

# Forestry Statistics 2016

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



## **Chapter 9: International Forestry**

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# 9 International Forestry

## Introduction

This chapter contains information about world forestry, presenting global figures by region alongside data for the UK and the EU. Topics covered include woodland area, carbon stocks, wood removals, production and apparent consumption of wood products and international trade in forest products.

The data are produced by the United Nations Food and Agriculture Organisation (FAO). Further information on the data sources and methodology used to compile the figures is provided in the Sources chapter.

All of the statistics presented in this chapter have been previously released by the FAO. For further details on revisions, see the International Forestry section of the Sources chapter.

Data for the European Union (EU) relate to all 28 current EU members for all of the years shown.

A copy of all International Forestry tables is available to download from the [Tables for Download page](#).

## Key findings

The main findings are:

- At around 13% forest cover in 2015, the UK is one of the least densely forested countries in Europe. This compares with 38% for the EU as a whole and 31% worldwide.
- The global forest area reduced by around 3.3 million hectares (0.1%) per year between 2010 and 2015.
- Carbon stocks in forest living biomass have increased in both Europe and North & Central America between 2010 and 2015, but have decreased at a global level.
- A total of 3.7 billion m<sup>3</sup> underbark of wood was removed from global forests in 2014, of which around one half (50%) was for use as woodfuel and the remainder was industrial roundwood (for use by wood processors).
- Global production of wood products in 2014 totalled 439 million m<sup>3</sup> of sawnwood, 388 million m<sup>3</sup> of wood-based panels and 400 million tonnes of paper & paperboard.
- Europe consumed around one quarter (24%) of all sawnwood, around two fifths (20%) of the world's wood-based panels and around one quarter (23%) of all paper and paperboard in 2014.
- There has been a large increase in the demand for and production of sawnwood and wood-based panels in Asia between 2010 and 2014.
- The UK was the third largest net importer (imports less exports) of forest products in 2014, behind China and Japan.

## 9.1 Forest cover: international comparisons

The FAO Global Forest Resources Assessment (FRA) is a collation of forest data undertaken by the United Nations Food and Agriculture Organisation (FAO) at the global level every five years.

At around 13% forest cover in 2015, the UK is one of the least densely forested countries in Europe (Table 9.1, Figure 9.1). This compares with 38% for the EU as a whole and 31% worldwide.

