

FORESTRY STATISTICS 2004

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

ECONOMICS AND
STATISTICS
Forestry Commission



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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 more 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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Notes

- Figures in the tables are individually rounded, so the constituent items may not sum to the totals given.
- .. denotes data not available
- In this report 'woodland' (defined in the glossary) refers to woods and forests of all sizes.
- 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.
- 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'.



1. WOODLAND AREA 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: 2004

The area of woodland in the UK at 31 March 2004 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 2004

| | | thousands of hectares | | |
|-------------------------|------------------------------|-----------------------|--------------------------|--------------|
| | | Conifers | Broadleaves ¹ | Total |
| United Kingdom | | | | |
| | FC/FS woodland | 749 | 93 | 842 |
| | Non-FC/FS woodland | 902 | 1 074 | 1 976 |
| | Total | 1 651 | 1 166 | 2 817 |
| England | | | | |
| | FC woodland | 154 | 52 | 205 |
| | Non-FC woodland ² | 217 | 693 | 910 |
| | Total | 370 | 745 | 1 115 |
| Scotland | | | | |
| | FC woodland | 440 | 25 | 465 |
| | Non-FC woodland ² | 611 | 254 | 865 |
| | Total | 1 051 | 280 | 1 330 |
| Wales | | | | |
| | FC woodland | 98 | 11 | 110 |
| | Non-FC woodland ² | 64 | 112 | 176 |
| | Total | 162 | 123 | 286 |
| Northern Ireland | | | | |
| | FS woodland | 58 | 4 | 62 |
| | Non-FS woodland | 10 | 14 | 24 |
| | Total | 68 | 18 | 86 |

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

Notes

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 17.0% in Scotland.

Table 1.2 Woodland area in the United Kingdom

| Year | UK | | England | | Scotland | | Wales | | N Ireland | |
|-------------------|------------------------|------------------------------|------------------------|------------------------------|------------------------|------------------------------|------------------------|------------------------------|------------------------|------------------------------|
| | Woodland Area (000 ha) | % Woodland Area ¹ | Woodland Area (000 ha) | % Woodland Area ¹ | Woodland Area (000 ha) | % Woodland Area ¹ | Woodland Area (000 ha) | % Woodland Area ¹ | Woodland Area (000 ha) | % Woodland Area ¹ |
| 1086 ² | | | | ≈15 | | | | | | |
| c1350 | | | | ≈10 | | | | | | |
| late 17thC | | | | ≈8 | | ≈4 ³ | | | | ≈1.5 ⁴ |
| 1905 | 1 140 | 4.7 | 681 | 5.2 | 351 | 4.5 | 88 | 4.2 | 15 | 1.1 ⁴ |
| 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 ⁵ |
| 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 |
| 2004 ⁶ | 2 817 | 11.6 | 1 115 | 8.6 | 1 330 | 17.0 | 286 | 13.8 | 86 | 6.3 |

Notes

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 c.1750, from the Roy maps.

⁴ Per cent is for all Ireland, 17thC and for Ulster 1908.

⁵ 1939–40 Census.

⁶ Great Britain estimates for 2004 are based on data obtained from the 1995–99 National Inventory of Woodland and Trees, 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 areas in Table 1.3 for non-FC woodland in GB have been projected forward from the final results of the 1995–99 National Inventory of Woodland and Trees published in 2001.

The Forestry Commission/Forest Service owned or managed 30% of the total woodland area in the UK in 2004. 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 | | | | | | |
| 2000 | 886 | 216 | 493 | 116 | 61 | |
| 2001 | 861 ¹ | 208 ¹ | 478 ¹ | 115 ¹ | 61 | |
| 2002 | 855 | 206 | 475 | 113 | 61 | |
| 2003 | 848 | 207 | 470 | 110 | 61 | |
| 2004 | 842 | 205 | 465 | 110 | 62 | |
| Non-FC/FS woodland | | | | | | |
| 2000 | 1 907 | 886 | 826 | 173 | 22 | |
| 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 | |
| Total woodland | | | | | | |
| 2000 | 2 793 | 1 103 | 1 319 | 289 | 83 | |
| 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 | |

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

Notes

¹ The apparent decrease in woodland cover in 2001 is due to a reclassification of Forestry Commission open land within the forest.

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 1.4 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 1.4 | | Area of woodland¹ 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 | |
| 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).

Notes

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 1.5 Area of woodland in GB by main tree species

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

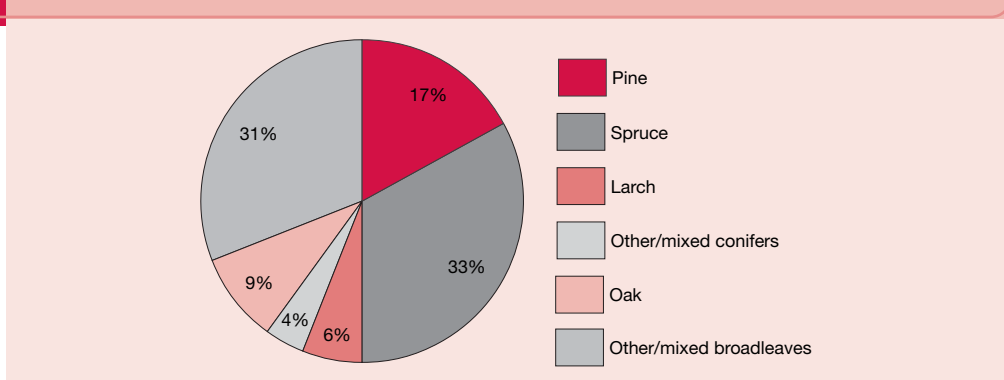
Source: 1995–99 National Inventory of Woodland and Trees (not National Statistics).

Notes

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 1.6 Area of woodland¹ in GB by planting year classes²

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

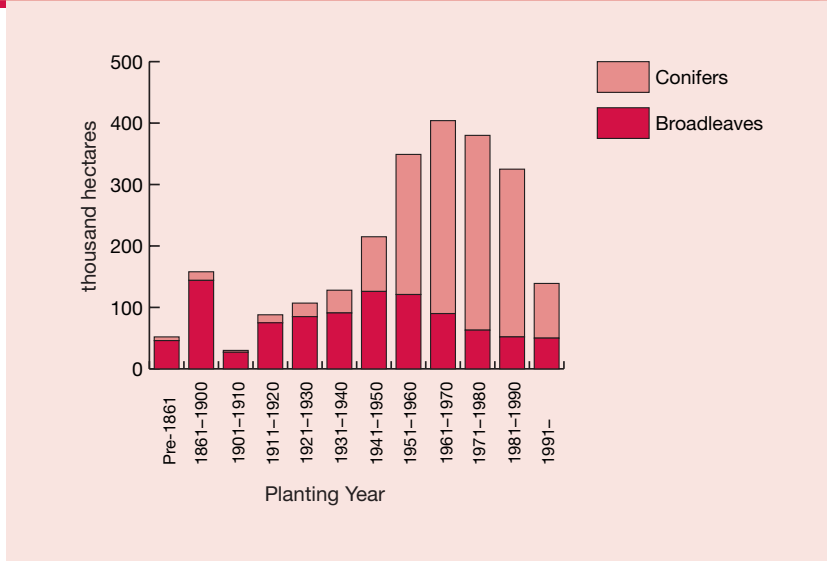
Source: 1995–99 National Inventory of Woodland and Trees (not National Statistics).

Notes

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 1.7 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 425.1 thousand hectares in 1994 to 544.3 thousand hectares in 2003. Around one half (48%) of all farm woodland is in England, with a further 43% in Scotland, 7% in Wales and 2% in Northern Ireland.

Table 1.8 Area of farm woodland, 1994 to 2003¹

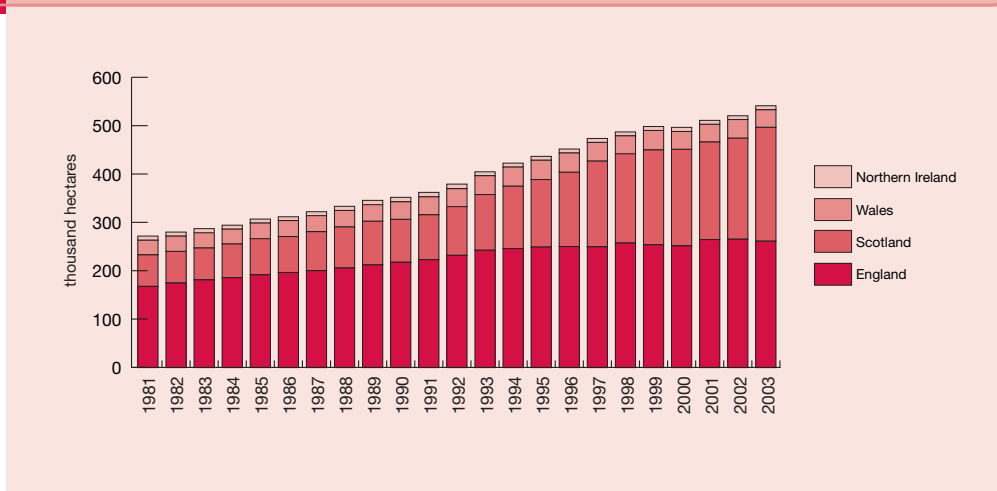
| Year | thousands of hectares | | | | |
|------|-----------------------|---------|----------|-------|-----------|
| | UK | England | Scotland | Wales | N Ireland |
| 1994 | 425.1 | 247.5 | 129.6 | 39.8 | 8.2 |
| 1995 | 439.2 | 250.6 | 140.4 | 40.1 | 8.1 |
| 1996 | 454.4 | 251.8 | 154.3 | 40.1 | 8.2 |
| 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 |

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

Notes

¹ Some figures for 2000–2002 have been revised to reflect revisions made by Defra and the devolved administrations.

Figure 1.3 Area of farm woodland, 1981–2003



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

Area of woodland: international comparisons

The forest areas in Table 1.9 are mostly estimates by the Food and Agriculture Organisation (FAO) published in FAO's *State of World's Forests 2003* (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 1.9 Forest cover: international comparisons – 2000

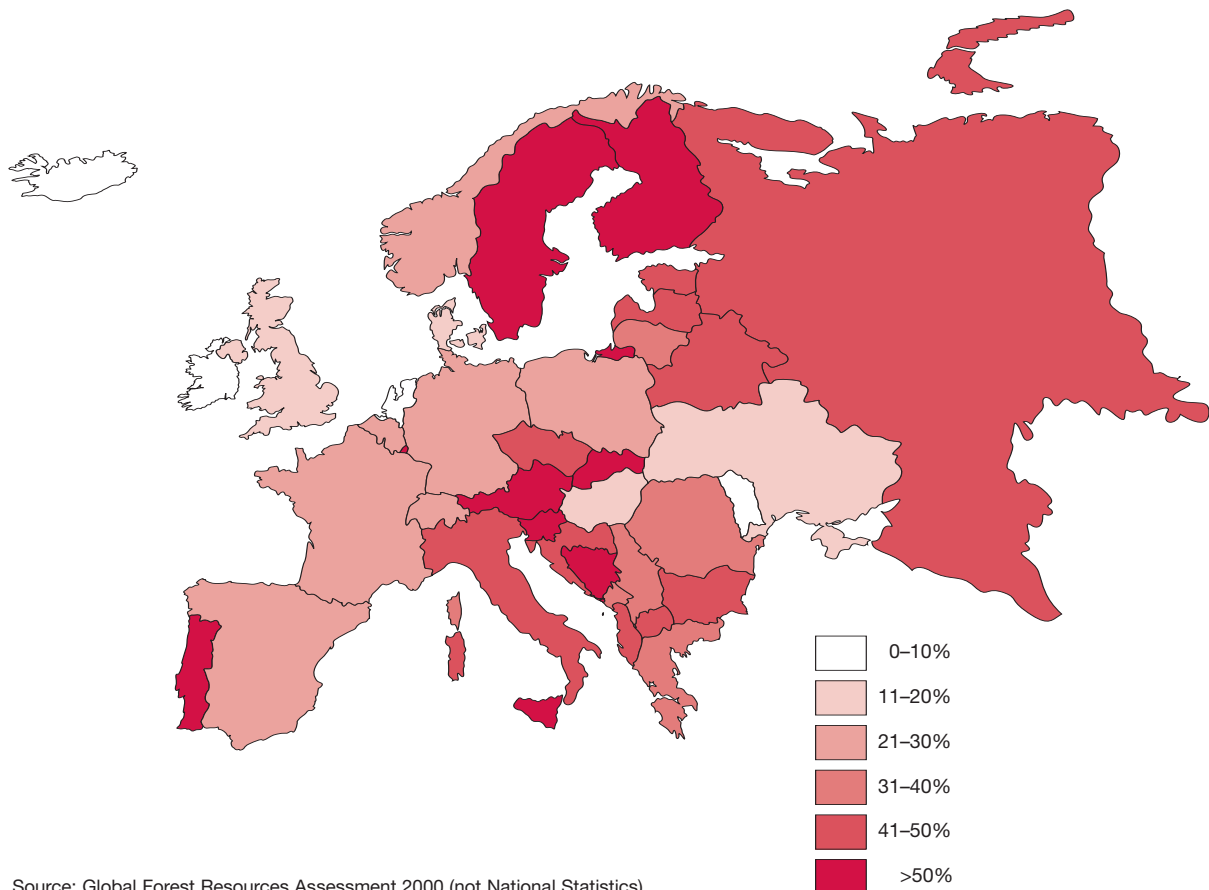
| Country | Forest area (thousand ha) | Total land area (thousand ha) | Forest as % of land area |
|--|------------------------------|-------------------------------------|--------------------------------|
| United Kingdom | 2 794 | 24 160 | 11.6% |
| Austria | 3 886 | 8 273 | 47.0% |
| Belgium/Luxembourg | 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% |
| 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 Europe¹ | 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 Asia¹ | 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% |

Notes

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 1.9 uses *forest area* from FRA, that is, 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



Source: 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 comes principally from the Woodland Grant Scheme (WGS) and (for 2003–04) the Scottish Forestry Grant Scheme (SFGS). 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, except for England in 2003–04, which are by date of claim. A further 1478 hectares of new planting and 131 hectares of restocking, claimed in 2002–03 and paid in 2003–04, are excluded from Tables 1.10 and 1.11 and Figures 1.5 and 1.6. See the following section for more information from the WGS.

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 2003–04), 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 28.5 thousand hectares in 2003–04. In the last two years restocking has accounted for more than half of this total. Broadleaved species accounted for the majority (79%) of new planting but just 18% of the restocking area.

