of jobs in the wider economy (tourism, service industries, transport and so on) which depend on the existence of forestry and primary wood processing activities. Information on these studies is available from the Forestry Commission's website.

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

Finance & prices

This section contains information about Government expenditure on forestry, grants and financial returns from forestry.

Government expenditure on forestry

Net expenditure on public forests by the Forestry Commission in 2003-04 totalled £66 million, a fall of 10% from the previous year. £62 million was used to fund forest management and development, £25 million for recreation, conservation & heritage and £42 million for harvesting & haulage. Timber sales generated a total income of £62 million in 2003-04.

The total net expenditure for 2003-04 of £66 million comprised £32 million in Scotland, £23 million in England and £12 million in Wales.

Table 7.1 Funding public forests - net expenditure[1]

£ million

	2000-01	2001-02	2002-03	2003-04
GB	**34.2**	**49.2**	**74.2**	**66.4**
Forest management & development[2]	51.5	57.8	77.6	61.8
Recreation, conservation & heritage	15.5	18.5	21.5	25.0
Harvesting & haulage	42.5	42.7	43.4	41.9
Less timber income	-75.2	-69.8	-68.2	-62.2
England	**10.2**	**16.5**	**22.7**	**22.5**
Forest management & development[2]	14.5	18.4	22.4	19.5
Recreation, conservation & heritage	7.8	8.2	8.5	9.6
Harvesting & haulage	10.3	9.6	10.1	10.2
Less timber income	-22.4	-19.6	-18.4	-16.8
Scotland	**18.2**	**22.8**	**39.4**	**31.7**
Forest management & development[2]	26.4	27.4	43.7	34.3
Recreation, conservation & heritage	5.9	6.9	7.1	7.8
Harvesting & haulage	22.4	22.8	22.5	21.9
Less timber income	-36.5	-34.3	-34.0	-32.3
Wales	**5.9**	**9.9**	**12.1**	**12.2**
Forest management & development[2]	10.5	12.0	11.4	7.9
Recreation, conservation & heritage	1.8	3.4	5.9	7.6

Table 7.1 Funding public forests - net expenditure[1]

£ million

	2000-01	2001-02	2002-03	2003-04
Harvesting & haulage	9.8	10.3	10.7	9.7
Less timber income	-16.2	-15.8	-15.9	-13.0

Source: Forestry Commission Annual Reports & Accounts.

1. Excludes notional cost of capital and any surplus/ deficit on sale of properties.
2. Includes all expenditure on public forests not covered under "recreation, conservation & heritage" or "harvesting & haulage".

In addition to expenditure on public forests, the Forestry Commission spent a total of £99 million on other activities in 2003-04. £40 million of this total was used by the national offices in each country for grants and partnership funding and a further £32 million for policy, regulation & administration. At a GB level, £36 million was used for international & GB support services and £12 million for research.

Table 7.2 Other government expenditure on forestry[1,2]

£ million

	2000-01	2001-02	2002-03	2003-04
GB	**89.8**	**88.5**	**89.9**	**99.0**
Grants and partnership funding[3] - total	40.6	38.7	37.8	40.1
Policy, regulation & administration - total	17.0	19.5	22.8	31.7
Research - GB funded	12.3	12.4	11.9	12.4
International & GB support services	31.7	31.7	31.7	36.3
Less recovery of support service costs from countries	-11.9	-13.8	-14.2	-21.5
England	**25.3**	**28.7**	**31.4**	**34.3**
Grants and partnership funding[3]	18.2	18.8	18.8	18.6
Policy, regulation & administration[4]	7.1	9.9	12.5	15.7
Scotland	**26.3**	**24.0**	**20.1**	**25.0**
Grants and partnership funding[3]	19.6	17.4	14.0	15.8
Policy, regulation & administration[4]	6.7	6.6	6.1	9.2
Wales	**6.1**	**5.5**	**9.1**	**12.5**
Grants and partnership funding[3]	2.9	2.6	4.9	5.7
Policy, regulation & administration[4]	3.2	2.9	4.1	6.8

Source: Forestry Commission Annual Reports & Accounts.

1. Forestry Commission expenditure only. Excludes expenditure incurred by other departments, e.g. FWPS payments.
2. Excludes miscellaneous income.
3. EU co-financing not subtracted from grant expenditure.
4. Country costs include shares of GB support service costs.

Grant Schemes

Non-FC woodland in Great Britain is supported by a range of grants for creating new woodland and managing existing woodland. The Woodland Grant Scheme (WGS) was introduced in 1988, at the same time as tax relief was phased out. In Scotland, WGS was replaced by SFGS in 2003. The statistics here exclude data from the SFGS. In England, WGS was closed to new applications in 2004 and the English Woodland Grant Scheme was launched in July 2005. In Wales, WGS will be replaced by Better Woodlands for Wales (BWW) in December 2005.

In WGS, for new woodland areas there were two grant rates for broadleaves (for areas above and below 10 hectares) and one grant rate for conifers. The higher broadleaved rate of grant was also paid to encourage planting of Scots pine to establish new native pinewoods. These grants were paid in two instalments, the first instalment being paid when the work has been carried out to a satisfactory standard, the following payment five years later. A discretionary payment was paid for natural regeneration. This was based on the costs of the preparatory work required. When the trees were a certain height, a fixed payment equivalent to the restocking grant was paid.