**Table 9.1 Forest cover: international comparisons, 2015**

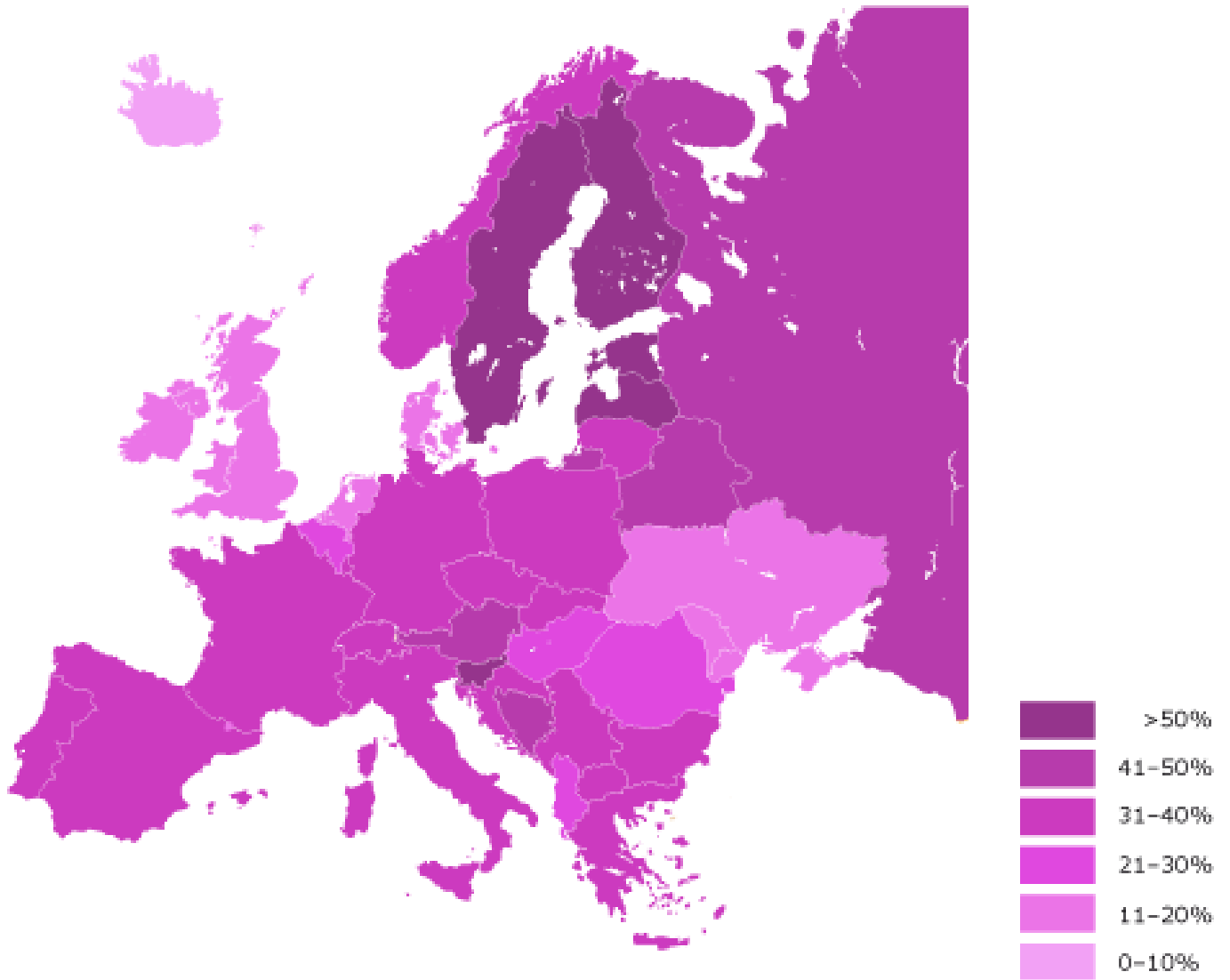
Country	Forest area (million ha)	Total land area (million ha)	Forest as % of land area
<b>Europe</b>			
United Kingdom	3	24	13
Finland	22	30	73
France	17	55	31
Germany	11	35	33
Italy	9	29	32
Spain	18	50	37
Sweden	28	41	68
Other EU	52	159	32
<b>Total EU-28<sup>1</sup></b>	<b>161</b>	<b>424</b>	<b>38</b>
Russian Federation	815	1 638	50
<b>Total Europe</b>	<b>1 015</b>	<b>2 214</b>	<b>46</b>
Africa	624	2 987	21
Asia	593	3 118	19
North & Central America	751	2 134	35
Oceania	174	850	20
South America	842	1 747	48
<b>World</b>	<b>3 999</b>	<b>13 049</b>	<b>31</b>

Source: FAO Global Forest Resources Assessment 2015.

Notes:

1. Cyprus is included in EU-28 total but is part of FAO's Asia region.  
These figures are outside the scope of National Statistics

**Figure 9.1 Forest cover: international comparisons, 2015**



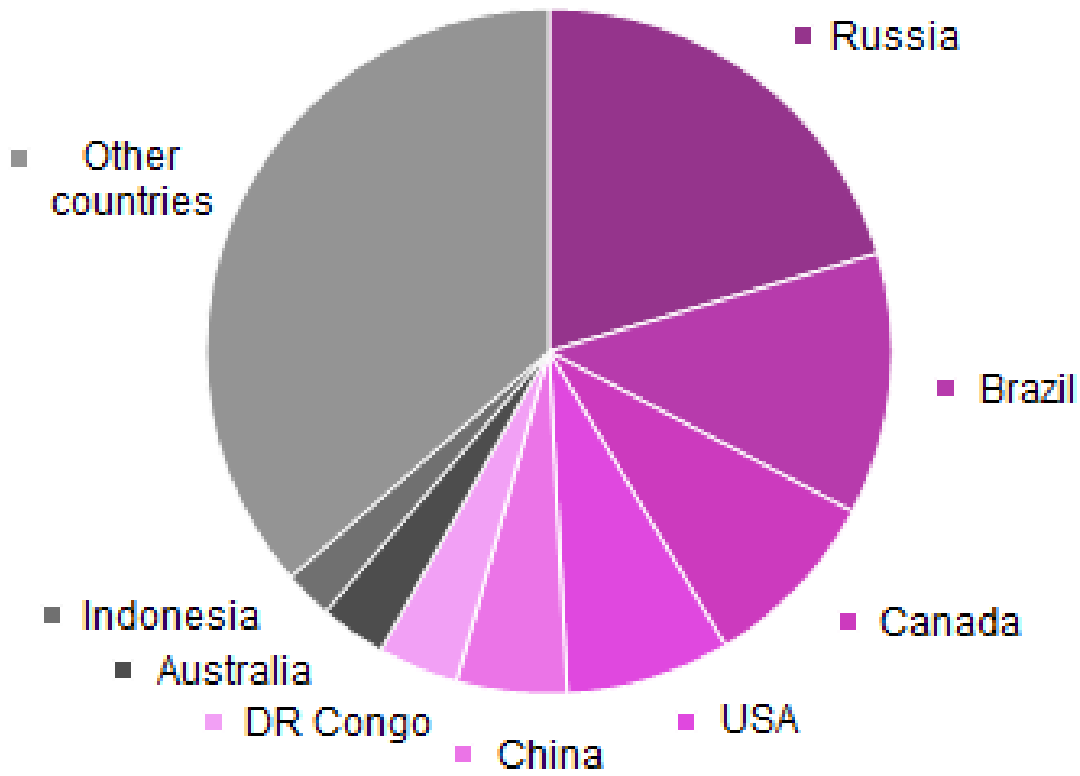
Source: FAO.