Table 1.10 New planting and restocking: breakdown between broadleaves and conifers¹

| Year (ending 31 March) | New planting | | | Restocking | | | Total | | |
|------------------------------|--------------|---------|-------|------------|---------|-------|-----------|---------|-------|
| | Broadleaf | Conifer | Total | Broadleaf | Conifer | Total | Broadleaf | Conifer | Total |
| thousands of hectares | | | | | | | | | |
| UK total | | | | | | | | | |
| 1999–00 | 11.4 | 6.5 | 17.9 | 3.3 | 11.9 | 15.2 | 14.6 | 18.4 | 33.1 |
| 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 | 10.7 | 2.9 | 13.6 | 2.7 | 12.1 | 14.9 | 13.4 | 15.1 | 28.5 |
| England | | | | | | | | | |
| 1999–00 | 5.2 | 0.7 | 5.9 | 1.4 | 2.5 | 3.9 | 6.6 | 3.2 | 9.8 |
| 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 | 5.6 | 0.2 | 5.8 | 0.8 | 2.3 | 3.1 | 6.4 | 2.5 | 8.9 |
| Scotland | | | | | | | | | |
| 1999–00 | 5.2 | 5.2 | 10.4 | 1.5 | 6.5 | 8.0 | 6.7 | 11.7 | 18.4 |
| 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 |
| Wales | | | | | | | | | |
| 1999–00 | 0.5 | 0.2 | 0.7 | 0.3 | 2.4 | 2.6 | 0.8 | 2.6 | 3.4 |
| 2000–01 | 0.4 | 0.1 | 0.4 | 0.3 | 1.9 | 2.2 | 0.6 | 2.0 | 2.6 |
| 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 |
| Northern Ireland | | | | | | | | | |
| 1999–00 | 0.4 | 0.4 | 0.8 | 0.1 | 0.5 | 0.6 | 0.5 | 0.9 | 1.5 |
| 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 |

Source: Forestry Commission, Forest Service and Woodland Grant Scheme.

Notes

¹ Figures for 2000–01 to 2002–03 have been revised from Forestry Statistics 2003 to calculate totals from unrounded figures.

Almost all new planting (98%) takes place on non-FC/FS land. In contrast, most restocking occurs on FC/FS land (66%).

Table 1.11

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

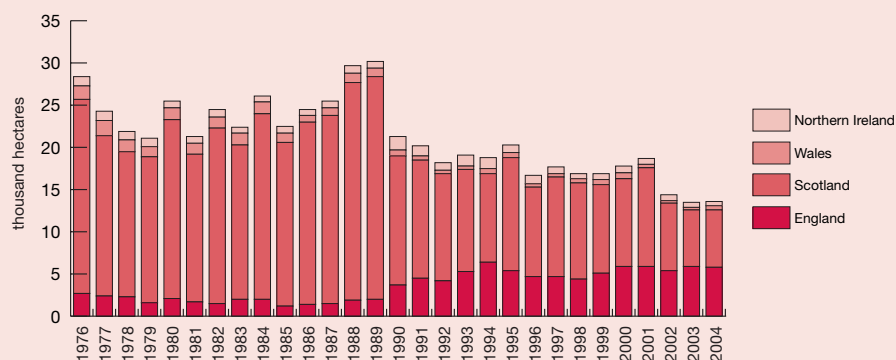
| Year (ending 31March) | New planting | | | Restocking | | | Total | | |
|------------------------------|--------------|-----------|-------|------------|-----------|-------|-------|-----------|-------|
| | FC/FS | Non-FC/FS | Total | FC/FS | Non-FC/FS | Total | FC/FS | Non-FC/FS | Total |
| thousands of hectares | | | | | | | | | |
| UK total | | | | | | | | | |
| 1999-00 | 0.3 | 17.6 | 17.9 | 8.8 | 6.4 | 15.2 | 9.0 | 24.0 | 33.1 |
| 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 |
| 2002-03 | 0.9 | 12.6 | 13.5 | 9.1 | 5.3 | 14.5 | 10.0 | 17.9 | 28.0 |
| 2003-04 | 0.3 | 13.3 | 13.6 | 9.9 | 5.0 | 14.9 | 10.2 | 18.3 | 28.5 |
| England | | | | | | | | | |
| 1999-00 | 0.1 | 5.9 | 5.9 | 2.2 | 1.7 | 3.9 | 2.2 | 7.6 | 9.8 |
| 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 | 5.8 | 5.8 | 2.2 | 0.9 | 3.1 | 2.3 | 6.6 | 8.9 |
| Scotland | | | | | | | | | |
| 1999-00 | 0.0 | 10.4 | 10.4 | 4.3 | 3.8 | 8.0 | 4.3 | 14.2 | 18.4 |
| 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 |
| Wales | | | | | | | | | |
| 1999-00 | 0.0 | 0.7 | 0.7 | 1.8 | 0.8 | 2.6 | 1.8 | 1.6 | 3.4 |
| 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 |
| Northern Ireland | | | | | | | | | |
| 1999-00 | 0.2 | 0.6 | 0.8 | 0.5 | 0.1 | 0.6 | 0.7 | 0.7 | 1.5 |
| 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 |

Source: Forestry Commission, Forest Service and Woodland Grant Scheme.

Notes

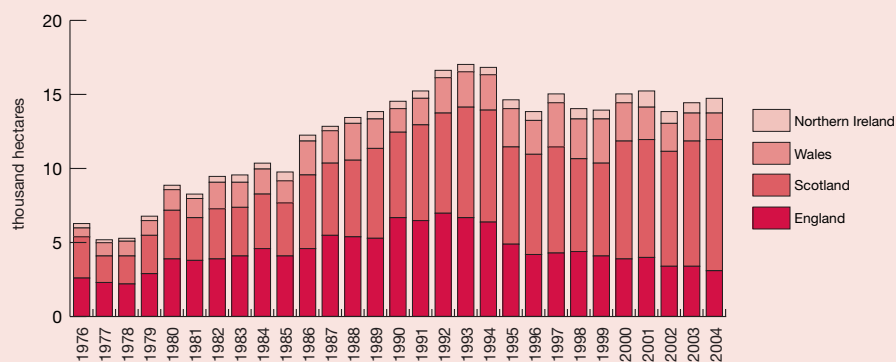
¹ Figures for 2000-01 to 2002-03 have been revised from Forestry Statistics 2003 to calculate totals from unrounded figures.

Figure 1.5 New planting in the UK, 1976–2004



Source: Forestry Commission, Forest Service and Woodland Grant Scheme.

Figure 1.6 Restocking in the UK, 1976–2004



Source: Forestry Commission, Forest Service and Woodland Grant Scheme.

The Woodland Grant Scheme (GB)

Non-FC woodland in Great Britain has been supported by a range of grants available under the Woodland Grant Scheme (WGS), which was introduced in 1988 as tax relief was phased out. Grants are available under two main categories, for creating new woodland and managing existing woodland. In Scotland, WGS was replaced by SFGS in 2003.

For **new woodland** areas there are two grant rates for broadleaves (for areas above and below 10 hectares) and one grant rate for conifers. The higher broadleaved rate of grant is also paid to encourage planting of Scots pine to establish new native pinewoods. These grants are 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 is paid for natural regeneration. This is based on the costs of the preparatory work required. When the trees are a certain height, a fixed payment equivalent to the restocking grant is paid.

Supplementary grants are 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 is also available for planting woodland in the Community Forests and National Forest in England. Farmers may additionally apply for the Farm Woodland Premium Scheme. This scheme offers 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, are also available to encourage new planting in certain targeted areas.

Grants for **existing woodland** include 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 are also Challenge funded projects to encourage certain types of work in existing woodland.

Table 1.12 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 1.11, which for natural colonisation/regeneration is from second instalment payments, and demonstrates the woodland area that has become successfully established.

Table 1.13 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 11.1 thousand hectares of woodland received first instalment WGS support in Great Britain in 2003–04.

Table 1.12

Areas receiving first instalment¹ WGS support in Great Britain in year ending 31 March 2004²

| | 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 | 8.7 | 0.6 | 0.8 | 0.4 |
| Better land contribution | 4.8 | 0.1 | | |
| Community woodland contribution | 0.7 | 0.0 | Additional | |
| Community forest premium | 0.3 | 0.0 | contributions | |
| Challenge funds | 0.9 | 0.1 | not available | |
| Tendering (National Forest) | 0.2 | 0.0 | for restocking | |
| Short rotation coppice locational contribution | 0.0 | 0.0 | | |
| Conifers | | | | |
| Total grant-aided | 2.4 | 0.1 | 2.3 | 0.1 |
| Better land contribution | 1.2 | 0.0 | | |
| Community woodland contribution | 0.1 | 0.0 | Additional | |
| Community forest premium | 0.0 | 0.0 | contributions | |
| Challenge funds | 0.5 | 0.0 | not available | |
| Tendering (National Forest) | 0.0 | 0.0 | for restocking | |
| Short rotation coppice locational contribution | (not applicable – conifers are not used for short rotation coppice) | | | |
| Total | | | | |
| Total grant-aided | 11.1 | 0.7 | 3.1 | 0.6 |
| Better land contribution | 6.0 | 0.1 | | |
| Community woodland contribution | 0.8 | 0.0 | Additional | |
| Community forest premium | 0.3 | 0.0 | contributions | |
| Challenge funds | 1.4 | 0.1 | not available | |
| Tendering (National Forest) | 0.2 | 0.0 | for restocking | |
| Short rotation coppice locational contribution | 0.0 | 0.0 | | |

Source: Woodland Grant Scheme

Notes

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

² Figures relate to areas for which grants were paid during the year in Scotland and Wales, and the area for which grants were claimed during the year in England.

A total of 43.9 thousand hectares of woodland in Great Britain was approved for annual management grant under the Woodland Grant Scheme (WGS) in 2003–04. This represented an increase of 66% from the 2002–03 figure of 26.5 thousand hectares. The total of 43.9 thousand hectares in 2003–04 comprised 38.5 thousand hectares in England (88%), 4.3 thousand hectares in Scotland (10%) and 1.0 thousand hectares in Wales (2%).

Table 1.13

Woodland in Great Britain approved for annual management grant¹ under the Woodland Grant Scheme

| Year (ending 31 March) | thousands of hectares | | | |
|------------------------|-----------------------|---------|----------|-------|
| | GB | England | Scotland | Wales |
| Broadleaves | | | | |
| 1997–98 | 23.6 | 18.5 | 3.9 | 1.2 |
| 1998–99 | 29.6 | 24.6 | 3.6 | 1.5 |
| 1999–00 | 30.3 | 24.9 | 4.3 | 1.0 |
| 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 |
| Conifers | | | | |
| 1997–98 | 12.6 | 5.9 | 5.8 | 0.9 |
| 1998–99 | 13.6 | 6.2 | 6.6 | 0.8 |
| 1999–00 | 14.9 | 8.6 | 5.4 | 0.9 |
| 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 |
| 2003–04 | 11.7 | 8.3 | 3.0 | 0.4 |
| Total | | | | |
| 1997–98 | 36.1 | 24.4 | 9.7 | 2.1 |
| 1998–99 | 43.3 | 30.8 | 10.1 | 2.3 |
| 1999–00 | 45.1 | 33.5 | 9.7 | 1.9 |
| 2000–01 | 34.2 | 23.4 | 8.9 | 1.9 |
| 2001–02 | 26.6 | 20.0 | 5.3 | 1.5 |
| 2002–03 | 26.5 | 19.2 | 6.0 | 1.3 |
| 2003–04 | 43.9 | 38.5 | 4.3 | 1.0 |

Source: Woodland Grant Scheme

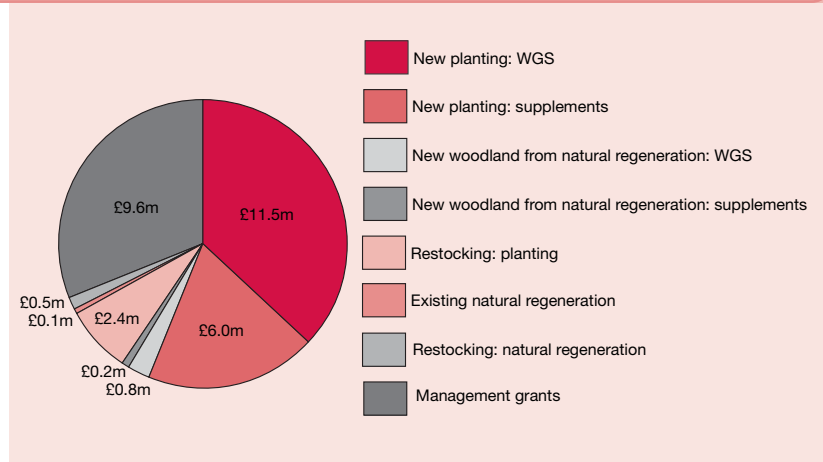
Notes

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

Figure 1.7

Grant money paid in year ending 31 March 2004 by type of grant

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 1.12). Neither the Farm Woodland Premium Scheme (funded by Defra and the devolved administrations) nor Woodland Improvement Grants are included in this figure.



Source: Woodland Grant Scheme

The Farm Woodland Premium Scheme (GB)

The Farm Woodland Premium Scheme (FWPS) is designed to encourage the creation of new woodlands on farms. It achieves this by offering annual payments to compensate for the agricultural income forgone through establishing and maintaining woodland. The FWPS can only be given where WGS is 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 8 thousand hectares of woodland were approved for FWPS grant in 2003–04. 58% of this total area was in England, 36% in Scotland and 5% in Wales.

Table 1.14 Area of woodland in GB approved for FWPS grant

| Year (ending 31 March) | hectares | | | |
|------------------------|----------|---------|----------|-------|
| | 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 |
| 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 |
| 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 |
| 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 |

Source: Woodland Grant Scheme

The Energy Crop Scheme (England)

The Energy Crop Scheme (ECS) is run by Defra (Department for Environment, Food and Rural Affairs) in partnership with the Forestry Commission. 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 669 hectares of short rotation coppice and 539 hectares of miscanthus have been agreed under the Energy Crop Scheme in England, as at September 2004.

Table 1.15 Energy Crop Scheme: Number of applications and area of land

| | Number | Area (ha) |
|---|--------|-----------|
| Short rotation coppice | | |
| Live agreements | 44 | 669 |
| Applications still being processed ¹ | 3 | 41 |
| Miscanthus | | |
| Live agreements | 36 | 539 |
| Applications still being processed ¹ | 11 | 169 |

Source: Defra

Notes

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



2. UNITED KINGDOM GROWN TIMBER AND WOOD PRODUCTS

This section covers the production of timber and other products 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 for Great Britain in Tables 2.1–2.9 is taken from the National Statistics publication *British Timber Statistics 2003*.

Information on employment within the forestry and primary wood processors sectors is given in section 6. Details on the number of businesses involved in forestry and primary wood processing can be found in Appendix B.