In WGS, supplementary grants were available for planting on better quality agricultural land (Better Land Contribution) and to encourage the creation of new woodland close to towns and cities, where public access will be allowed (Community Woodland Contribution). A Premium was also available for planting woodland in the Community Forests and National Forest in England. Farmers could additionally apply for the Farm Woodland Premium Scheme. This scheme offered payments from the rural affairs departments to compensate for agricultural income foregone. Challenge funds, where applicants bid for the money they require to carry out the work, were also available to encourage new planting in certain targeted areas.

In WGS, grants for existing woodland included a restocking grant (paid in one instalment), a management grant (usually paid over a five year period) and a number of Woodland Improvement Grants. There were also Challenge funded projects to encourage certain types of work in existing woodland.

The Scottish Forestry Grants Scheme (SFGS) was developed to implement the Scottish Forestry Strategy. It aims to encourage the creation and management of woods and forests to provide economic, environmental and social benefits now and in the future. Grants are available for:

- Expansion - creating new woodlands;
- Restocking - replanting woodlands after clear felling; and
- Stewardship - improving the value of existing woodlands.

Locational premiums provide additional funding to normal SFGS grants for planting of woodlands in certain areas. A total of 870 hectares were grant aided under SFGS Locational Premium in 2004-05. For statistics on the SFGS, see FC Scotland Annual Reports.

Table 7.3 shows the areas where the initial work has been carried out satisfactorily and the first instalment of grant has been paid; it demonstrates how much new work is being undertaken with grant aid. This differs from the non-Forestry Commission information in Table 1.12, which for natural colonisation/regeneration is from second instalment payments, and demonstrates the woodland area that has become successfully established.

Table 7.4 shows the annual management grant, but does not include the more capital-oriented woodland improvement grant.

The Forest Service in Northern Ireland operates a similar scheme, but their data are not included in this section; for more information see the Forest Service annual report.

A total of 8.7 thousand hectares of woodland received first instalment WGS support in Great Britain in 2004-05.

Table 7.3 Areas receiving first instalment[1] WGS support in Great Britain in year ending 31 March 2005

thousands of hectares

	New planting (excluding natural regeneration)	New woodland (from natural regeneration)	Restocking (excluding natural regeneration)	Restocking (from natural regeneration)
Broadleaves				
Total grant-aided	7.5	0.3	0.8	0.2
Better land contribution	4.0	0.0	Additional contributions not available for restocking	
Community woodland contribution	0.7	0.0		
Community forest premium	0.5	0.0		
Challenge funds	0.8	0.0		
Tendering (National Forest)	0.3	0.0		
Short rotation coppice locational contribution	0.0	0.0		
Conifers				
Total grant-aided	1.2	0.0	1.2	0.1
Better land contribution	0.2	0.0	Additional contributions not available for restocking	
Community woodland contribution	0.0	0.0		
Community forest premium	0.0	0.0		
Challenge funds	0.0	0.0		
Tendering (National Forest)	0.0	0.0		
Short rotation coppice locational contribution	(not applicable - conifers are not used for short rotation coppice)			
Total				
Total grant-aided	**8.7**	**0.3**	**2.0**	**0.3**
Better land contribution	**4.2**	**0.0**	Additional contributions not available for restocking	

Table 7.3 Areas receiving first instalment[1] WGS support in Great Britain in year ending 31 March 2005

thousands of hectares

	New planting (excluding natural regeneration)	New woodland (from natural regeneration)	Restocking (excluding natural regeneration)	Restocking (from natural regeneration)
Community woodland contribution	**0.7**	**0.0**		
Community forest premium	**0.5**	**0.0**		
Challenge funds	**0.8**	**0.0**		
Tendering (National Forest)	**0.3**	**0.0**		
Short rotation coppice locational contribution	**0.0**	**0.0**		

Source: Woodland Grant Scheme

1. First instalment and supplementary payments. Supplementary payments are only available for new woodland.

A total of 31.7 thousand hectares of woodland in Great Britain was approved for annual management grant under the Woodland Grant Scheme (WGS) in 2004-05. This represented a decrease of 28% from the 2003-04 figure of 43.9 thousand hectares. The total of 31.7 thousand hectares in 2004-05 comprised 30.4 thousand hectares in England (96%), 1.1 thousand hectares in Scotland (3%) and 0.2 thousand hectares in Wales (1%).

Table 7.4 Woodland in Great Britain approved for annual management grant[1] under the Woodland Grant Scheme

thousands of hectares

Year (ending 31/3)	GB	England	Scotland	Wales
Broadleaves				
2000-01	22.5	18.5	2.6	1.4
2001-02	18.6	15.4	2.2	1.0
2002-03	19.7	15.7	3.2	0.8
2003-04	32.2	30.2	1.3	0.7
2004-05	24.9	24.5	0.3	0.1
Conifers				
2000-01	11.7	4.9	6.3	0.4
2001-02	8.1	4.5	3.1	0.5
2002-03	6.8	3.5	2.8	0.5