*These figures are outside the scope of National Statistics*

## 9.2 Forest area by country

One fifth of the world's forest area is located in the Russian Federation, with a further 12% in Brazil (Figure 9.2).

**Figure 9.2 Forest area by country, 2015**



*Source: FAO Global Forest Resources Assessment 2015.*

*These figures are outside the scope of National Statistics*

### 9.3 Annual changes in forest area

The global forest area reduced by around 7.3 million hectares (0.2%) per year between 1990 and 2000, by around 4.0 million hectares (0.1%) per year between 2000 and 2010 and by around 3.3 million hectares (0.1%) per year between 2010 and 2015 (Table 9.2).

The forest area has reduced in most regions since 1990, except for Europe (where the area increased in each time period) and Asia (where the area reduced between 1990 and 2000 but has increased by more between 2000 and 2015).

**Table 9.2 Annual changes in forest area by region, 1990-2015**

Region	1990-2000		2000-2010		2010-2015	
	(thousand ha)	(%)	(thousand ha)	(%)	(thousand ha)	(%)
<b>Europe</b>						
UK	18	0.6	11	0.3	17	0.5
EU-28 <sup>1</sup>	681	0.5	450	0.3	369	0.2
<b>Total Europe</b>	<b>803</b>	<b>0.1</b>	<b>1 127</b>	<b>0.1</b>	<b>382</b>	<b>0.0</b>
Africa	-3 537	-0.5	-3 209	-0.5	-2 836	-0.4
Asia	-221	0.0	2 349	0.4	791	0.1
North and Central America	-394	-0.1	172	0.0	75	0.0
Oceania	82	0.0	-564	-0.3	304	0.2
South America	-4 000	-0.4	-3 868	-0.4	-2 024	-0.2
<b>World</b>	<b>-7 267</b>	<b>-0.2</b>	<b>-3 993</b>	<b>-0.1</b>	<b>-3 308</b>	<b>-0.1</b>

Source: FAO Global Forest Resources Assessment 2015.