Wood production

Figures for production are expressed in standing volumes (thousand m³ overbark standing). One m³ overbark standing weighs approximately 0.82 tonnes (softwood) or 0.90 tonnes (hardwood) when freshly felled. Further information on conversion factors between cubic metres and green tonnes is in Appendix E.

A total of 11.1 million cubic metres overbark standing was produced in the UK in 2003. This represented an increase of 12.3% from the 2002 total of 9.9 million cubic metres overbark standing.

| Table 2.1 Wood production | | | | | | |
|---|-------------|-----------------|----------------|--------------------------|------------------------|--------------------|
| thousand m ³ overbark standing | | | | | | |
| Calendar year | GB Softwood | | | GB Hardwood ¹ | N Ireland ² | UK Total |
| | FC woodland | Non-FC woodland | Total softwood | | | |
| 1970 | 1 490 | 900 | 2 390 | 1 300 | .. | 3 690 ³ |
| 1980 | 2 410 | 980 | 3 390 | 1 300 | 100 | 4 790 |
| 1990 | 3 460 | 2 200 | 5 660 | 1 250 | 210 | 7 120 |
| 1994 | 4 320 | 3 030 | 7 350 | 930 | 250 | 8 520 |
| 1995 | 4 130 | 3 480 | 7 610 | 970 | 250 | 8 830 |
| 1996 | 4 290 | 3 320 | 7 610 | 870 | 250 | 8 730 |
| 1997 | 4 570 | 3 420 | 7 990 | 890 | 260 | 9 150 |
| 1998 | 4 830 | 3 170 | 8 000 | 790 | 290 | 9 070 |
| 1999 | 5 440 | 3 070 | 8 510 | 740 | 320 | 9 580 |
| 2000 | 5 530 | 3 100 | 8 630 | 720 | 380 | 9 730 |
| 2001 | 5 140 | 3 480 | 8 630 | 710 | 400 | 9 730 |
| 2002 | 5 210 | 3 630 | 8 840 | 690 | 410 | 9 930 |
| 2003 | 5 370 | 4 670 | 10 040 | 620 | 480 | 11 150 |

Source: British Timber Statistics 2003 and Forest Service.

Notes

¹ Most hardwood production in Great Britain comes from non-FC woodland; the figures are estimates based on reported deliveries to wood processing industries.

² Most Northern Ireland production is from the Forest Service (mainly softwood). The figures shown include FS estimates of non-FS production.

³ Great Britain only.

Figures before 1994 are not National Statistics.

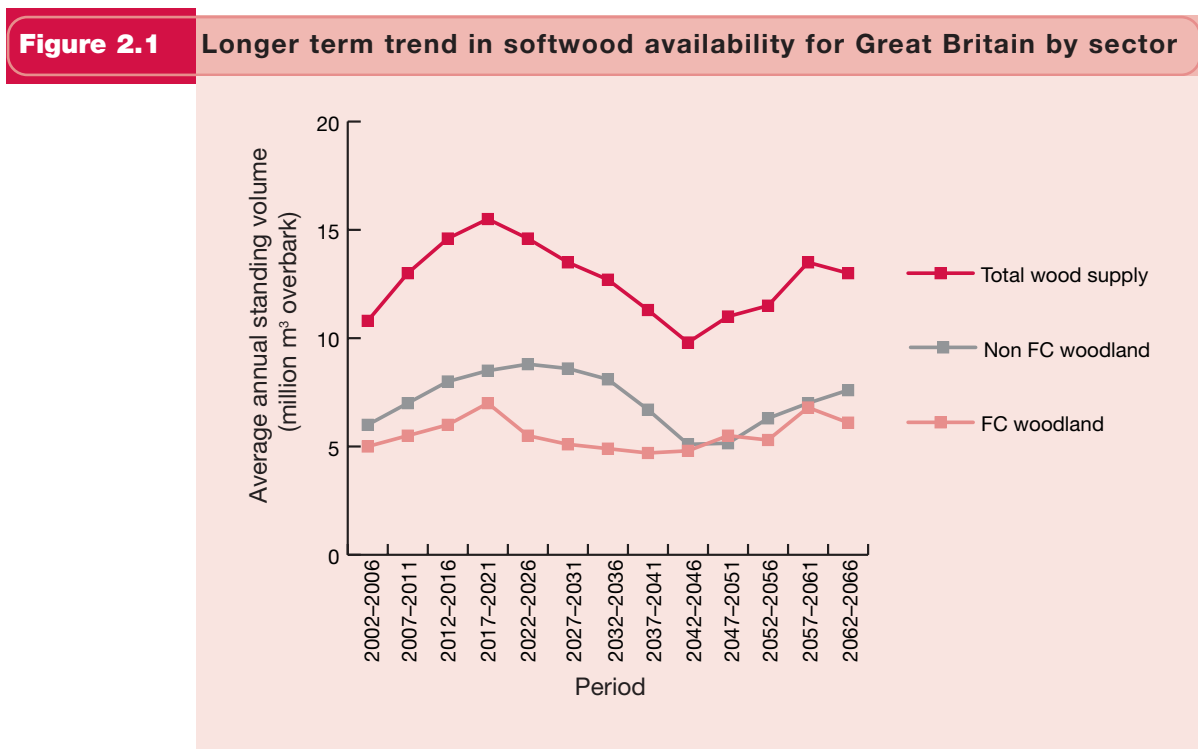
Figures have been rounded to the nearest 10 000 m³.

Softwood production forecasts are taken from the 2000 softwood assessment (not National Statistics). 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 are available in *Great Britain: new forecast of softwood availability* in the April 2001 edition of *Forestry & British Timber*.

Softwood production in Great Britain is projected to increase to an annual average of 15.5 million m³ overbark standing over the five year period 2017 to 2021. The majority of this softwood is projected to come from non-FC woodland.

| Table 2.2 Wood production forecasts – Great Britain | | | | | |
|--|----------------|--------------------|-------------------|----------|--------------------|
| thousand m ³ overbark standing | | | | | |
| Annual average in the five years: | Softwood | | | Hardwood | Total (GB only) |
| | FC woodland | Non-FC woodland | Total softwood | | |
| 2002–2006 | 5 130 | 5 750 | 10 870 | 1 000 | 11 870 |
| 2007–2011 | 5 980 | 7 080 | 13 060 | 1 000 | 14 060 |
| 2012–2016 | 6 240 | 8 200 | 14 450 | 1 000 | 15 450 |
| 2017–2021 | 6 850 | 8 630 | 15 480 | 1 000 | 16 480 |

Source: 2000 softwood assessment



Source: 2000 softwood assessment

Timber deliveries

Most figures for timber deliveries (inputs to wood processing) are expressed in green tonnes. Conversion factors to underbark volumes can be found in Appendix E. Note that information in Table 2.3 mainly relates to Great Britain, not United Kingdom. Almost all British grown roundwood is processed within Great Britain, but increasing quantities of roundwood have recently been exported for processing.

A total of 7.2 million green tonnes of GB grown softwood and 0.6 million green tonnes of GB grown hardwood were delivered to wood processing industries in Great Britain in 2003. This represents an increase of around 4% from the 2002 total for GB roundwood deliveries. Sawmills accounted for the majority of softwood deliveries (60%) but just 24% of hardwood deliveries. A further 21% of softwood was delivered to woodbased panel mills and 10% to integrated pulp and paper mills. Roundwood exports in 2003 accounted for 5% of all softwood deliveries.

Table 2.3 Deliveries of British grown roundwood to the wood processing industries in Great Britain³

| thousand green tonnes | | | | | | |
|-----------------------|----------|------------|-----------------------|----------------------------|----------------------|-----------------------|
| Year | Sawmills | Pulp mills | Woodbased panel mills | Miscellaneous ¹ | Exports ² | Total GB ¹ |
| Hardwood | | | | | | |
| 1994 | 346 | 190 | 96 | 205 | 0 | 837 |
| 1995 | 362 | 196 | 113 | 205 | 0 | 876 |
| 1996 | 282 | 202 | 91 | 205 | 0 | 780 |
| 1997 | 282 | 198 | 118 | 205 | 0 | 803 |
| 1998 | 245 | 180 | 77 | 205 | 0 | 707 |
| 1999 | 221 | 191 | 52 | 205 | 0 | 669 |
| 2000 | 195 | 200 | 50 | 205 | 0 | 650 |
| 2001 | 189 | 209 | 35 | 205 | 0 | 638 |
| 2002 | 160 | 210 | 43 | 205 | 0 | 618 |
| 2003 | 136 | 215 | 4 | 205 | 0 | 560 |
| Softwood | | | | | | |
| 1994 | 3 466 | 1 104 | 1 407 | 542 | 48 | 6 567 |
| 1995 | 3 429 | 1 106 | 1 699 | 521 | 8 | 6 763 |
| 1996 | 3 583 | 853 | 1 500 | 471 | 0 | 6 407 |
| 1997 | 3 655 | 940 | 1 690 | 456 | 0 | 6 741 |
| 1998 | 3 731 | 844 | 1 527 | 486 | 0 | 6 588 |
| 1999 | 4 027 | 660 | 1 613 | 489 | 24 | 6 814 |
| 2000 | 4 007 | 695 | 1 685 | 431 | 16 | 6 834 |
| 2001 | 4 123 | 668 | 1 680 | 428 | 61 | 6 960 |
| 2002 | 4 194 | 696 | 1 456 | 370 | 133 | 6 849 |
| 2003 | 4 316 | 704 | 1 486 | 362 | 342 | 7 210 |
| Total | | | | | | |
| 1994 | 3 812 | 1 294 | 1 503 | 747 | 48 | 7 404 |
| 1995 | 3 791 | 1 302 | 1 812 | 726 | 8 | 7 639 |
| 1996 | 3 865 | 1 055 | 1 591 | 676 | 0 | 7 187 |
| 1997 | 3 938 | 1 138 | 1 808 | 661 | 0 | 7 545 |
| 1998 | 3 977 | 1 024 | 1 604 | 691 | 0 | 7 296 |
| 1999 | 4 248 | 851 | 1 665 | 694 | 24 | 7 482 |
| 2000 | 4 202 | 895 | 1 735 | 636 | 16 | 7 483 |
| 2001 | 4 312 | 877 | 1 715 | 633 | 61 | 7 598 |
| 2002 | 4 354 | 906 | 1 499 | 575 | 133 | 7 467 |
| 2003 | 4 452 | 919 | 1 490 | 567 | 342 | 7 770 |

Source: British Timber Statistics 2003.

Notes

¹ These figures were estimated by, or partly composed of estimates made by, the Supply and Demand Sub-committee of the Forestry Commission Advisory Panel.

² Exports here are the quantities of wood 'exported' (in this case including transfers to Northern Ireland) without going to a wood processing industry in Great Britain.

³ Figures for sawmills (1994–2002) and miscellaneous (1999–2002) have been revised from Forestry Statistics 2003 in light of additional information received.

Sawmills

The information in Tables 2.4 and 2.5 is for the sawing of logs of United Kingdom origin only. Any other activity (such as sawing of imported logs, or further processing of wood rough-sawn by other businesses) is excluded.

Data for Great Britain are collected by the Forestry Commission in an annual Sawmill Survey. For more detail of Great Britain sawmills, see *British Timber Statistics 2003*. Figures for Northern Ireland are provided by the Forest Service.

Consumption is expressed as the total volume of roundwood (excluding bark) delivered. Conversion factors to green tonnes or overbark volumes are given in Appendix E. Production is expressed in terms of the volume of sawnwood produced.

In 2003 UK sawmills consumed a total of 4.5 million m³ underbark of softwood, producing 2.7 million m³ sawnwood. A further 121 thousand m³ underbark of hardwood was consumed, producing 70 thousand m³ sawnwood.

Table 2.4 Consumption and production of UK timber by sawmills¹

| | Consumption of roundwood (thousand m ³ underbark) | | Production of sawn timber (thousand m ³) | |
|------|---|----------|---|----------|
| | Hardwood | Softwood | Hardwood | Softwood |
| 1994 | 305 | 3 538 | 174 | 2 165 |
| 1995 | 319 | 3 507 | 184 | 2 144 |
| 1996 | 249 | 3 659 | 147 | 2 193 |
| 1997 | 249 | 3 736 | 138 | 2 268 |
| 1998 | 217 | 3 825 | 121 | 2 293 |
| 1999 | 195 | 4 137 | 114 | 2 455 |
| 2000 | 172 | 4 149 | 102 | 2 445 |
| 2001 | 167 | 4 271 | 93 | 2 536 |
| 2002 | 142 | 4 349 | 81 | 2 590 |
| 2003 | 121 | 4 525 | 70 | 2 683 |

Source: British Timber Statistics 2003 and Forest Service.

Notes

¹ Figures for 1994–2002 have been revised from Forestry Statistics 2003 in light of additional information received.

Table 2.5 Number of sawmills in the United Kingdom

| Size category production ¹ | UK | England | Scotland | Wales | N Ireland |
|---------------------------------------|------------|------------|-----------|-----------|-----------|
| <1 000 m ³ | 95 | 58 | 23 | 7 | 7 |
| 1 000–4 999 m ³ | 84 | 50 | 24 | 4 | 6 |
| 5 000–24 999 m ³ | 43 | 17 | 18 | 7 | 1 |
| 25 000–49 999 m ³ | 12 | 4 | 5 | 2 | 1 |
| ≥50 000 m ³ | 16 | 4 | 9 | 2 | 1 |
| Total | 250 | 133 | 79 | 22 | 16 |

Source: British Timber Statistics 2003 and Forest Service.