Table 7.4 Woodland in Great Britain approved for annual management grant[1] under the Woodland Grant Scheme

thousands of hectares

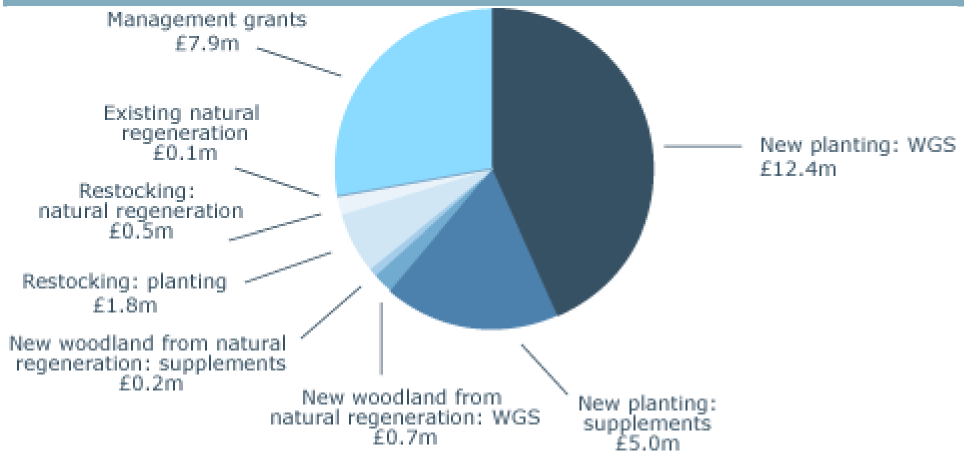
Year (ending 31/3)	GB	England	Scotland	Wales
2003-04	11.7	8.3	3.0	0.4
2004-05	6.8	5.9	0.8	0.1
Total				
2000-01	34.2	23.4	8.9	1.9
2001-02	26.7	19.9	5.3	1.5
2002-03	26.5	19.2	6.0	1.3
2003-04	43.9	38.5	4.3	1.0
2004-05	31.7	30.4	1.1	0.2

Source: Woodland Grant Scheme

1. Standard, special and annual management grants are included. Woodland Improvement Grants are not included.

A total of £28.5 million was paid in grants in 2004-05. 44% of this total comprised new planting under the Woodland Grant Scheme, 28% comprised management grants and 18% comprised new planting supplements.

Figure 7.1 Grant money paid in year ending 31 March 2005 by type of grant



Source: Woodland Grant Scheme

Grants for existing natural regeneration are paid to safeguard trees which are already established (for example by fencing to keep deer out), whereas grants for restocking by natural regeneration are for fencing to allow trees to establish (these categories were amalgamated in Table 7.3). Neither the Farm Woodland Premium Scheme (funded by Defra and the devolved administrations) nor Woodland Improvement Grants are included in this figure.

The Farm Woodland Premium Scheme (GB)

The Farm Woodland Premium Scheme (FWPS) was designed to encourage the creation of new woodlands on farms. It achieved this by offering annual payments to compensate for the agricultural income forgone through establishing and maintaining woodland. The FWPS could only be given where WGS was also payable, because the environmental and silvicultural standards of the WGS must be satisfied before a FWPS application can be approved. As a result, the areas approved for FWPS grant are included in the Woodland Grant Scheme areas in previous tables.

A total of 3 thousand hectares of woodland were approved for FWPS grant in 2004-05. 61% of this total area was in England, 25% in Scotland and 14% in Wales.

Table 7.5 Area of woodland in GB approved for FWPS grant

hectares

Year (ending 31/3)	GB	England	Scotland	Wales
Conifers				
1995-96	3 379	327	2 976	76
1996-97	2 306	225	2 058	23
1997-98	2 608	301	2 238	68
1998-99	3 711	460	3 159	92
1999-00	4 670	563	3 913	195
2000-01	1 970	368	1 597	5
2001-02	2 368	446	1 915	8
2002-03	3 260	200	3 030	30
2003-04	725	126	588	12
2004-05	243	41	188	14
Broadleaves				
1995-96	5 896	2 369	3 243	284
1996-97	4 515	1 486	2 907	122
1997-98	4 354	1 930	2 247	177
1998-99	5 769	2 683	2 803	284
1999-00	9 061	2 862	5 800	399
2000-01	4 882	2 795	1 919	168
2001-02	5 981	3 818	1 970	193
2002-03	6 933	4 389	2 242	302
2003-04	6 940	4 347	2 204	389
2004-05	2 955	1 917	603	435
Total				
1995-96	9 275	2 696	6 219	360
1996-97	6 821	1 711	4 965	145
1997-98	6 962	2 231	4 485	245
1998-99	9 480	3 143	5 962	376
1999-00	13 731	3 425	9 713	594

Table 7.5 Area of woodland in GB approved for FWPS grant

hectares

Year (ending 31/3)	GB	England	Scotland	Wales
2000-01	6 852	3 163	3 516	173
2001-02	8 349	4 264	3 885	201
2002-03	10 193	4 589	5 272	332
2003-04	7 665	4 473	2 792	401
2004-05	3 198	1 958	791	449

Source: Woodland Grant Scheme

Energy Crops

The Energy Crop Scheme (ECS) in England is run by Defra (Department for Environment, Food and Rural Affairs) in partnership with Forestry Commission England. The scheme, which is part of the England Rural Development Programme (ERDP), offers grants for the establishment of energy crops (Short Rotation Coppice and Miscanthus) and for the establishment of producer groups (Short Rotation Coppice only).

A total of 1 429 hectares of short rotation coppice and 1 752 hectares of miscanthus have been agreed under the Energy Crop Scheme in England, as at September 2005.

Table 7.6 Energy Crop Scheme: Number of applications and area of land

Area (hectares)

	Short Rotation Coppice	Miscanthus
Live agreements	1 429	1 752
Applications still being processed[1]	458	1 650

Source: Defra

1. Applications still being processed include deferred applications with postponed planting years.

In Scotland, Forestry Commission Scotland provides grants for establishing poplars and willows as short rotation coppice (SRC). Grant rates are £600/hectare on non-set aside land and £400/hectare on set aside land. Grants for fencing and ground preparation are also available. The rates are currently under review. The annual planting of SRC is small and in 2004-05 amounted to 13 hectares.

