

## 4 Table T4 – Forest characteristics

### 4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
<b>Characteristics categories</b>	
Primary forest	Naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
Other naturally regenerated forest of introduced species ( <i>sub-category</i> )	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species ( <i>sub-category</i> )	Planted forest, where the planted/seeded trees are predominantly of introduced species.
<b>Special categories</b>	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

### 4.2 National data

#### 4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Protected Forest Areas in the UK, Pryor & Peterken 2001	M	Semi-natural	1990	As used for TBFRA 2000.
Pryor and Smith, 2002	M	Semi-natural	1990	not used (see text)
Forestry Statistics, Forestry Facts & Figures and related databases	H	Semi-natural	1990-2008	Broadleaved new planting and restocking, used for calculating and updating.
National Inventory 1995-99, Table 10 (MWS + SW) (unpublished)	M	Native species	1995-99	NIWT did not distinguish planted from naturally regenerated

## 4.2.2 Classification and definitions

National class	Definition
Semi-natural	As classified in the report Protected Forest Areas in the UK, Pryor & Peterken 2001. About half the area is Ancient Semi-Natural Woodland, continually wooded since the earliest reliable records. The rest is native woodland that is not obviously planted; i.e. appears to have arisen mainly through natural regeneration.
Scots pine	<i>Pinus sylvestris</i> , native conifer. Makes up a large proportion of the native Caledonian pinewood in Scotland (classified as UK semi-natural), but also in extensive plantations.

## 4.2.3 Original data

All figures in thousand hectares.

Semi-natural woodland and Ancient Semi-natural woodland (ASNW)

	UK	England	Scotland	Wales	N Ireland
Pryor & Peterken 2001 semi-natural	646	416	133	82	15
Pryor & Peterken 2001 ASNW	326	206	89	31	0
Pryor & Smith 2002 ASNW	285	193	65	27	N/a

UK Broadleaved New Planting and Restocking,

	NP	RS	Total
1990-2000	96	41	137
2000-2005	55	13	68
2005-2008	23	11	34

Source: databases for Forestry Statistics

## 4.3 Analysis and processing of national data

### 4.3.1 Estimation and forecasting

#### Naturally regenerated

The FRA 2010 category “naturally regenerated” largely corresponds to what was reported in FRA 2005 as “modified natural”, based on the UK category semi-natural in Pryor & Peterken 2001, for which estimates can be taken as relating approximately to 1990 (the Ancient Woodland Inventory (AWI) part was late 1980s). This gives a figure of 646,000 ha for 1990.

The later publication Pryor & Smith 2002 reported the overlap from overlaying digital maps for the Ancient Woodland Inventory and National Inventory of Woodland, reducing the total Ancient Semi-Natural Woodland (ASNW) area by 41,000 ha. However, further investigation of the discrepancies between NIWT and the ancient woodland inventories suggests that some discrepancies are due to differences in spatial registration of woods, and that some areas of ancient woodland are incorrectly omitted from the totals in Pryor & Smith (2002). In consequence, the estimates from Pryor & Peterken (2001) are now recommended for use, until better information becomes available.

The annual loss of ASNW and other semi-natural woodland has not been monitored, but relatively small areas are now thought to be lost for roads and other developments. In recent

years, this is likely to have been balanced by restoration of plantations on ancient woodland sites to ASNW. So estimate no net change since 1990.

Most of the FRA 2005 category “semi-natural” (see below) was planted. The percentage with (assisted) natural regeneration was estimated for the Planted Forests study in FRA 2005, giving the following areas (thousand hectares): 1990: 0, 2000: 2, 2005: 10. This can be extrapolated to estimate 16 (th ha) for 2010.

The criteria for classification as UK semi-natural prevent the inclusion of any areas of introduced species. The new areas (in the preceding paragraph) will also be native species, so estimate zero area for introduced species.

## **Planted**

The planted area is estimated by subtraction from the total area.

In NIWT 1995-99, native species (most broadleaves and Scots pine) made up about 48% of the forest area. The % native would have been lower in N Ireland (not covered by NIWT), but would have increased slightly from the variable NIWT date to 2000, so 48% (1,340,000 hectares) is a reasonable estimate for native species in 2000, implying 1,453,000 hectares introduced. As no introduced species were in naturally regenerated forest, allocate all to planted forest.

For 2000-2005, increase in area of native species will have consisted of most broadleaved new planting and restocking (say 62,000 out of 67,000 hectares) plus 8,000 hectares of Scots pine in Caledonian pinewood, and negligible losses, so estimate 70,000 hectare increase to 1,410,000 hectares. By subtraction from total woodland, this leaves 1,435,000 hectares introduced.

For 2005-2010, increase in area of native species will have consisted of most broadleaved new planting and restocking (say 55,000 out of 60,000 hectares) plus 5,000 hectares of Scots pine in Caledonian pinewood, and negligible losses, so estimate 60,000 hectare increase to 1,470,000 hectares. By subtraction from total woodland, this leaves 1,411,000 hectares introduced.

For 1990-2000, increase in area of native species will have consisted of most broadleaved new planting and restocking (say 125,000 out of 135,000 hectares) plus 16,000 hectares of Scots pine in Caledonian pinewood, and perhaps a few thousand hectares of losses, so estimate 135,000 hectare increase over the decade. Subtracting this from the 2000 estimate of 1,340,000 hectares gives 1,205,000 hectares native, and by subtraction from total woodland gives 1,406,000 hectares introduced.

### **4.3.2 Reclassification into FRA 2010 categories**

Covered in section above.

#### 4.4 Data for Table T4

Table 4a

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	0	0	0	0
Other naturally regenerated forest	646	648	656	662
...of which of introduced species	0	0	0	0
Planted forest	1965	2145	2189	2219
...of which of introduced species	1406	1453	1435	1411
<b>TOTAL</b>	<b>2611</b>	<b>2793</b>	<b>2845</b>	<b>2881</b>

Table 4b

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	0	0	0	0
Bamboo (Forest and OWL)	0	0	0	0

#### 4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		
Other naturally regenerating forest		
Planted forest		
Rubber plantations		
Mangroves		
Bamboo		

#### Other general comments to the table

In the UK, native species include most broadleaves and Scots pine. Apart from yew and juniper (neither of which cover significant areas), all other conifers have been introduced.