Notes

¹ Size category for GB mills is based on sawnwood production from GB timber only. For mills in Northern Ireland, size category is based on total 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 newsprint (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 0.9 million green tonnes of UK roundwood in 2003 (mainly softwood) and a further 0.2 million green tonnes of sawmill products.

| Table 2.6 Inputs to integrated pulp and paper mills ¹ | | | | | | | | | | |
|--|--------------|----------|--------------------|----------|----------------|----------|------------------|----------|----------|----------|
| thousand green tonnes | | | | | | | | | | |
| Year | UK roundwood | | Imported roundwood | | Imported chips | | Sawmill products | | Total | |
| | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood |
| 1994 | 190 | 1104 | 3 | 2 | .. | .. | 18 | 176 | 211 | 1 282 |
| 1995 | 196 | 1106 | 0 | 4 | .. | .. | 4 | 284 | 200 | 1 394 |
| 1996 | 202 | 853 | 0 | 0 | .. | .. | 0 | 305 | 202 | 1 158 |
| 1997 | 198 | 940 | 0 | 0 | 0 | 20 | 0 | 279 | 198 | 1 239 |
| 1998 | 180 | 844 | 0 | 0 | 0 | 15 | 0 | 277 | 180 | 1 136 |
| 1999 | 191 | 660 | 0 | 0 | 0 | 9 | 0 | 295 | 191 | 964 |
| 2000 | 200 | 695 | 18 | 0 | 0 | 1 | 0 | 308 | 218 | 1 004 |
| 2001 | 209 | 668 | 0 | 0 | 0 | 0 | 0 | 323 | 209 | 991 |
| 2002 | 210 | 696 | 0 | 0 | 0 | 0 | 0 | 307 | 210 | 1 003 |
| 2003 | 215 | 704 | 0 | 0 | 0 | 0 | 0 | 234 | 215 | 938 |

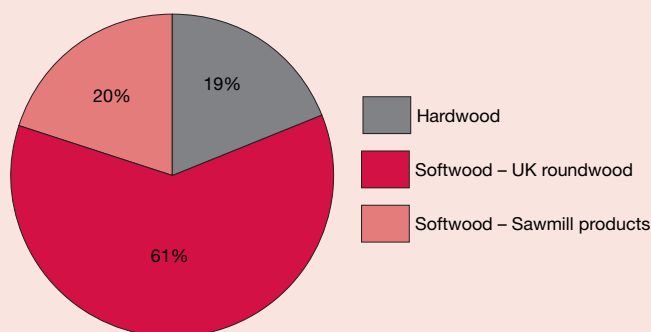
Source: British Timber Statistics 2003.

Notes

¹ This table excludes inputs of recycled paper and cardboard.

Figure 2.2 Inputs to integrated pulp and paper mills 2003

Note that this figure excludes inputs of recycled paper and cardboard.



Source: British Timber Statistics 2003.

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.

Around one half of UK grown roundwood used in integrated pulp and paper mills is obtained from Scotland. A further one third is obtained from England and the remaining 18% from Wales.

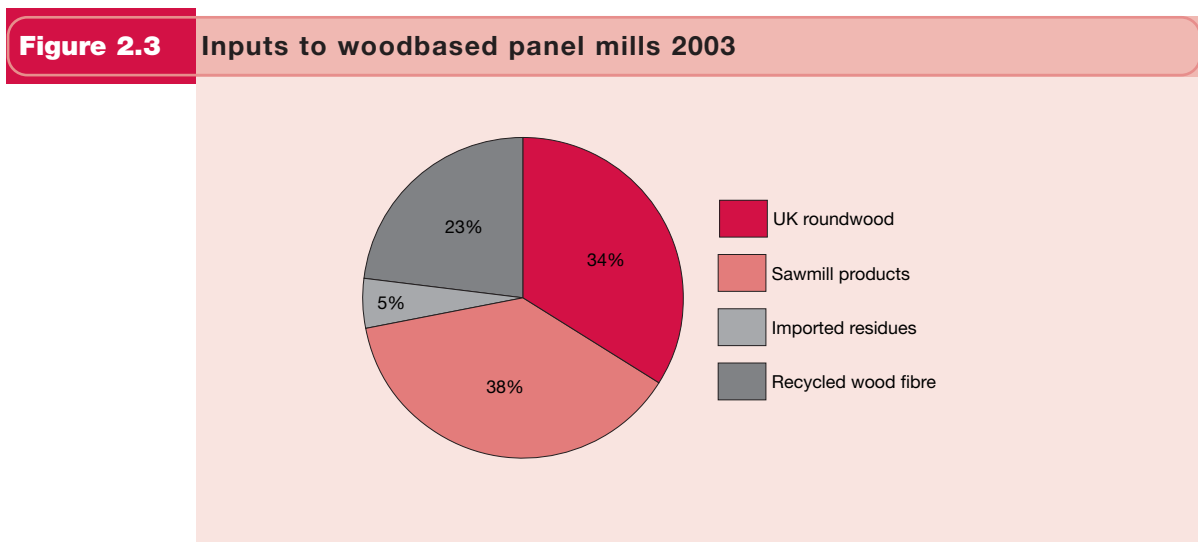
| Table 2.7 UK grown roundwood used in integrated pulp and paper mills | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| thousand green tonnes | | | | | | | | | | |
| Year | UK | | England | | Scotland | | Wales | | N Ireland | |
| | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood |
| 1994 | 190 | 1 104 | 176 | 184 | 0 | 668 | 14 | 252 | 0 | 0 |
| 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 |

Source: British Timber Statistics 2003.

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 account for 38% of all inputs to woodbased panel mills. A further 34% is obtained from UK roundwood and 23% from recycled wood fibre.



Source: British Timber Statistics 2003.

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 | | Imported roundwood | | Sawmill products ² | | Imported wood products and products from imported wood ³ | | Total | | |
| | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Recycled wood fibre ⁴ |
| 1994 | 96 | 1 407 | 15 | 65 | 21 | 1 368 | 10 | 156 | 142 | 2 996 | .. |
| 1995 | 113 | 1 699 | 7 | 23 | 21 | 1 521 | 11 | 162 | 152 | 3 405 | .. |
| 1996 | 91 | 1 500 | 0 | 3 | 28 | 1 542 | 21 | 160 | 140 | 3 205 | .. |
| 1997 | 118 | 1 690 | 0 | 0 | 40 | 1 744 | 21 | 120 | 179 | 3 554 | .. |
| 1998 | 77 | 1 527 | 0 | 0 | 29 | 1 711 | 29 | 190 | 135 | 3 428 | .. |
| 1999 | 52 | 1 613 | 0 | 0 | 10 | 1 522 | 0 | 150 ⁵ | 62 | 3 285 | 400 |
| 2000 | 50 | 1 685 | 0 | 0 | 0 | 1 871 | 0 | 143 | 50 | 3 699 | 488 |
| 2001 | 35 | 1 680 | 5 | 0 | 0 | 1 675 | 20 | 132 | 60 | 3 487 | 675 |
| 2002 | 43 | 1 456 | 0 | 0 | 0 | 1 669 | 0 | 134 | 43 | 3 259 | 932 |
| 2003 | 4 | 1 486 | 0 | 0 | 4 | 1 682 | 0 | 225 | 8 | 3 393 | 993 |

Source: British Timber Statistics 2003.

Notes

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 Includes chips and shavings.

⁴ Recycled wood fibre is wood fibre recovered from both pre- and post-consumer wood waste for use in woodbased panel production.

⁵ Estimated by the United Kingdom Forest Products Association (UKFPA).

Miscellaneous uses of British wood (GB)

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. This table covers Great Britain only.

A total of 233 thousand green tonnes of GB softwood and an estimated 30 thousand green tonnes of GB hardwood were consumed by round fencing manufactures in 2003. Fuelwood accounted for a further 250 thousand green tonnes of roundwood (hardwood and softwood).

| Year | Fuelwood | | Poles | Woodwool | Fencing | | Other | | GB total | |
|------|-----------------------|-----------------------|-----------------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Hardwood ¹ | Softwood ¹ | Softwood ¹ | Softwood | Hardwood ¹ | Softwood ² | Hardwood ¹ | Softwood ¹ | Hardwood ¹ | Softwood ¹ |
| | thousand green tonnes | | | | | | | | | |
| 1994 | 150 | 100 | 4 | 7 | 30 | 406 | 25 | 25 | 205 | 542 |
| 1995 | 150 | 100 | 4 | 5 | 30 | 387 | 25 | 25 | 205 | 521 |
| 1996 | 150 | 100 | 4 | 5 | 30 | 337 | 25 | 25 | 205 | 471 |
| 1997 | 150 | 100 | 4 | 4 | 30 | 323 | 25 | 25 | 205 | 456 |
| 1998 | 150 | 100 | 4 | 4 | 30 | 353 | 25 | 25 | 205 | 486 |
| 1999 | 150 | 100 | 4 | 3 | 30 | 357 | 25 | 25 | 205 | 489 |
| 2000 | 150 | 100 | 4 | 3 | 30 | 299 | 25 | 25 | 205 | 431 |
| 2001 | 150 | 100 | 4 | 2 | 30 | 297 | 25 | 25 | 205 | 428 |
| 2002 | 150 | 100 | 4 | 0 | 30 | 241 | 25 | 25 | 205 | 370 |
| 2003 | 150 | 100 | 4 | 0 | 30 | 233 | 25 | 25 | 205 | 362 |

Source: British Timber Statistics 2003.

Notes

- ¹ These figures are estimated by, or partly composed of estimates made by, the former Supply and Demand Sub-committee of the Forestry Commission Advisory Panel.
- ² Fencing figures for 1999 to 2002 have been revised in light of additional information received.

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 management 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 under the Forest Stewardship Council in March 2004. This represented 42% of the total UK woodland area, but varied from 27% in England to 74% in Northern Ireland.

| | UK | England | Scotland | Wales | N Ireland |
|--|-----------|---------|----------|-------|-----------|
| Total woodland area (000 ha) | 2 817 | 1 115 | 1 330 | 286 | 86 |
| Certified area (000 ha) | 1 173 | 300 | 680 | 129 | 64 |
| No. certificates applying to woodland in one country | 44 | 29 | 11 | 3 | 1 |
| No. certificates applying to woodland in more than one country | 10 | | | | |
| Total no. certificates | 54 | | | | |

Source: Forest Stewardship Council.

Respondents to Forestry Commission surveys were asked to report on volumes certified. Over 50% of non-FC softwood removals in 2003 were from certified sources. Almost two thirds of sawmills' roundwood consumption and around one half of sawnwood production by sawmills in 2003 was certified. For round fencing manufacturers, around one third of total softwood consumption in 2003 was certified.

Table 2.11 Percentage of volume certified

| | % certified volume | |
|---|--------------------|------|
| | 2002 | 2003 |
| Removals¹ | | |
| Softwood from non-FC woodland | 40 | 54 |
| Sawmills | | |
| Consumption (softwood and hardwood) | 64 | 66 |
| Production ² (softwood and hardwood) | 61 | 49 |
| Round fencing manufacturers | | |
| Consumption (softwood) | 14 | 36 |

Source: British Timber Statistics 2003.

Notes

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

² A number of sawmills reported 100% certified production in 2002 and 70% certified production in 2003. It is believed that this may have occurred as a result of some confusion over what figure to report rather than any recent change in certified volumes output by these mills.

Sawmills and round fencing manufacturers were also asked whether they held a Chain of Custody certificate. Over one quarter of sawmills who provided data in 2003 reported that they held a Chain of Custody certificate. However, this proportion varied with size of mill, from just 14% of mills producing less than 5 thousand m³ sawnwood to around 60% of those producing 25 thousand m³ sawnwood or more. Around one quarter of round fencing manufacturers reported holding a Chain of Custody certificate.

Table 2.12 Chain of Custody certificates¹ – 2003

| | Mill holding certificate | Mills without certificate | Certification status not reported | Total |
|------------------------------------|--------------------------|---------------------------|-----------------------------------|-------|
| Sawmills | | | | |
| Size category production | | | | |
| <5 000 m ³ | 11 | 62 | 6 | 79 |
| 5 000–<24 999 m ³ | 10 | 11 | 2 | 23 |
| ≥25 000 m ³ | 13 | 4 | 5 | 22 |
| All mills | 34 | 77 | 13 | 124 |
| Round fencing manufacturers | | | | |
| All mills | 12 | 26 | 7 | 45 |

Source: British Timber Statistics 2003.

Notes

¹ Mills responding in 2003. Accounts for around 80% of total production for sawmills and almost 60% of total consumption by round fencing manufacturers.

Certification was also a topic in the 2003 Public Opinion of Forestry, a survey of 4120 adults across the UK (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 (47%), were then asked if they recognised either the FSC or PEFC symbols. Almost one third (31%) 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. 61% of respondents did not recollect seeing either symbol.

Table 2.13

Public Opinion of Forestry 2003: Respondents who had seen the FSC or PEFC logos on wood products

| | percent of respondents |
|------------|------------------------|
| FSC logo | 31 |
| PEFC logo | 8 |
| None | 61 |
| Don't know | 4 |

Base: UK adults who had been shopping for wood products: 1930
Source: UK Public Opinion of Forestry 2003.

Notes

¹ Includes multiple responses.

Other forest products

Very little information is currently available on other forest products. Data (not National Statistics) for Christmas tree sales by FC and FS are given in Table 2.14. This table will be expanded in the future if more information is collected.

Table 2.14

Christmas tree sales

| Year | Quantity (thousands) | | | Value (£ thousands) | | |
|---------|----------------------|----|-------|---------------------|------------------|-------|
| | FC | FS | Other | FC | FS | Other |
| 1996–97 | 137 | 11 | .. | .. | 102 | .. |
| 1997–98 | 155 | 10 | .. | 1 100 | 91 | .. |
| 1998–99 | 162 | 11 | .. | 1 100 | 89 | .. |
| 1999–00 | 112 | 10 | .. | 1 300 | 97 | .. |
| 2000–01 | 72 | 8 | .. | 1 300 | 113 ¹ | .. |
| 2001–02 | 65 | 7 | .. | 1 200 | 96 | .. |
| 2002–03 | 87 | 7 | .. | 1 278 | 93 | .. |
| 2003–04 | 68 | 3 | .. | 1 212 | 60 | .. |

Source: Forestry Commission and Forest Service (not National Statistics).

Notes

¹ Includes VAT.

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 published a Coniferous Standing Sales Price Index (CSSPI) every 6 months. The CSSPI gives values for overlapping 12 monthly periods and is available from the Forestry Commission website. A softwood sawlog price index, providing information on prices (delivered to roadside), of coniferous sawlogs produced by the Forestry Commission, is also published. 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 m³ overbark standing was £5.60 in nominal terms (£4.65 in 1996 prices) in the year to March 2004. This represents a fall of 5.2% in real terms compared to the previous year. Over the same time period, sawlog prices have fallen by 5.8%.

Table 2.15 Coniferous standing sales and sawlog price indices¹ for Great Britain

| Year ending | per m ³ overbark standing | | | |
|-------------|--|---|---------------------------------------|--------------------------------------|
| | Standing sales Nominal terms ² | Standing sales Real terms ^{3,4} | Sawlogs Nominal terms ² | Sawlogs Real terms ^{3,4} |
| 1982 | 40.0 | 80.2 | 57.0 | 113.2 |
| 1983 | 44.6 | 83.5 | 58.5 | 108.7 |
| 1984 | 56.3 | 100.6 | 73.9 | 131.2 |
| 1985 | 66.7 | 113.4 | 73.5 | 124.1 |
| 1986 | 75.4 | 121.6 | 81.2 | 130.1 |
| 1987 | 88.7 | 138.7 | 90.5 | 140.5 |
| 1988 | 102.7 | 152.1 | 91.0 | 134.3 |
| 1989 | 109.1 | 151.0 | 100.3 | 138.6 |
| 1990 | 99.4 | 128.4 | 99.5 | 128.2 |
| 1991 | 87.3 | 104.6 | 80.9 | 96.7 |
| 1992 | 76.4 | 86.3 | 83.3 | 93.7 |
| 1993 | 82.2 | 89.9 | 89.3 | 97.3 |
| 1994 | 91.5 | 97.4 | 103.4 | 109.7 |
| 1995 | 110.9 | 116.3 | 121.1 | 127.0 |
| 1996 | 104.6 | 106.6 | 108.6 | 110.7 |
| 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 | 49.8 | 45.5 | 83.9 | 76.6 |
| 2001 | 45.4 | 41.0 | 81.6 | 73.6 |
| 2002 | 43.2 | 38.0 | 75.3 | 66.2 |
| 2003 | 33.6 | 28.6 | 72.8 | 62.0 |
| 2004 | 32.6 | 27.1 | 70.3 | 58.4 |

Source: Coniferous Standing Sale Price Index

Notes

¹ The price indices are constructed from information on Forestry Commission sales only. September 1996 = 100.