Prices of wood and wood products

The Forestry Commission has collected information for many years on the prices of conifers sold standing by the FC and publishes a Coniferous Standing Sales Price Index (CSSPI) every 6 months. A softwood sawlog price index, providing information on prices (delivered to roadside), of coniferous sawlogs produced by the Forestry Commission, is also published. *Timber Price Indices* gives values for overlapping 12 month periods and is available from the Forestry Commission website. There is little other information on wood prices before primary processing and no price index is available for broadleaves. Prices for outputs of primary wood processing are collected by the Office for National Statistics (ONS) in the Producer Price Indices (PPIs), and these are available in the MM22 Business Monitor which gives detailed PPIs monthly, or from the National Statistics website.

The average price per m^3 overbark standing was £6.13 in nominal terms (£4.98 in 1996 prices) in the year to March 2005. This represents an increase of 3.7% in real terms compared with the previous year. Over the same time period, sawlog prices have risen by 4.3%.

Table 7.7 Coniferous standing sales and sawlog price indices[1] for Great Britain

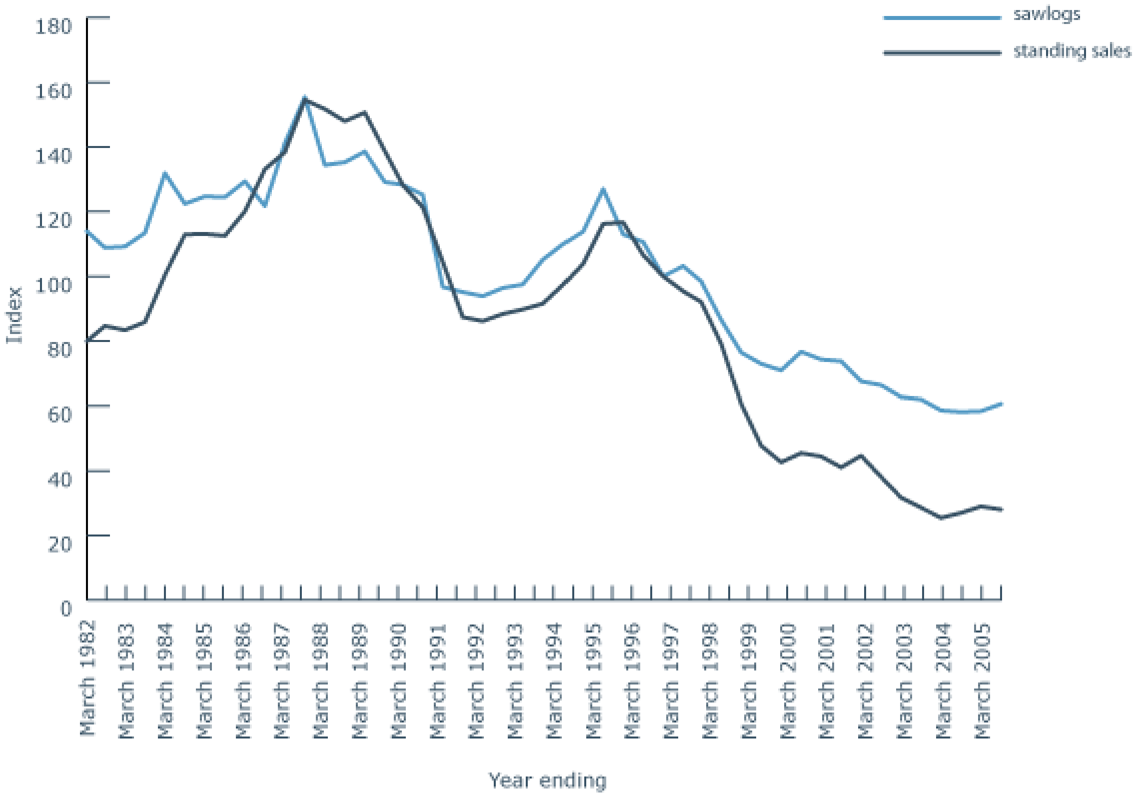
Index

Year ending March	Standing sales Nominal terms[2]	Standing sales Real teams[3,4]	Sawlogs Nominal terms[2]	Sawlogs Real terms[3,4]
1996	104.6	106.6	108.6	110.6
1997	96.8	95.4	104.7	103.1
1998	82.3	79.1	90.0	86.5
1999	51.1	47.8	78.1	72.9
2000	49.7	45.5	83.9	76.7
2001	45.4	41.1	81.6	73.8
2002	43.2	38.1	75.3	66.4
2003	33.6	28.6	72.8	62.0
2004	32.6	27.0	70.3	58.2
2005	34.5	28.0	74.7	60.6

Source: Timber Price Indices.

1. The price indices are constructed from information on Forestry Commission sales only. Year to September 1996 = 100.
2. Nominal prices are the actual prices at that point in time.
3. Real terms values are obtained by using the GDP deflator to convert to 'constant prices' (in this case prices in 1996). This allows trends in timber prices to be tracked without the influence of inflation.
4. Real terms indices have been revised from Forestry Statistics 2004 in light of revisions made by the Office for National Statistics (ONS) to the GDP deflator.

Figure 7.2 Coniferous standing sales and sawlog price indices in real terms (year to September 1996 = 100)



Source: Timber Price Indices

Note that the overlapping periods used to construct the indices will make this graph in real terms appear smoother than the actual movement of prices, and remove any seasonality in the series.