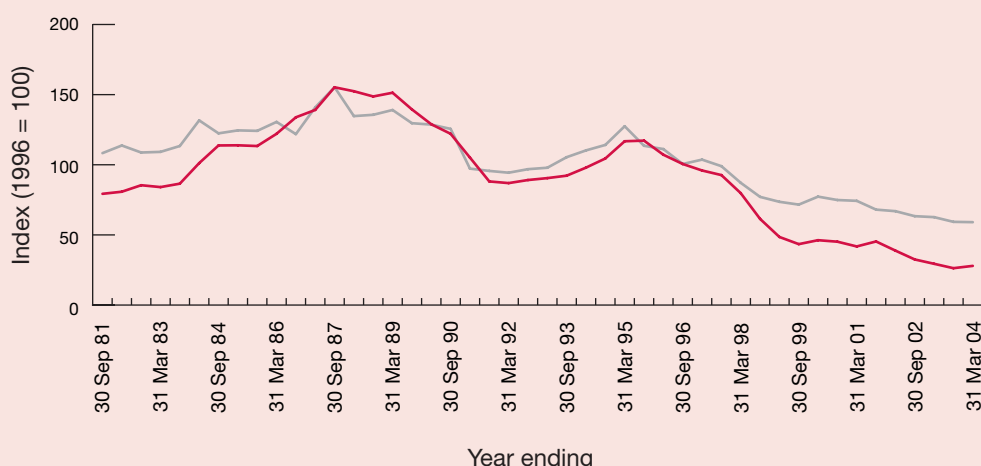
² Nominal prices are the actual prices at that point in time, so the nominal price index includes inflation.

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 2003 in light of revisions made by the Office for National Statistics (ONS) to the GDP deflator.

Figure 2.4**Coniferous standing sales and sawlog price indices in real terms (September 1996 = 100)**

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.



Source: Coniferous Standing Sale Price Index

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 2000 to 2003 is estimated to be -1.7% per annum. This represents a fall from the high of 9.9% per annum for the three year period 1993 to 1996.

Table 2.16**3 year rolling annualised returns from forestry**

| | Total return | percent per annum |
|---------|--------------|-------------------|
| 1992-95 | 4.4% | |
| 1993-96 | 9.9% | |
| 1994-97 | 7.9% | |
| 1995-98 | 4.5% | |
| 1996-99 | -3.0% | |
| 1997-00 | -5.2% | |
| 1998-01 | -5.4% | |
| 1999-02 | -3.2% | |
| 2000-03 | -1.7% | |

Source: IPD UK Forestry Index 2004.



3. IMPORTS, EXPORTS AND APPARENT CONSUMPTION OF WOOD PRODUCTS

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 Customs & Excise. 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 factors in Table E.1, Appendix E, which convert to standing volumes overbark.

Apparent consumption is the amount of timber (measured as wood raw 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 figure does not include any allowance for recycled wood and waste paper within the United Kingdom. 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 8.0 million m³ WRME underbark in 2003. A further 49.7 million m³ WRME underbark of wood and wood products were imported to the UK and 12.6 million m³ WRME underbark were exported, giving an apparent consumption of 45.0 million m³ WRME underbark.

Table 3.1 Apparent consumption of wood in the UK¹

| Year | million m ³ WRME underbark | | | |
|------|---------------------------------------|---------|---------|----------------------|
| | UK production ² | Imports | Exports | Apparent consumption |
| 1991 | 6.5 | 43.2 | 5.0 | 44.8 |
| 1992 | 6.6 | 43.5 | 5.1 | 45.0 |
| 1993 | 6.8 | 42.2 | 4.5 | 44.5 |
| 1994 | 7.4 | 47.6 | 5.8 | 49.2 |
| 1995 | 7.6 | 44.3 | 6.0 | 45.9 |
| 1996 | 7.2 | 45.1 | 5.4 | 46.9 |
| 1997 | 7.5 | 47.7 | 6.8 | 48.4 |
| 1998 | 7.3 | 46.8 | 7.0 | 47.0 |
| 1999 | 7.5 | 46.8 | 7.4 | 46.9 |
| 2000 | 7.6 | 48.9 | 7.7 | 48.8 |
| 2001 | 7.7 | 50.2 | 8.2 | 49.8 |
| 2002 | 7.6 | 49.1 | 9.5 | 47.2 |
| 2003 | 8.0 | 49.7 | 12.6 | 45.0 |

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

Notes

¹ Figures for 1999 to 2002 have been revised from Forestry Statistics 2003 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 – 2003

| Product | Unit | UK production ³ | Imports | Exports | Apparent consumption |
|-------------------------------|---------------------|----------------------------|--------------|--------------|----------------------|
| Sawnwood | 1000 m ³ | 2 753 | 8 695 | 355 | 11 092 |
| <i>Coniferous</i> | | 2 683 | 7 958 | 342 | 10 299 |
| <i>Non-coniferous</i> | | 70 | 736 | 14 | 793 |
| Woodbased panels | 1000 m ³ | 3 361 | 3 499 | 531 | 6 329 |
| Veneer sheets | | 0 | 28 | 5 | 23 |
| Plywood | | 0 | 1 253 | 65 | 1 188 |
| Particleboard | | 2 526 | 1 232 | 256 | 3 502 |
| Fibreboard | | 835 | 987 | 205 | 1 616 |
| Paper & paperboard | 1000 mt | 6 226 | 7 086 | 1 418 | 11 894 |
| Newsprint | | 1 038 | 1 523 | 239 | 2 322 |
| Other graphic papers | | 1 494 | 3 368 | 543 | 4 319 |
| Sanitary & household papers | | 808 | 133 | 24 | 917 |
| Packaging materials | | 2 240 | 1 561 | 560 | 3 241 |
| Other paper & paperboard | | 646 | 501 | 53 | 1 094 |

Source: UK Overseas Trade Statistics and deliveries to wood processing industries, as in Table 2.3.

Notes

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.

³ UK production of sawnwood is production from UK timber only. Production of other products is the output of wood processors in the UK, using UK or imported roundwood.

'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 manufactures (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 2003 were imported as softwood (round and sawn). A further one third were imported as paper, 16% were imported as woodbased panels and 13% as pulp. Paper (29%) and recovered paper (43%) accounted for the majority of exports of wood products from the UK in 2003.

| Table 3.3 UK imports and exports (WRME volumes)¹ | | | | | | | thousand m ³ WRME underbark |
|--|------------------------------|----------|-------------------|-----------------------------|--------|-----------------|--|
| | Wood (round and sawn) | | | Paper and paperboard | | | Total wood and wood products |
| | Softwood | Hardwood | Wood-based panels | Paper | Pulp | Recovered Paper | |
| Imports | | | | | | | |
| 1960 ² | 18 300 | | 2 500 | 3 500 | 11 700 | | 36 000 |
| 1970 ² | 15 900 | | 3 400 | 7 300 | 13 700 | | 40 300 |
| 1980 ² | 11 500 | | 3 600 | 9 800 | 9 800 | | 34 700 |
| 1990 ² | 20 300 | | 5 700 | 13 800 | 8 600 | | 48 400 |
| 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 | 13 784 | 1 464 | 6 449 | 17 439 | 7 518 | 179 | 46 832 |
| 2000 | 15 263 | 1 767 | 7 092 | 16 493 | 7 865 | 400 | 48 880 |
| 2001 | 15 278 | 1 855 | 7 353 | 18 614 | 6 985 | 144 | 50 228 |
| 2002 | 16 131 | 2 016 | 8 279 | 15 500 | 6 951 | 213 | 49 089 |
| 2003 | 17 274 | 2 392 | 8 030 | 15 160 | 6 515 | 280 | 49 651 |
| Exports | | | | | | | |
| 1960 ² | | | not compiled | | | | 800 |
| 1970 ² | | | | | | | 1 200 |
| 1980 ² | | | | | | | 2 300 |
| 1990 ² | | | | | | | 4 700 |
| 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 | 391 | 193 | 1 359 | 4 071 | 124 | 1 311 | 7 448 |
| 2000 | 502 | 347 | 1 206 | 3 900 | 32 | 1 712 | 7 699 |
| 2001 | 833 | 277 | 1 467 | 3 532 | 12 | 2 033 | 8 154 |
| 2002 | 833 | 239 | 1 597 | 3 355 | 23 | 3 454 | 9 501 |
| 2003 | 1 093 | 481 | 1 882 | 3 653 | 5 | 5 459 | 12 572 |

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

Notes

¹ Figures for 1999 to 2002 have been revised from Forestry Statistics 2003 to reflect revisions to import and export data.

² Data for 1990 and earlier are rounded to the nearest 100 000 m³.

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 (pulp of other fibrous cellulosic material)
- 633 (cork manufactures)
- 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 2003 was £7.7 billion. Exports were valued at £2.6 billion.

Table 3.4 UK imports and exports (current prices)

| | Imports | | | Exports | | | £million |
|------|------------------------|---------------------|-----------------------------|------------------------|---------------------|-----------------------------|----------|
| | 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 | 5 658 | 1 787 | 7 444 | 1 218 | 1 231 | 2 449 | |
| 2000 | 6 141 | 1 927 | 8 068 | 1 258 | 1 271 | 2 529 | |
| 2001 | 6 469 | 1 978 | 8 448 | 1 216 | 1 308 | 2 524 | |
| 2002 | 5 766 | 1 960 | 7 726 | 1 164 | 1 273 | 2 436 | |
| 2003 | 5 710 | 2 010 | 7 721 | 1 307 | 1 254 | 2 561 | |

Source: UK Overseas Trade Statistics

Notes

¹ Figures for 1999 to 2002 have been revised from Forestry Statistics 2003 to reflect revisions to import and export data.

Sweden, Latvia and Finland provided the majority of imports of sawn softwood to the UK in 2002. Sawn hardwood was most commonly imported from Latvia, USA and Estonia. UK imports of plywood tended to come from countries outwith the EU, such as Brazil and Indonesia, whilst most particleboard and fibreboard imports came from within the EU. Canada and the USA were amongst the principal sources of wood pulp for the UK, whilst the majority of paper and paperboard imports originated in Sweden, Finland and Germany.

Table 3.5 Country of origin of wood imports to the UK 2002¹

| | % of total UK imports (volume) in each category | | | | | | |
|--------------------------------|---|---------------|-----------|---------------|------------|-----------|----------------------|
| | Sawn softwood | Sawn hardwood | Plywood | Particleboard | Fibreboard | Wood pulp | Paper and paperboard |
| Sweden | 31 | 1 | 1 | 2 | 3 | 12 | 20 |
| Finland | 17 | 1 | 9 | 6 | 2 | 9 | 26 |
| Germany | 1 | 6 | 4 | 11 | 14 | 1 | 17 |
| France | 0 | 4 | 1 | 17 | 4 | 1 | 4 |
| Ireland | 2 | 1 | 0 | 5 | 20 | 0 | 0 |
| Other EU-15 | 1 | 5 | 3 | 16 | 38 | 9 | 11 |
| Total EU-15² | 53 | 18 | 18 | 58 | 81 | 32 | 79 |
| Latvia | 25 | 26 | 5 | 0 | 1 | 0 | 0 |
| Estonia | 5 | 10 | 1 | 0 | 3 | 0 | 0 |
| Other EU-25 | 2 | 3 | 1 | 0 | 11 | 0 | 1 |
| Total EU-25² | 86 | 56 | 25 | 59 | 96 | 32 | 80 |
| USA | 0 | 13 | 0 | 0 | 3 | 23 | 6 |
| Canada | 2 | 3 | 1 | 0 | 0 | 21 | 5 |
| Brazil | 0 | 2 | 36 | 0 | 1 | 14 | 0 |
| Indonesia | 0 | 1 | 17 | 0 | 0 | 1 | 0 |
| Other non-EU | 12 | 24 | 20 | 41 | 0 | 10 | 8 |
| Total non-EU | 14 | 44 | 75 | 41 | 4 | 68 | 20 |

Source: FAO and UK Overseas Trade Statistics.

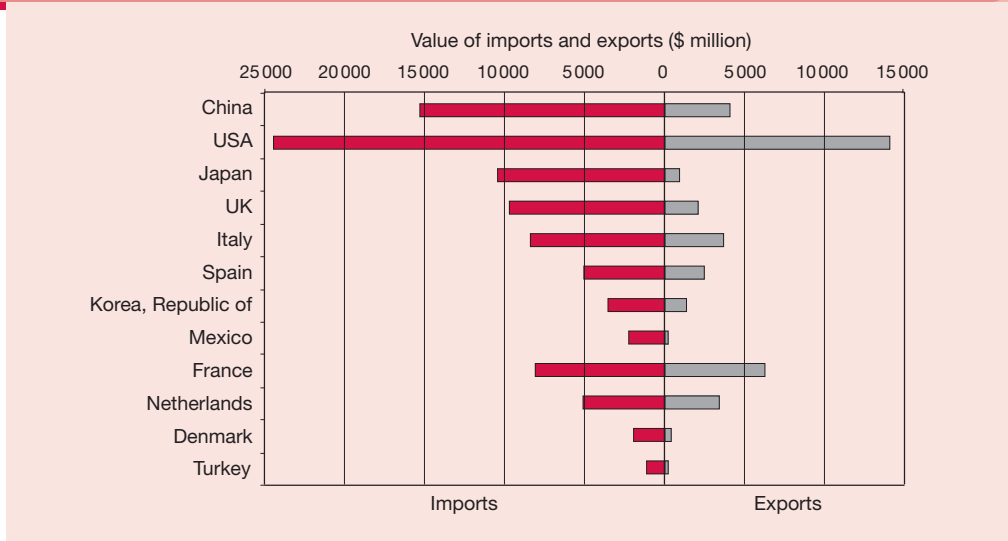
Notes

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 in 2002; EU-25 includes the 10 new member states from May 2004.

The UK was the fourth largest net importer of forest products in 2003, behind China, USA and Japan.

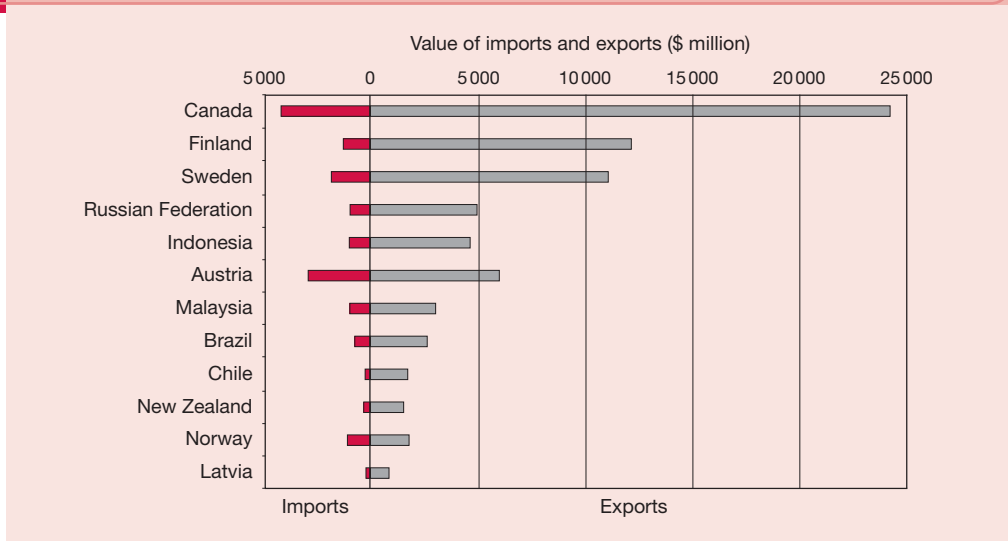
Figure 3.1 World trade in forest products: largest net importers, 2003



Source: FAO

The largest net exporters of forest products in 2003 were Canada, Finland and Sweden.

Figure 3.2 World trade in forest products: largest net exporters, 2003



Source: FAO



4. 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 is 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 | 30.1 ¹ | 29.7 ¹ | 9.2 | 19.4 ¹ | 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).

Notes

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 sector organisations such as the National Trust, Wildlife Trust, Woodland Trust and RSPB.

| Type of protection | | Summary of areas under 'protective' ownership (non-statutory protection) | | | | | thousands of hectares |
|-------------------------|-----------------|---|-------|---------|----------|-------|-----------------------|
| | | UK | GB | England | Scotland | Wales | N Ireland |
| Public Sector | | | | | | | |
| FC/FS | ASNW | 11.4 | 11.4 | 2.7 | 7.8 | 0.8 | - |
| | PAWS | 131.1 | 131.1 | 80.6 | 33.2 | 17.4 | - |
| | 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.

| Type of protection | | Summary of areas under WGS management (non-statutory protection) in GB | | | thousands of hectares |
|--------------------|--------------------|---|---------|----------|-----------------------|
| | | 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

| | Forest sink (MtC/yr ¹) | Forest sink due to expansion of woodland due to trees planted since 1990 (MtC/yr ¹) |
|------|---------------------------------------|---|
| 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).

Notes

¹ Million tonnes carbon per year.

Damage to woodland

Compared with some other European Union member states, the United Kingdom has only small losses of woodland to forest fires. No information is collected on fire damage in non-FC/FS owned woodland.

Table 4.6 Fire damage

| Year | Forestry Commission | Forest Service | UK (FC/FS woodland only) |
|--|------------------------|----------------|-----------------------------|
| Number of fires | | | |
| 1995–96 | 888 | 18 | 906 |
| 1996–97 | 478 | 30 | 508 |
| 1997–98 | 369 | 6 | 375 |
| 1998–99 | 155 | 3 | 158 |
| 1999–00 | 78 | 3 | 81 |
| 2000–01 | 41 | 6 | 47 |
| 2001–02 | 350 | 13 | 363 |
| 2002–03 | 259 | 1 | 260 |
| 2003–04 | 61 | 16 | 77 |
| Area of woodland burnt (hectares) | | | |
| 1995–96 | 466 | 94 | 560 |
| 1996–97 | 450 | 135 | 585 |
| 1997–98 | 310 | 22 | 332 |
| 1998–99 | 45 | 9 | 54 |
| 1999–00 | 165 | 6 | 171 |
| 2000–01 | 181 | 85 | 266 |
| 2001–02 | 141 | 85 | 226 |
| 2002–03 | 147 | 1 | 148 |
| 2003–04 | 146 | 91 | 237 |

Source: Forestry Commission and Forest Service.



5. RECREATION

The Forestry Commission obtains information about woodland visits and visitors from the Day Visits Survey, Public Opinion of Forestry Survey 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 are 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 $8\% \pm 0.9\%$ in GB, $8\% \pm 1.0\%$ in England, $9\% \pm 1.7\%$ in Scotland and $7\% \pm 1.5\%$ 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.

| | Number of day visits to woodland | | | |
|--------|----------------------------------|---------|----------|-------|
| | GB | England | Scotland | Wales |
| | 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 |
| 2002/3 | 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 |
| | 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).

Notes

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

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 2003 (not National Statistics) is a set of three surveys covering:

- A representative sample of 4120 adults across the United Kingdom;
- A representative sample of 1000 adults across Scotland; and
- A representative sample of 1000 adults across Wales.

The information in Figures 5.1 and 5.2 and Tables 5.3 and 5.4 is taken from the UK and country reports on the 2003 survey, which included comparisons with previous surveys. The survey was carried out in March 2003. Results from the UK survey of 4120 adults are accurate to within $\pm 2.3\%$ for questions where all respondents gave an answer.

In the 2003 survey, 67% of respondents said they had visited woodland in the last few years for walks, picnics or other recreation.

Table 5.3 Woodland visitors

| | % of respondents | | | | |
|------------------------------------|------------------|---------|----------|-------|-----------|
| | UK | England | Scotland | Wales | N Ireland |
| Visited woodland in last few years | 67 | 66 | 64 | 62 | 77 |

Source: Public Opinion of Forestry Surveys (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 62% visiting at least once a month in summer 2002 compared with 29% in winter 2002/3.

Figure 5.1 Frequency of visits to woodland



Source: Public Opinion of Forestry Survey 2003 (not National Statistics).

Respondents were also asked who they thought owned any of the forests or woodlands they had visited (Table 5.4). Voluntary bodies (e.g. National Trust, Woodland Trust) and the Forestry Commission/Forest Enterprise/Forest Service were the most popular responses (more than one response was possible for this question). Although similar, this is not directly comparable with the question in the 2002/3 GB Day Visits Survey (see Table 5.2), which asked about specific trips, rather than all forests visited.

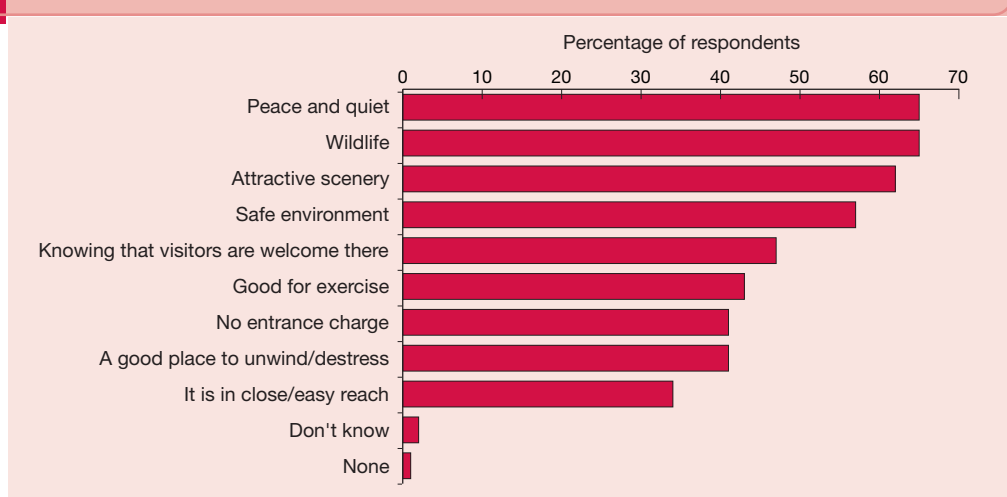
Table 5.4 Ownership of woodland visited

| Ownership | % of respondents who had visited woodland |
|---|---|
| Forestry Commission/Forest Enterprise (GB) or Forest Service (NI) | 40 |
| Voluntary bodies | 50 |
| <i>National Trust/National Trust for Scotland</i> | 42 |
| <i>Woodland Trust</i> | 16 |
| <i>Other voluntary body</i> | 4 |
| Local authorities | 33 |
| Private owners | 18 |
| None/Don't know | 17 |

Source: Public Opinion of Forestry Survey 2003 (not National Statistics).

Respondents to the survey were asked to identify the factors that were important to them when choosing to visit a woodland. Peace and quiet (65%), wildlife (65%), attractive scenery (62%) and a safe environment (57%) were the most frequently stated reasons.

Figure 5.2 Factors important when choosing to visit a woodland



Source: Public Opinion of Forestry Survey 2003 (not National Statistics).

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; with the results summarised in *Forest Visitor Surveys*.

In Northern Ireland in 2003–04, a total of 446 thousand people visited those Forest Service sites where an admission charge was made.

Table 5.6 Day visitors to Northern Ireland Forest Service sites¹

| Year (ending 31 March) | N Ireland | thousands of people visiting sites |
|------------------------|-----------|------------------------------------|
| 1995–96 | 499 | |
| 1996–97 | 537 | |
| 1997–98 | 458 | |
| 1998–99 | 382 | |
| 1999–00 | 403 | |
| 2000–01 | 402 | |
| 2001–02 | 403 | |
| 2002–03 | 460 | |
| 2003–04 | 446 | |

Source: Forest Service

Notes

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

Woodland recreation facilities (GB)

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 143 thousand hectares in Scotland, 136 thousand hectares in England and around 13 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 61 thousand hectares.

Table 5.7 Size of Forest Parks

| | | hectares |
|-----------------|-----------------|----------------|
| England | New Forest | 27 000 |
| | Forest of Dean | 11 000 |
| | Delamere | 1 000 |
| | Sherwood Pines | 1 200 |
| | Thetford | 19 000 |
| | North Riding | 12 000 |
| | Whinlatter | 1 200 |
| | Grizedale | 2 500 |
| | Kielder | 61 000 |
| | | 135 900 |
| Scotland | Glenmore | 3 500 |
| | Tay | 17 000 |
| | Queen Elizabeth | 20 000 |
| | Argyll | 21 000 |
| | Galloway | 77 000 |
| | Tweed Valley | 4 900 |
| | 143 400 | |
| Wales | Afan Argoed | 3 000 |
| | Coed-y-Brenin | 3 200 |
| | Gwydyr | 6 500 |
| | 12 700 | |

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 2004. A total of 588 sites were featured on the website: 270 (46%) in Scotland, 215 (37%) in England and 103 (18%) in Wales.

Almost all sites (87%) had parking facilities and four-fifths (80%) included walking activities.

| Table 5.8 | | Forestry Commission recreation facilities and activities^{1,2} – 2004 | | | |
|---------------------------|-----------|--|-----------------|--------------|--|
| | | as at August 2004 | | | |
| Facility | GB | England | Scotland | Wales | |
| Total sites on FC website | 588 | 215 | 270 | 103 | |
| Facilities | | | | | |
| Parking – Free | 455 | 165 | 218 | 72 | |
| Parking – Paid | 58 | 34 | 12 | 12 | |
| Information | 224 | 101 | 106 | 17 | |
| Easy Access | 143 | 82 | 42 | 19 | |
| Toilet | 137 | 66 | 56 | 15 | |
| Refreshments | 74 | 46 | 23 | 5 | |
| Visitor Centre | 49 | 24 | 20 | 5 | |
| Shop | 34 | 18 | 11 | 5 | |
| Activities | | | | | |
| Walking | 470 | 172 | 228 | 70 | |
| Cycling | 229 | 98 | 104 | 27 | |
| Picnic | 224 | 94 | 93 | 37 | |
| Horse Riding | 124 | 61 | 43 | 20 | |
| Wildlife Activities | 91 | 51 | 34 | 6 | |
| Educational | 89 | 47 | 28 | 14 | |
| View Point | 65 | 16 | 46 | 3 | |
| Heritage | 56 | 19 | 33 | 4 | |
| Play Area | 51 | 28 | 16 | 7 | |
| Orienteering | 49 | 28 | 15 | 6 | |
| Fishing | 45 | 12 | 21 | 12 | |
| Barbecue | 43 | 24 | 6 | 13 | |
| Forest Drive | 24 | 13 | 10 | 1 | |
| Camping | 24 | 10 | 12 | 2 | |
| Arts | 22 | 14 | 8 | 0 | |
| Arboretum | 14 | 7 | 3 | 4 | |
| Watersports | 6 | 2 | 3 | 1 | |
| Skiing | 2 | 0 | 2 | 0 | |

Source: Forestry Commission

Notes

¹ Number of sites where a given facility or activity is present. These data are not directly comparable with numbers published for previous 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 22 thousand hectares of new planting had been achieved by March 2004. This has increased the woodland cover in these forests from an initial 7% to 9% of the total area by March 2004.

| Table 5.9 Community Forests | | | | | | |
|---|---------------------------------------|---|---|---|---|--|
| Name of Forest | Land area¹ (ha) | Initial woodland area (ha) | Initial % woodland cover | Target new planting (ha) | Achieved new planting to Mar 2004 (ha) | Population² (millions) |
| Community Forests | | | | | | |
| Forest of Avon | 57 300 | 3 380 | 6 | 6 726 | 472 | 1 |
| Forest of Mercia | 23 000 | 1 344 | 6 | 5 656 | 618 | 4 |
| Forest of Marston Vale | 15 800 | 569 | 4 | 4 120 | 840 | 1 |
| Great North Forest | 24 870 | 1 970 | 8 | 4 000 | 1 047 | 1 |
| Great Western Community Forest | 39 000 | 1 170 | 3 | 7 588 | 1 160 | 1 |
| Greenwood Community Forest | 43 800 | 4 530 | 10 | 5 750 | 1 209 | 2 |
| Mersey Forest | 92 500 | 3 700 | 4 | 8 140 | 2 606 | 4 |
| Red Rose Forest | 76 000 | 2 960 | 4 | 10 000 | 1 263 | 4 |
| South Yorkshire | 50 530 | 3 800 | 8 | 3 670 | 573 | 2 |
| The Tees Forest | 34 970 | 2 410 | 7 | 5 870 | 1 072 | 1 |
| Thames Chase Community Forest | 10 406 | 824 | 8 | 2 260 | 472 | 5 |
| Watling Chase Community Forest | 18 800 | 1 690 | 9 | 1 930 | 291 | 3 |
| Other community forestry initiatives | | | | | | |
| Black Country Urban Forest | 36 000 | 364 | 1 | 1 000 | 370 | 1 |
| Central Scotland Forest | 160 000 | 19 000 | 12 | 15 000 | 5 369 | 1 |
| ELWOOD (East Lancashire) | 126 000 | 10 691 | 9 | 1 000 | 327 | 0 |
| The National Forest | 50 200 | 3 010 | 6 | 13 554 | 4 627 | 10 |
| White Rose Forest | 202 100 | 9 100 | 5 | 12 126 | 115 | 2 |
| Total | 1 061 276 | 70 512 | 7 | 108 390 | 22 431 | |

Source: Forestry Commission

Notes

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).