Financial return from forestry

Returns to the forest owner are made up of sales of timber (standing or felled), sales of other goods and services, increases in the value of the woodland (from annual increment or market factors), and the net income from subsidies (e.g. planting grants) less taxes. The owner's costs are made up of employment costs and other purchases.

Estimates of the overall return from commercial Sitka spruce plantations are produced annually in the Investment Property Databank (IPD) UK Forestry Index (not National Statistics), which is calculated from a sample of private sector plantations in mainland Britain.

The total return from forestry in the three year period 2001 to 2004 is estimated to be 1.9% per annum. This represents a recovery from the negative returns of recent years but is still well below the peak of 9.9% per annum for the three year period 1993 to 1996.

Table 7.8 3 year rolling annualised returns from forestry

percent per annum

	Total return
1992-95	4.4%
1993-96	9.9%
1994-97	7.9%

Table 7.8 3 year rolling annualised returns from forestry

percent per annum

	Total return
1995-98	4.5%
1996-99	-3.0%
1997-00	-5.2%
1998-01	-5.4%
1999-02	-3.2%
2000-03	-1.7%
2001-04	1.9%

Source: IPD UK Forestry Index 2005.

Gross Value Added (GVA)

The Annual Business Inquiry (ABI) carried out by the Office for National Statistics (ONS) includes statistics on gross value added broken down by Standard Industrial Classification (SIC). The ABI was extended to include forestry in 2001. Gross Value Added (GVA) is the difference between the value of outputs and the value of intermediate consumption, so mainly comprises employment costs and profits.

GVA reported by the ABI is shown in Table 7.9. From 1998 to 2003, GVA in primary wood processing decreased by 19% to £1.5 billion. GVA in forestry has increased by 15% since 2000 to £0.3 billion in 2003.

Table 7.9 Gross Value Added in Forestry and Wood Processing

£ millions

Standard Industrial Classification (SIC)[1]	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
SIC 02: forestry	..	..	273	294	292	315
SIC 20						
20.1: sawmills	341	399	398	312	346	362
20.2: wood panels	311	291	246	222	232	245
Other SIC 20: secondary products	1 618	1 411	1 659	1 781	1 881	2 055
Total SIC 20: wood products	**2 270**	**2 101**	**2 303**	**2 315**	**2 459**	**2 662**
SIC 21						
21.1: pulp & paper	1 177	1 257	1 007	1 002	1 022	879

Table 7.9 Gross Value Added in Forestry and Wood Processing

£ millions

Standard Industrial Classification (SIC)[1]	1998	1999	2000	2001	2002	2003
21.2: articles of pulp & paper	2 837	2 730	2 732	2 715	2 747	2 618
Total SIC 21: pulp & paper	**4 014**	**3 987**	**3 739**	**3 717**	**3 770**	**3 496**
Total wood processing (SIC 20 + 21)	**6 284**	**6 088**	**6 042**	**6 032**	**6 229**	**6 158**
Total primary wood processing(SIC 20.1 + 20.2 + 21.1)	**1 829**	**1 947**	**1 651**	**1 536**	**1 600**	**1 486**

Source: Annual Business Inquiry.

1. The SIC categories shown in the table are:
SIC 02 = Forestry, logging and related services
SIC 20.1 = Sawmilling and planing of wood, impregnation of wood
SIC 20.2 = Manufacture of veneer sheets, manufacture of plywood, laminboard, particle board, fibre board and other panels and boards
Other SIC 20 = manufacture of builders' carpentry and joinery, wooden containers, and other products of wood, straw and plaiting materials
SIC 21.1 = Manufacture of pulp, paper and paperboard
SIC 21.2 = Manufacture of articles of paper and paperboard
.. denotes data not available

NB: Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.

Sources & definitions

Scope

This publication covers a wide range of forestry aspects in the United Kingdom, drawing on statistics produced by the Forestry Commission (FC) for England, Scotland and Wales, statistics from the Northern Ireland Forest Service (FS) and other sources. Information on FC and FS woodland is available from the management of their estates; information on non-FC/FS woodland comes from administration of grants and licences, and is supplemented by various FC-run surveys of the forestry and primary wood processing industries.

Woodland

The definition of woodland in United Kingdom forestry statistics is land under stands of trees with a canopy cover of at least 20% (or having the potential to achieve this), including integral open space, and including felled areas that are awaiting restocking. A tree is defined by its species; a list of tree species in British woodland is given in Chapter 4. There is no minimum height for trees to form a woodland at maturity, so the definition includes woodland scrub but not areas of gorse, Rhododendron, etc., outside woodland. This is a different definition from that used internationally which is based on 10% canopy cover and a minimum height at maturity of 5m, but the two definitions are estimated to give similar areas of woodland in the UK.

There is no minimum size for a woodland. In this report, 'woodland' (defined in the glossary) refers to woods and forests of all sizes. The 1995-99 National Inventory of Woodland and Trees mapped all areas down to 2.0 ha, but sample-based information was also collected for smaller woods, small groups of trees and individual trees. The area statistics in Chapter 1 show totals for woods over 0.1 hectares.

Woodland includes native and non-native trees; semi-natural and plantation areas. Woodland habitat types are not currently differentiated in these statistics.

Most public sector woodland is owned or managed by the Forestry Commission (FC) or, in Northern Ireland, the Forest Service (FS). Woodland owned by local authorities, the Ministry of Defence, and other public sector bodies is included in 'non-FC/FS woodland'.

Integral open space is defined differently in the data sources used in this publication for woodland owned or managed by Forestry Commission (FC) and woodland owned by others (Tables 1.1 and 1.3). FC data now come from a GIS where mappable open space is excluded from the total. Non-FC woodland (from the National Inventory of Woodland and Trees, NIWT) includes open areas less than 1 hectare as integral open space.

Most public sector woodland is owned by or managed by the Forestry Commission (FC) or, in Northern Ireland, the Forest Service (FS). Woodland owned by local authorities, the Ministry of Defence, and other public sector bodies is included in 'non-FC/FS woodland'.

Forestry Activity

Statistics for economic aspects of forestry and primary wood processing relate to the forestry-based activities involved. So in a business with several different activities (say forestry, construction and property management), it is only the forestry part of the business which contributes to the figures. Support for forestry activities (such as office workers) is however included. The sampling frame of businesses involved in forestry and primary wood processing is mostly obtained from lists of members of trade associations. Measures are taken to avoid double counting where businesses are members of more than one organisation, but there may be a small level of undercounting for businesses which are not members of any organisation.

Business statistics in the United Kingdom are generally produced using a different classification system, where the whole of a business is classified according to its largest activity. This means that most estimates in this publication are not directly comparable with results from the Annual Business Inquiry carried out by the Office for National Statistics (ONS), which is used in this publication to provide supplementary estimates of employment and gross value added.

Quality of Estimates

There are several components of quality, and it is difficult and expensive to measure many of them regularly. Some indications of the quality of the estimates in this publication are given under the headings below.

Business Surveys

Frame

The frame for the business surveys here includes businesses and individuals that belong to one or more of the following associations; Forestry Contracting Association (FCA), United Kingdom Forest Products Association (UKFPA) or Forestry and Timber Association (FTA). The frame population size is reduced to account for businesses that are members of more than one association. Some businesses are identified from other sources such as FC Forest Districts. There are probably some businesses involved in forestry which are not members of any of these associations or otherwise identified, and these will not contribute to statistics.

Non-response

Some businesses do not respond to surveys, so some compensation for their non-response is needed in compiling the statistics. If there are differences between the characteristics of businesses that respond and businesses that do not, this can lead to a bias in the results. This bias is minimised by stratifying into groups (for example by size) that might be expected to have similar characteristics, but there have been no studies to estimate the bias in the context of these surveys.

Sampling error

Sampling errors arise from taking a sample rather than surveying all the businesses. Many of the figures here are from censuses where all businesses are sampled, and in these cases the sampling error is zero.

Visitor Surveys

Frame

There is no frame for visitor surveys (that is, there is no list of visitors from which to select a sample). Most on-site visitor surveys aim to select a representative set of sample periods, and interview the next group to pass after completing an interview. Some of the information about visitors comes from household surveys (for example the Day Visits Survey) that use recognised sampling frames.

Glossary

Ancient woodland

Woodland which has been in continuous existence since 1600 (1750 in Scotland)

ASNW

Ancient Semi-Natural Woodland

ASSI

Area of Special Scientific Interest - the Northern Ireland equivalent of SSSI

Boreal region

Region of forest areas of the Northern Temperate Zone: dominated by coniferous trees such as spruce, fir and pine

Broadleaf

Trees which do not have needles or cones (a few, such as alder, have cone-like structures for their seeds which are not true cones)

Cement bonded particleboard

Sheet material manufactured under pressure, based on wood and other vegetable particles bound with hydraulic cement and possibly containing additives

Chipboard

(see Particleboard)

Coated

A term applied to any type of paper whose surface has been treated in such a way as to apply a coating in order to enhance its finish characteristics. The coating consists of a layer of coating materials such as clay, various pigments and/or special substances in combination with adhesives of some type, varnish or lacquer. The coating is used to improve the surface characteristic of the paper, e.g., opacity, smoothness, colour, printing quality

Conifer

Trees with needles and cones

Coppice

Trees which are cut near ground level (or sometimes higher in which case they are pollards), causing them to produce many small shoots. These shoots are harvested every few years at a relatively early age for products such as staves, fencing, fuel and charcoal. 'Coppice with standards' includes scattered trees that are left to grow as normal ('standards')

DARDNI

Department of Agriculture and Rural Development, Northern Ireland

Defra

Department for Environment, Food and Rural Affairs

ECS

Energy Crop Scheme

ERDP

England Rural Development Programme

Establishment

The first five to ten years or formative period that ends once young trees are of sufficient size that, given adequate protection, they are likely to survive at the required stocking.

FAO

United Nations Food and Agriculture Organisation

FC

Forestry Commission: the government department responsible for forestry matters in Great Britain. The responsibility for forestry is devolved to ministers in the Scottish Parliament and Welsh Assembly, but the executive functions are exercised throughout Great Britain by the FC

FE

Forest Enterprise: the agencies or parts of the Forestry Commission responsible for managing the FC forest estate

Fibreboard

Panel material with thickness equal to or greater than 1.5mm, manufactured from lignocellulosic fibres with application of heat and/or pressure. The bond is derived either from the felting of the fibres and their inherent adhesive properties or from a synthetic binder added to the fibres

FNR

Forest Nature Reserve

Forest

In the United Kingdom, there is no formal definition of 'forest'; the term is often used for large areas (especially conifers) or for old Royal hunting preserves such as the New Forest or the Forest of Dean.