6. EMPLOYMENT

This section contains information on the latest employment survey undertaken by the Forestry Commission.

Tables 6.1 and 6.2 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.

There were estimated to be a total of almost 30 thousand full-time equivalent employees in the forestry and primary wood processing industries in Great Britain in 1998/9. Around one half of employees were based in England, a further 36% were in Scotland and 14% in Wales. Over one third of all employees were employed by wood processing industries and a further 29% by private woodland owners.

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

| Employer ¹ | full-time equivalents | | | |
|------------------------------------|-----------------------|---------------|---------------|--------------|
| | 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).

Notes

¹ Figures include work by contractors as well as employees.

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

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

| Activity | full-time equivalents | | | |
|-------------------------|-----------------------|---------------|---------------|--------------|
| | 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 |
| 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 |

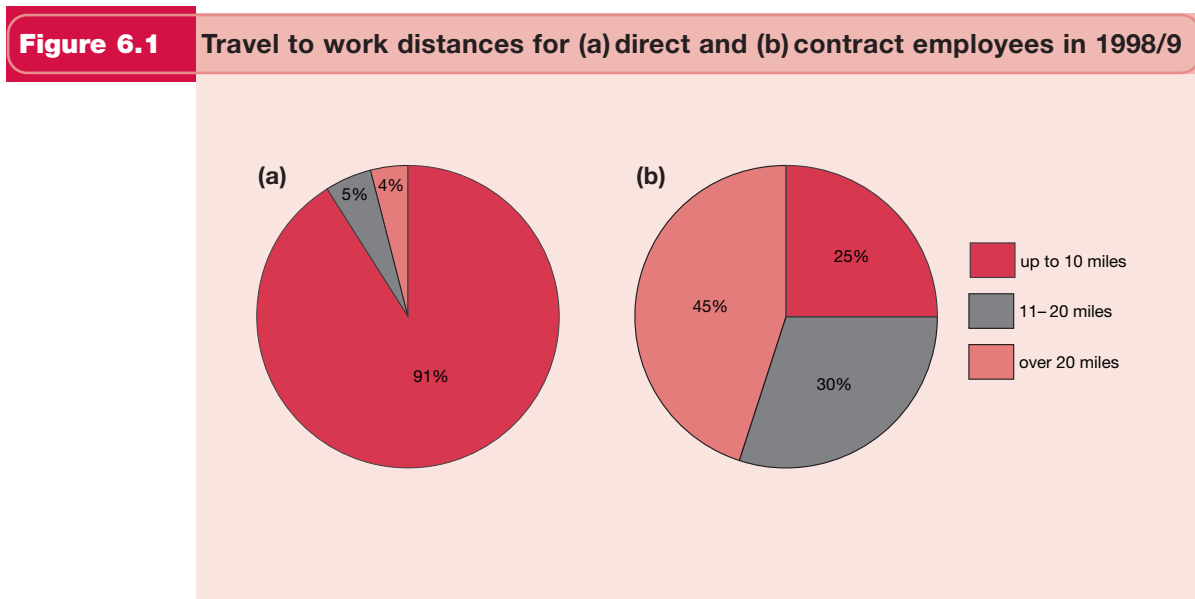
Source: Forest Employment Survey 1998/9 (not National Statistics).

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 |
| Contracts workers | 55 | 56 | 54 | 55 |
| Total | 71 | 72 | 68 | 68 |

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



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

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.



7. LAND-USE, ACQUISITIONS AND DISPOSALS

This section contains information on the land-use, land acquisition and land disposal activities of the Forestry Commission and the Forest Service.

Land-use

Woodland accounted for 75% of all Forestry Commission/Forest Service land in the UK in 2003–04. This proportion was highest in Wales (88%) and lowest in Scotland (71%).

Table 7.1 Land-use of the Forestry Commission and Forest Service

| Year (ending 31 March) | thousands of hectares | | | | |
|---------------------------------|-----------------------|---------|----------|-------|-----------------|
| | UK | England | Scotland | Wales | N Ireland |
| Woodland¹ | | | | | |
| 1980 | 945 | 252 | 501 | 138 | 54 ⁴ |
| 1990 | 956 | 235 | 533 | 130 | 58 |
| 2000 | 886 | 216 | 493 | 116 | 61 |
| 2001 ³ | 862 | 208 | 478 | 115 | 61 |
| 2002 | 856 | 206 | 475 | 113 | 61 |
| 2003 | 848 | 207 | 470 | 110 | 61 |
| 2004 | 841 | 205 | 465 | 110 | 62 |
| Other land^{1,2} | | | | | |
| 1980 | 390 | 51 | 298 | 23 | 18 ⁴ |
| 1990 | 258 | 40 | 191 | 11 | 16 |
| 2000 | 243 | 44 | 172 | 12 | 15 |
| 2001 ³ | 267 | 51 | 187 | 15 | 15 |
| 2002 | 273 | 51 | 192 | 16 | 14 |
| 2003 | 273 | 52 | 190 | 16 | 14 |
| 2004 | 274 | 53 | 191 | 16 | 14 |
| Total FC/FS land area | | | | | |
| 1980 | 1 335 | 303 | 800 | 161 | 72 ⁴ |
| 1990 | 1 214 | 275 | 723 | 141 | 75 |
| 2000 | 1 129 | 260 | 665 | 127 | 76 |
| 2001 ³ | 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 |

Source: Forestry Commission and Forest Service.

Notes

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 7.1.

² 'Other land' includes agricultural land and areas of moorland and mountain.

³ The apparent decrease in woodland cover in 2001 is due to a reclassification of Forestry Commission open land within the forest.

⁴ Area at the end of the 1979–80 planting season.

Acquisitions and disposals

Table 7.2 includes acquisitions and disposals of both woodland and other land.

Before 1980–81 figures were only published for woodland (either with trees or suitable for planting), and net of disposals, since the main focus was on the acquisition of land for planting. The average annual net acquisition of woodland in the 1970's was around 10 thousand hectares in Great Britain (mostly in Scotland).

A disposals programme was started after 1979, and ended with the introduction of a moratorium on new large-scale disposals in 1997.

For some land, the Forestry Commission has acquired only the leasehold, or the freehold has been acquired in a later year than the leasehold. In these cases the area is included when the leasehold is acquired.

A total of 953 hectares of land was acquired by the Forestry Commission/Forest Service in 2003–04 and 3490 hectares were disposed of, resulting in a net decrease of 2538 hectares. The majority of the acquisitions (58%) and disposals (74%) were in Scotland.

| Table 7.2 Land acquisitions and disposals | | | | | | |
|--|---------------|------------|---------|----------|-------|-------------------|
| Year (ending 31 March) | hectares | | | | | |
| | UK (FC/FS) | GB (FC) | England | Scotland | Wales | N Ireland (FS) |
| Acquisitions | | | | | | |
| average 1980–81 to 1989–90 | 2 911 | 2 472 | 136 | 2 087 | 250 | 439 |
| average 1990–91 to 1999–00 | 968 | 724 | 124 | 589 | 12 | 244 |
| 2000–01 ¹ | 1 088 | 1 012 | 696 | 316 | 0 | 76 |
| 2001–02 ¹ | 1 584 | 1 503 | 1 380 | 116 | 7 | 81 |
| 2002–03 ¹ | 660 | 596 | 261 | 89 | 246 | 64 |
| 2003–04 | 953 | 917 | 292 | 556 | 69 | 36 |
| Disposals | | | | | | |
| average 1980–81 to 1989–90 | 15 087 | 15 018 | 2 969 | 9 853 | 2 196 | 69 |
| average 1990–91 to 1999–00 | 9 571 | 9 428 | 1 497 | 6 390 | 1 541 | 143 |
| 2000–01 | 6 030 | 5 868 | 714 | 3 391 | 1 763 | 162 |
| 2001–02 | 3 100 | 3 090 | 613 | 2 060 | 417 | 10 |
| 2002–03 | 1 490 | 1 475 | 370 | 1 046 | 59 | 15 |
| 2003–04 | 3 490 | 3 490 | 559 | 2 577 | 354 | 1 |

Source: Forestry Commission and Forest Service.

Notes

¹ 2000–01 to 2002–03 figures are the acquisitions of plantation and plantable land.



Appendix A

SOURCES AND 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 in Great Britain is supplemented by various FC-run surveys of the forestry and primary wood processing industries. There are no comparable surveys covering Northern Ireland, so in some cases information for NI has been taken from estimates based on local knowledge, and in some cases only data for the FS estate are shown.

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 Appendix C. 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 UK.

There is no minimum size for a woodland. 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 Tables 1.1–1.6 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.

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.

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 estimates in this publication are not directly comparable with the Office for National Statistics (ONS)'s Annual Business Inquiry, for example.

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 British Timber Statistics (last published in August 2004), Forestry Facts & Figures (September 2004) and this publication, Forestry Statistics (November 2004). 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).

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.



Appendix B

FORESTRY AND PRIMARY WOOD PROCESSING BUSINESSES

Number of establishments in the primary wood processing industries

Table B.1 shows the number of primary wood processors, according to the sampling frames used for Forestry Commission surveys (and Forest Service data for Northern Ireland). The figures in Table B.1 do not correspond with the VAT registration information given in Figures B.1–B.4. 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 B.1–B.4 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 B.1–B.4 are excluded here (usually because they do not use British timber).

Table B.1

Number of establishments in the primary wood processing industries using UK grown roundwood

| Year | Sawmills | Pulp and paper mills | Woodbased panel mills | Round fencing manufacturers (GB only) | UK total ¹ |
|------|----------|----------------------|-----------------------|---------------------------------------|-----------------------|
| 1995 | 459 | 4 | 11 | 131 | 605 |
| 1996 | 412 | 4 | 11 | 119 | 546 |
| 1997 | 384 | 4 | 11 | 103 | 502 |
| 1998 | 351 | 4 | 11 | 99 | 465 |
| 1999 | 328 | 4 | 10 | 90 | 432 |
| 2000 | 305 | 4 | 10 | 85 | 404 |
| 2001 | 279 | 4 | 10 | 80 | 373 |
| 2002 | 258 | 4 | 10 | 67 | 339 |
| 2003 | 250 | 3 | 8 | 64 | 325 |

Notes

¹ 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

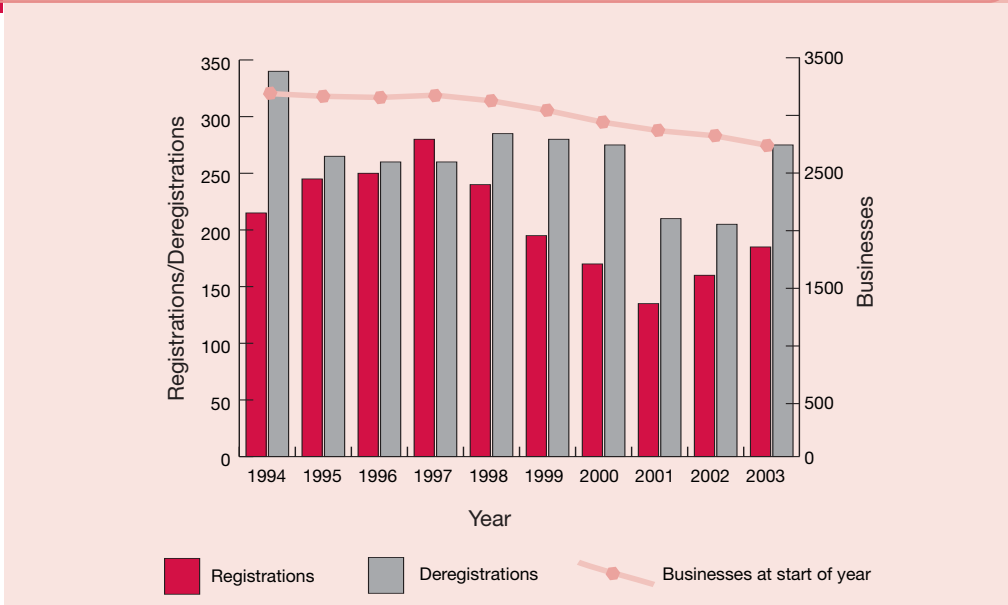
The Standard Industrial Classification (SIC) is the United Kingdom's classification of business activities. The main heading including forestry businesses is 020: Forestry and logging. The main headings for primary wood processing are 201: Sawmilling and planing of wood, impregnation of wood; 202: Manufacture 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 B.1–B.4 (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 B.1

Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 020: Forestry and logging¹

Values have been rounded to the nearest 5 businesses.



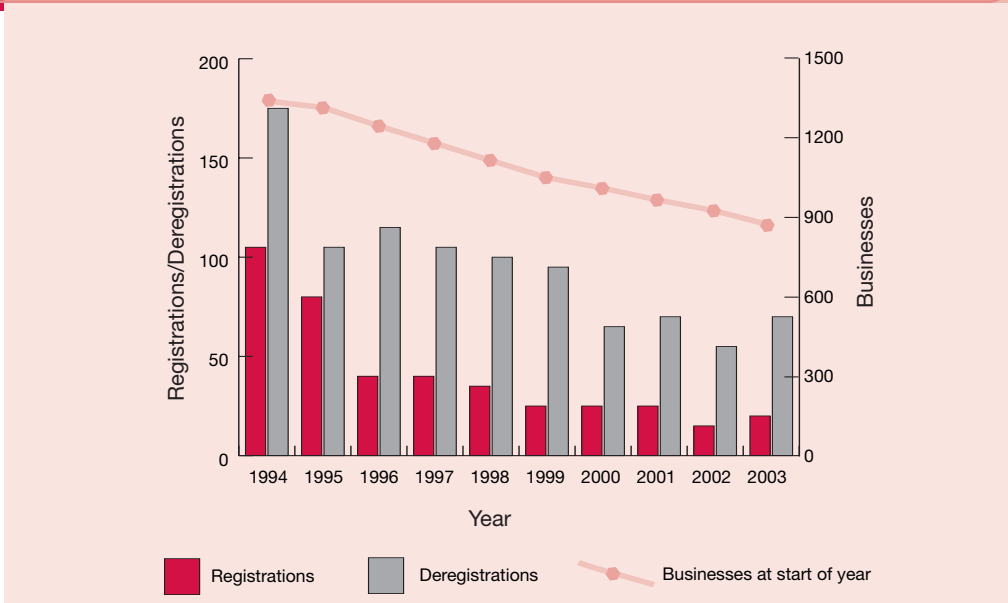
Notes

¹ Figures have been revised from Forestry Statistics 2003 to reflect revised data published by DTI.