FRA

Forest Resources Assessment

FS

Northern Ireland Forest Service (an agency of the Department of Agriculture and Rural Development)

FSC

Forest Stewardship Council

FWPS

Farm Woodland Premium Scheme

GB

Great Britain: England, Scotland and Wales

GIS

Geographic Information System

Green tonne

Weight measurement of timber fresh felled before any natural or artificial drying has occurred

ha

hectare (2.471 acres)

Hardwood

The wood of broadleaved trees, a term sometimes used for the broadleaved trees themselves

High forest

Trees capable of growing to be suitable for timber production (compare with coppice)

LNR

Local Nature Reserve

MDF (medium-density fibreboard)

Wood fibreboard made by a dry process in which the primary bond is derived from a bonding agent, and having a density usually exceeding 600 kg m3

Miscanthus

Woody, perennial rhizomatous grasses originating from Asia

Native species

Species that have arrived and inhabited an area naturally, without deliberate assistance by man. For trees and shrubs in the United Kingdom usually taken to mean those present after post-glacial recolonisation and before historic times. Some species are only native in particular regions - hence locally native

Natural colonisation

Creation of new woodland by natural means, i.e. without sowing or planting

Natural regeneration

Regeneration of existing woodland by natural means, i.e. without sowing or planting

New planting

Establishing woodland on ground that was not woodland in the recent past

NGO

Non-government organisation(s)

NI

Northern Ireland

NIWT

National Inventory of Woodland and Trees

NNR

National Nature Reserve

NT

National Trust

NTS

National Trust for Scotland

ONS

Office for National Statistics

Origin

The original natural genetic source

OSB (oriented strand board)

Multi-layered board made from strands of wood of a predetermined shape and thickness together with a binder. The strands in the external layers are aligned and parallel to the board length or width

OSNW

Other (not ancient) Semi-Natural Woodland

Overbark

The volume of wood including the bark. Can be either standing volume or felled volume

Particleboard

Panel material manufactured under pressure and heat from particles of wood (wood (also chipboard) flakes, chips, shavings, sawdust) in particle form, with the addition of an adhesive

PAWS

Plantation on an ancient woodland site

PEFC

Programme for Endorsement of Forest Certification

Plywood

Woodbased panel consisting of an assembly of layers bonded together with the direction of the grain in adjacent layers, usually at right angles. (Not made in the UK)

Pulp

A fibrous material produced by mechanically or chemically reducing wood into their component parts from which pulp, paper and paperboard sheets are formed after proper slushing and treatment or used for dissolving purposes (dissolving pulp or chemical cellulose) to make rayon, plastics, and other synthetic products. Sometimes called wood pulp

Recovered

Either industrial process by-products (e.g. offcuts or fines from a board manufacturing mill, furniture factory, joinery or construction) or from post-consumer waste wood (e.g. pallets, construction waste) after the stage of recovery or reclamation for purposes of recycling

Restocking

The replanting of an area after trees are removed

Roundwood

Logs and small branches (small roundwood)

RSPB

Royal Society for the Protection of Birds

SAC

Special Area of Conservation

Sawlogs

Material of at least 14 cm top diameter that is destined to be sawn into planks or boards

Sawmill products

Materials including wood chips, sawdust and bark which arise during the conversion of logs to sawn timber. Most used as inputs to other wood processing industries, or sold for other uses. Formerly called sawmill residues or co-products

Sawnwood

Sawn timber - timber that has been cut into planks or boards from logs

Scrub

Area of poorly formed trees or bushes unsuitable for conversion to timber

SEERAD

Scottish Executive Environment and Rural Affairs Development

Semi-natural

Woodland with natural characteristics (predominantly native species of trees, ground plants and animals) where wood production is not a primary objective; this term is used rather than natural because the woodland may have originally been planted or have been managed for wood production in the past

SFGS

Scottish Forestry Grant Scheme. Introduced in June 2003 to replace the Woodland Grant Scheme in Scotland

Silviculture

The care and cultivation of forest trees

Softwood

The wood of coniferous trees or conifers themselves

SPA

Special Protection Area

SRC

Short rotation coppice (either willow or popular)

SSSI

Site of special scientific interest (the equivalent designation in Northern Ireland is ASSI)

Standing volume

Measurement of quantity before trees are felled. Usually expressed as cubic metres overbark standing

Thinning

A proportion of stems removed in order to give the best stems space and light to grow into a more valuable crop. This is usually carried out some time after canopy closure and may be repeated at intervals. It is a necessary operation in the production of quality timber. A temporary reduction in standing volume will result

UK

United Kingdom: Great Britain and Northern Ireland

UKFPA

United Kingdom Forest Products Association

UN ECE

United Nations Economic Commission for Europe, responsible for the Temperate and Boreal Forest Resource Assessment and for compiling international statistics on production and trade of wood products

Underbark

The volume of wood excluding the bark

Veneer

A thin layer of wood, produced by peeling or slicing, used for decorative purposes. Veneers are usually applied to less expensive or less attractive substitutes including solid timber, woodbased sheet materials, etc.

WAG

Welsh Assembly Government

WGS

Woodland Grant Scheme.

Woodland

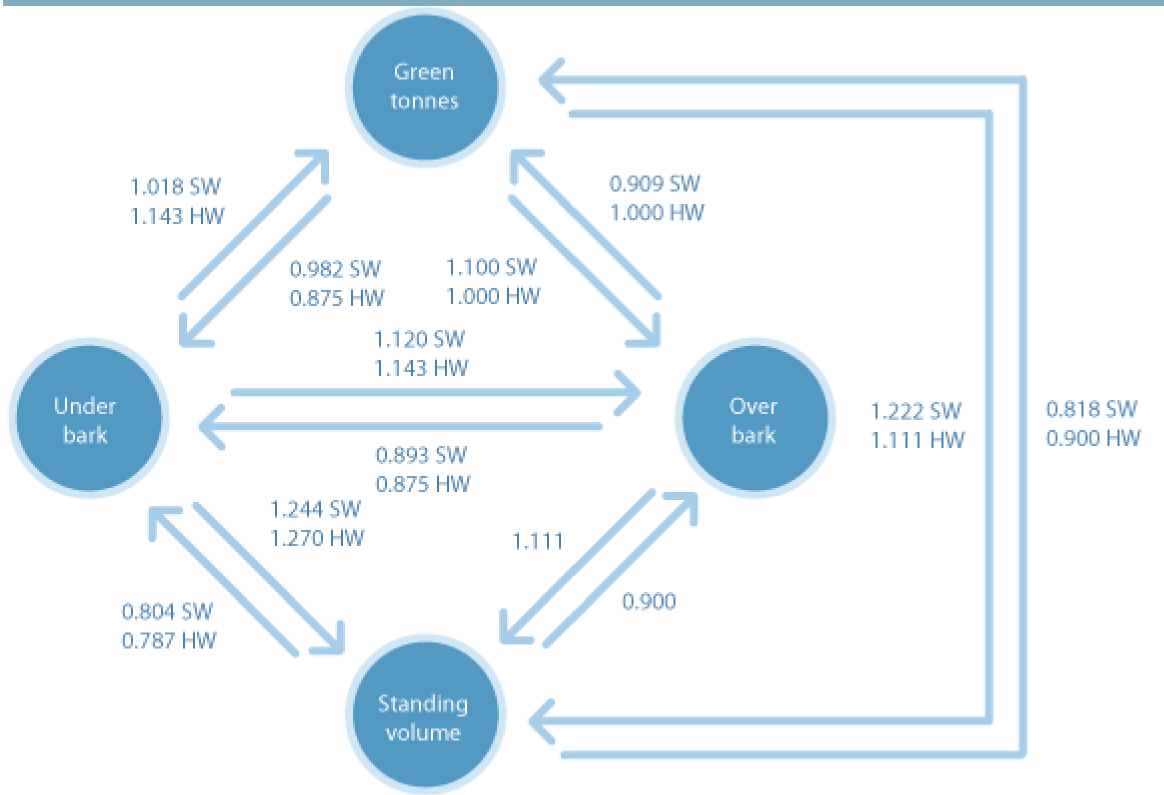
Land under stands of trees with a canopy cover of at least 20% (25% in Northern Ireland), or having the potential to achieve this, including integral open space, and including felled areas that are awaiting restocking

WRME

Wood Raw Material Equivalent - the volume of trees required to produce a wood product. Can be measured underbark or overbark.

Conversion factors

Conversion factors between cubic metres and green tonnes



A revised set of factors that indicates the volume of standing tree crop (wood raw material equivalent - wrme) needed to produce one unit of a final product was published in FC Technical Paper 19 *Revised Forecasts of the Supply and Demand for Wood in the UK*. The factor for paper products includes an allowance for the proportion of recycled paper manufactured in the United Kingdom. The factors are shown below.

Wood product conversion factors to wrme (standing volume)

Product	Measurement Unit	Factor to WRME
Fuelwood and charcoal	m^3	1.25
Other industrial roundwood	m^3	1.25
Softwood sawnwood	m^3	2.13
Hardwood sawnwood	m^3	2.09
Newsprint	tonnes	4.30
Printing and writing paper	tonnes	4.30
Other paper and paperboard	tonnes	4.30
Plywood	m^3	3.67
Fibreboard	m^3	2.35
Particleboard	m^3	1.61
Veneer sheets	m^3	3.67

1. The charcoal conversion factor is for volume to volume. About $7.8^3$of wood is required to make one tonne of charcoal, but one tonne of charcoal is equal to about 6^3in volume.
2. The conversion factor for oriented strand board (OSB) is higher than for other types of particleboard, and the average for particleboard has been constructed by assuming that OSB is 25% of the total.

These factors were not used for Tables 3.1 and 3.3, which used an older set of factors to convert to wrme underbark.

References & Useful Sources of Information

Useful addresses

Economics and Statistics
Forestry Commission
231 Corstorphine Road
Edinburgh
EH12 7AT
www.forestry.gov.uk/statistics

Forest Service
Dundonald House
Upper Newtownards Road
Belfast
BT4 3SB
www.forestryserviceni.gov.uk

Customer Contact Centre
Room 1.015
Office for National Statistics
Cardiff Road
Newport
NP10 8XG
www.statistics.gov.uk

Timber Section
UN/ECE Trade Division
Palais des Nations

CH - 1211 GENEVA 10
Switzerland
www.unece.org/trade/timber/

Forestry Department
Food and Agriculture Organization
of the United Nations
Viale delle Terme di Caracalla
00100 Rome
Italy
www.fao.org/forestry/

European Forest Institute
Torikatu 34
FIN-80100 Joensuu
Finland
www.efi.fi

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GB: New forecast of Softwood availability; S Smith, J Gilbert & R Coppock, (2001)
1995-99 National Inventory of Woodland & Trees; S Smith & J Gilbert, (2001) and website: (www.forestry.gov.uk/inventory)

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Scottish Recreation Survey: Annual summary report 2003/04, Scottish Natural Heritage Commissioned Report No.105 (ROAME NO. F02AA614/2); TNS (2005)

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