Figure B.2

Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 201: Sawmilling and planing of wood, impregnation of wood¹

Values have been rounded to the nearest 5 businesses.



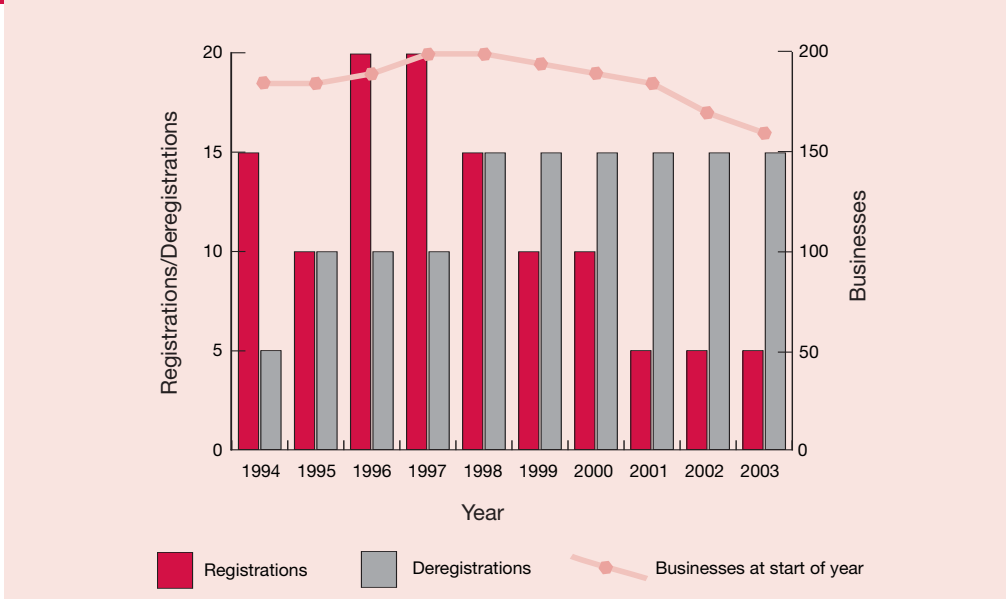
Notes

¹ Figures have been revised from Forestry Statistics 2003 to reflect revised data published by DTI.

Figure B.3

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 boards¹

Values have been rounded to the nearest 5 businesses.



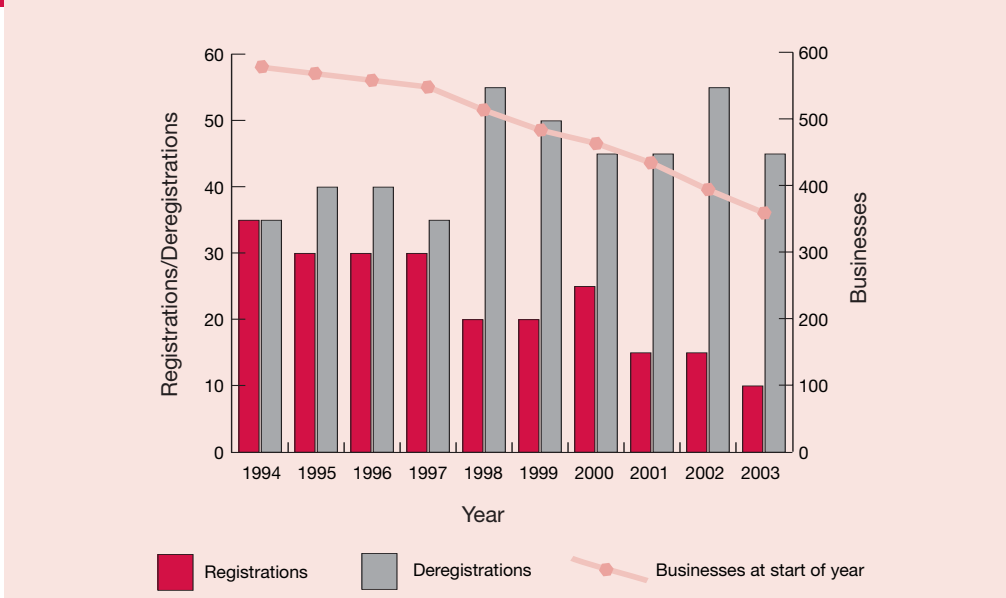
Notes

¹ Figures have been revised from Forestry Statistics 2003 to reflect revised data published by DTI.

Figure B.4

Total number of businesses and VAT registrations and deregistrations of businesses classified to SIC 211: Manufacture of pulp, paper and paperboard^{1,2}

Values have been rounded to the nearest 5 businesses.



Notes

¹ Only integrated pulp and paper mills are normally included in primary wood processing.

² Figures have been revised from Forestry Statistics 2003 to reflect revised data published by DTI.



Appendix C

TREE SPECIES IN BRITISH WOODLAND

Based on report for Forest Resources Assessment 2000

Table C.1 Tree species in British woodland

| Main species | | Other species | |
|---|---------------------------------|--------------------|---------------------------------|
| Common name | Latin name | Common name | Latin name |
| Native (indigenous) tree species occurring on forest and other wooded land | | | |
| Scots pine | <i>Pinus sylvestris</i> | Yew | <i>Taxus baccata</i> |
| Oak - sessile | <i>Quercus robur</i> | Wild cherry (gean) | <i>Prunus avium</i> |
| Oak - pedunculate | <i>Quercus petraea</i> | Bird cherry | <i>Prunus padus</i> |
| Ash | <i>Fraxinus excelsior</i> | Whitebeam | <i>Sorbus aria</i> |
| Downy birch | <i>Betula pubescens</i> | Elm | <i>Ulmus</i> spp |
| Silver birch | <i>Betula pendula</i> | Lime | <i>Tilia</i> spp |
| Beech | <i>Fagus sylvatica</i> | Field maple | <i>Acer campestre</i> |
| Rowan | <i>Sorbus aucuparia</i> | Willow | <i>Salix</i> spp |
| Holly | <i>Ilex aquifolium</i> | Aspen | <i>Populus tremula</i> |
| Hawthorn | <i>Crataegus monogyna</i> | Black poplar | <i>Populus nigra</i> |
| Common alder | <i>Alnus glutinosa</i> | Poplar | <i>Populus</i> spp |
| Hazel | <i>Corylus avellana</i> | Juniper | <i>Juniperis communis</i> |
| Elder | <i>Sambucus nigra</i> | Hornbeam | <i>Carpinus betulus</i> |
| | | Crab apple | <i>Malus sylvestris</i> |
| | | Service tree | <i>Sorbus torminalis</i> |
| | | Whitebeams, etc. | <i>Sorbus</i> spp |
| Introduced tree species on forest and other wooded land | | | |
| Sitka spruce | <i>Picea sitchensis</i> | Other pines | <i>Pinus</i> spp |
| Lodgepole pine | <i>Pinus contorta</i> | Other spruces | <i>Picea</i> spp |
| Larches | <i>Larix</i> spp | Western red cedar | <i>Thuja plicata</i> |
| Douglas fir | <i>Pseudotsuga menziesii</i> | Cypresses | <i>Chamaecyparis</i> spp |
| Sycamore | <i>Acer pseudoplatanus</i> | Grand fir | <i>Abies grandis</i> |
| Norway spruce | <i>Picea abies</i> | Noble fir | <i>Abies procera</i> |
| Corsican pine | <i>Pinus nigra var maritima</i> | Silver fir | <i>Abies alba</i> |
| Western hemlock | <i>Tsuga heterophylla</i> | Japanese cedar | <i>Cryptomeria japonica</i> |
| | | Coast redwood | <i>Sequoia sempervirens</i> |
| | | Wellingtonia | <i>Sequoiadendron giganteum</i> |
| | | Cedars | <i>Cedrus</i> spp |
| | | Monkey puzzle | <i>Araucaria araucana</i> |
| | | Other oaks | <i>Quercus</i> spp |
| | | Roble | <i>Nothofagus obliqua</i> |
| | | Raoul | <i>Nothofagus nervosa</i> |
| | | Other alders | <i>Alnus</i> spp |
| | | Filbert | <i>Corylus maxima</i> |
| | | Horse chestnut | <i>Aesculus hippocastanum</i> |
| | | Sweet chestnut | <i>Castanea sativa</i> |
| | | English walnut | <i>Juglans regia</i> |
| | | Norway maple | <i>Acer platanoides</i> |
| | | Other maples | <i>Acer</i> spp |
| | | Tree of heaven | <i>Ailanthus altissima</i> |
| | | Balsam poplars | <i>Populus</i> spp |
| | | Other willows | <i>Salix</i> spp |
| | | London plane | <i>Platanus x hispanica</i> |
| | | Peach | <i>Prunus persica</i> |
| | | Almond | <i>Prunus dulcis</i> |
| | | Other cherries | <i>Prunus</i> spp |
| | | Apple | <i>Malus domestica</i> |



Appendix D

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 <i>pollards</i>), 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 |
| FRA | Forest Resources Assessment |
| FS | Northern Ireland Forest Service (an agency of the Department for Agriculture and Rural Development) |
| 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 <i>coppice</i>) |
| 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/m ³ |
| 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 (also chipboard) | Panel material manufactured under pressure and heat from particles of wood (wood flakes, chips, shavings, sawdust) in particle form, with the addition of an adhesive |
| PAWS | Plantation on an ancient woodland site |
| 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 |

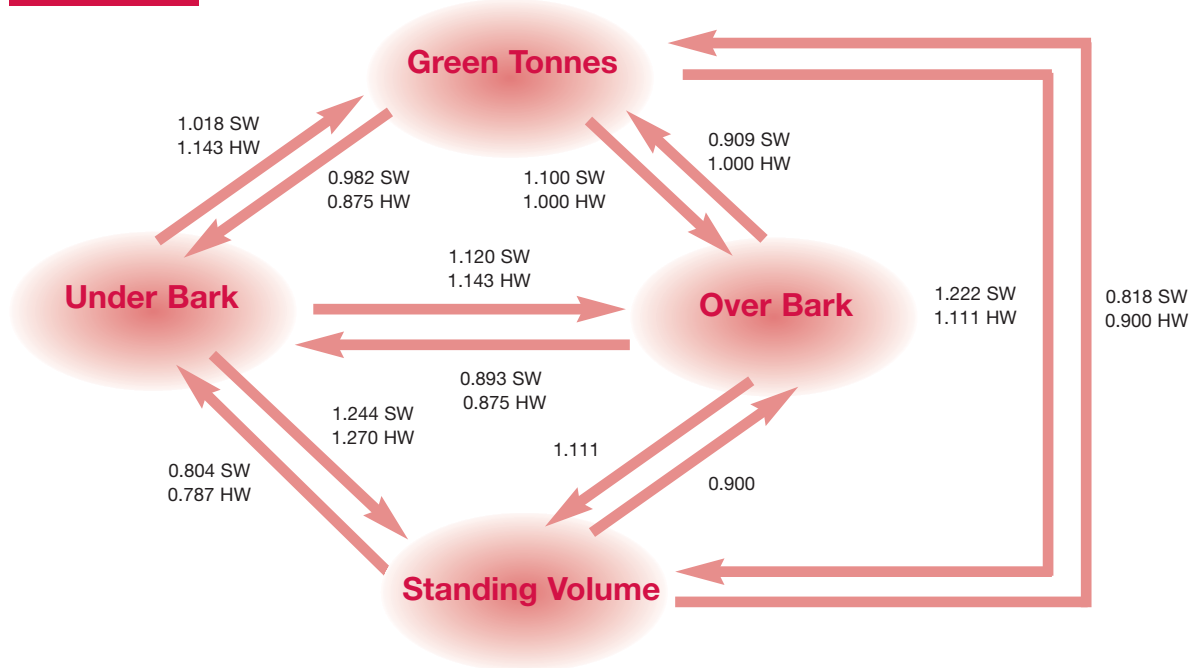
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| Sawmill products | Materials including wood chips, sawdust and bark which arise during the conversion of logs to sawn timber. Most used as inputs to other wood processing industries, or sold for other uses. Formerly called sawmill residues or co-products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



Appendix E

CONVERSION FACTORS

Figure E.1 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 in Table E.1.

Table E.1 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 | |
| Other paper and paperboard | tonnes | |
| Plywood | m ³ | 3.67 |
| Fibreboard | m ³ | 2.35 |
| Particleboard | m ³ | 1.61 |
| Veneer sheets | m ³ | 3.67 |

Notes

- ¹ The charcoal conversion factor is for volume to volume. About 7.8 m³ of wood is required to make one tonne of charcoal, but one tonne of charcoal is equal to about 6 m³ in 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.



Appendix F

FURTHER 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

References and Bibliography

Forestry Commission Economics and Statistics publications

British Timber Statistics 2003 (2004)
Forest Employment Survey 1998/9 (2001)
Forestry Facts and Figures 2004 (2004)
Forest Visitor Surveys 2002, Summary Report (2004)
Public Opinion of Forestry 2003 (2003)
UK Indicators of Sustainable Forestry (2002)
First Release: Coniferous Standing Sales Price Index (2004)
First Release: UK Wood Production and Trade (2004)
First Release: Woodland area, planting and restocking (2004)

Other Forestry Commission/Forest Service publications

FC Technical Paper 19; A Whiteman, (1996)
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)

Forest Service Annual Report 2002-2003; Forest Service, (2003)

Other publications

IPD UK Forestry Index 2004; Investment Property Databank

Protected Forest Areas in the UK, (2001), for World Wide Fund for Nature and Forestry Commission; S Pryor & G Peterken.

State of Worlds Forests 2001, Food and Agriculture Organisation of the United Nations

State of Worlds Forests 2003, Food and Agriculture Organisation of the United Nations

State of Europe's Forests 2003, The MCPFE Report on Sustainable Forest Management in Europe, MCPFE Liaison Unit Vienna and UN Economic Commission for Europe/Food and Agriculture Organisation of the United Nations.

GB Leisure Day Visits: Report of the 2002-03 GB Day Visits Survey, for a consortium of national agencies responsible for recreation and tourism; TNS Travel and Tourism.



Forestry Commission

231 Corstorphine Road
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