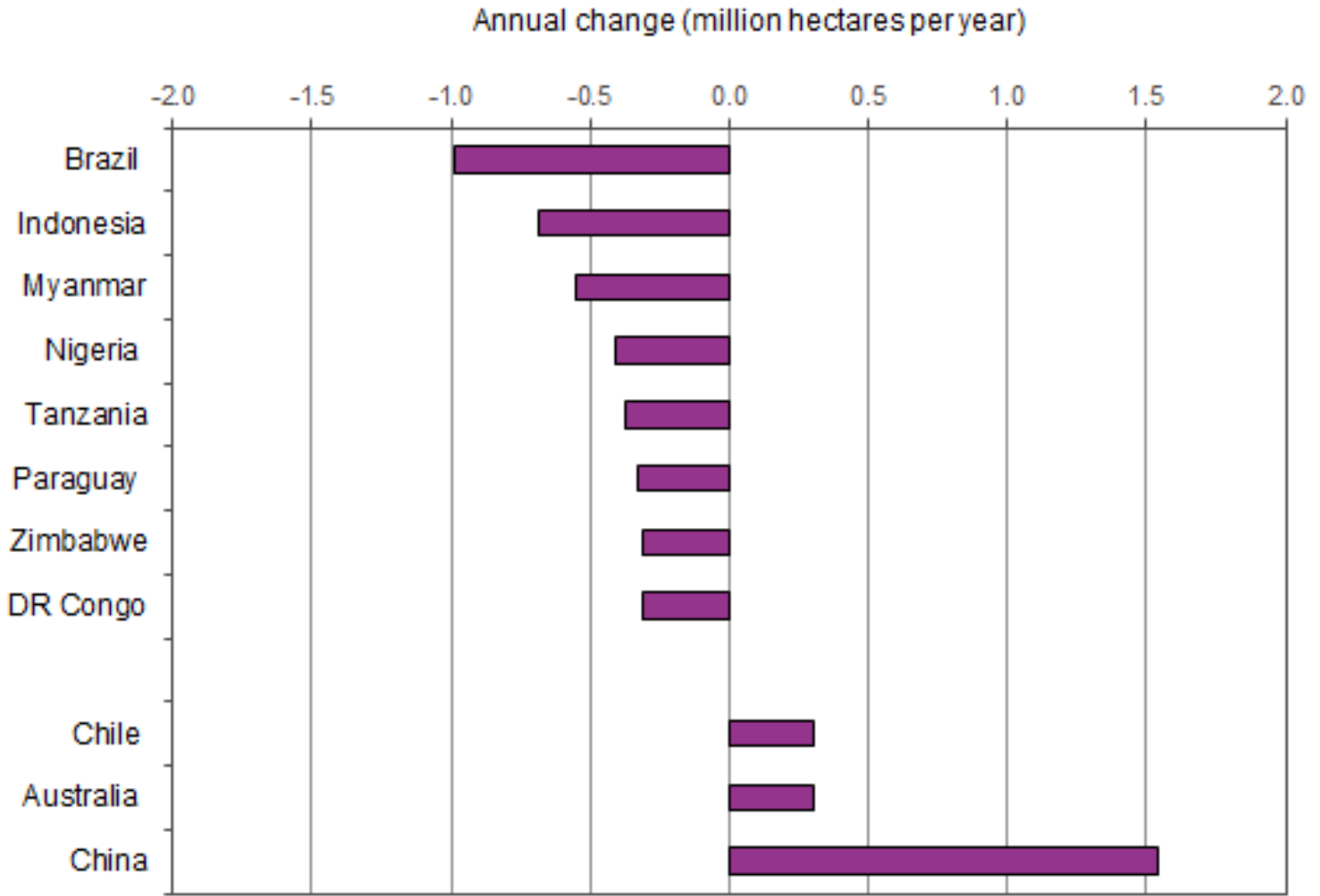
Notes:

1. Cyprus is included in EU-28 total but is part of FAO's Asia region.

These figures are outside the scope of National Statistics

Between 2010 and 2015, the largest decrease in forest area was in Brazil (1.0 million hectares per year on average) and the largest increase was in China (1.5 million hectares per year on average) (Figure 9.3).

**Figure 9.3 Countries with largest changes in forest area, 2010-2015**



Source: FAO Global Forest Resources Assessment 2015.

Notes:

1. Countries with changes of at least 0.3 million hectares per year only.

These figures are outside the scope of National Statistics



## 9.4 Carbon stocks in forest biomass

Carbon stocks in forest living biomass have increased in Europe and North & Central America between 2010 and 2015, but have decreased at a global level, reflecting continuing trends since 1990 (Table 9.3).

The overall decrease has mainly been driven by declines in South America and Africa, where forest areas have decreased. Carbon stocks in biomass also declined slightly in Asia, where carbon sequestered in new plantations is not yet able to balance out carbon losses from areas of deforestation.

**Table 9.3 Carbon stocks in forest living biomass by region, 1990-2015**

<b>Region</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>
Europe	41.4	42.5	43.2	44.4	45.5
Africa	66.5	63.5	62.1	60.8	59.7
Asia	38.1	37.7	37.2	36.8	36.3
North and Central America	33.9	34.9	35.3	35.6	35.9
Oceania	16.1	15.9	15.9	15.9	15.7
South America	111.5	107.8	105.5	104.0	103.1
<b>World</b>	<b>307.6</b>	<b>302.3</b>	<b>299.2</b>	<b>297.6</b>	<b>296.2</b>

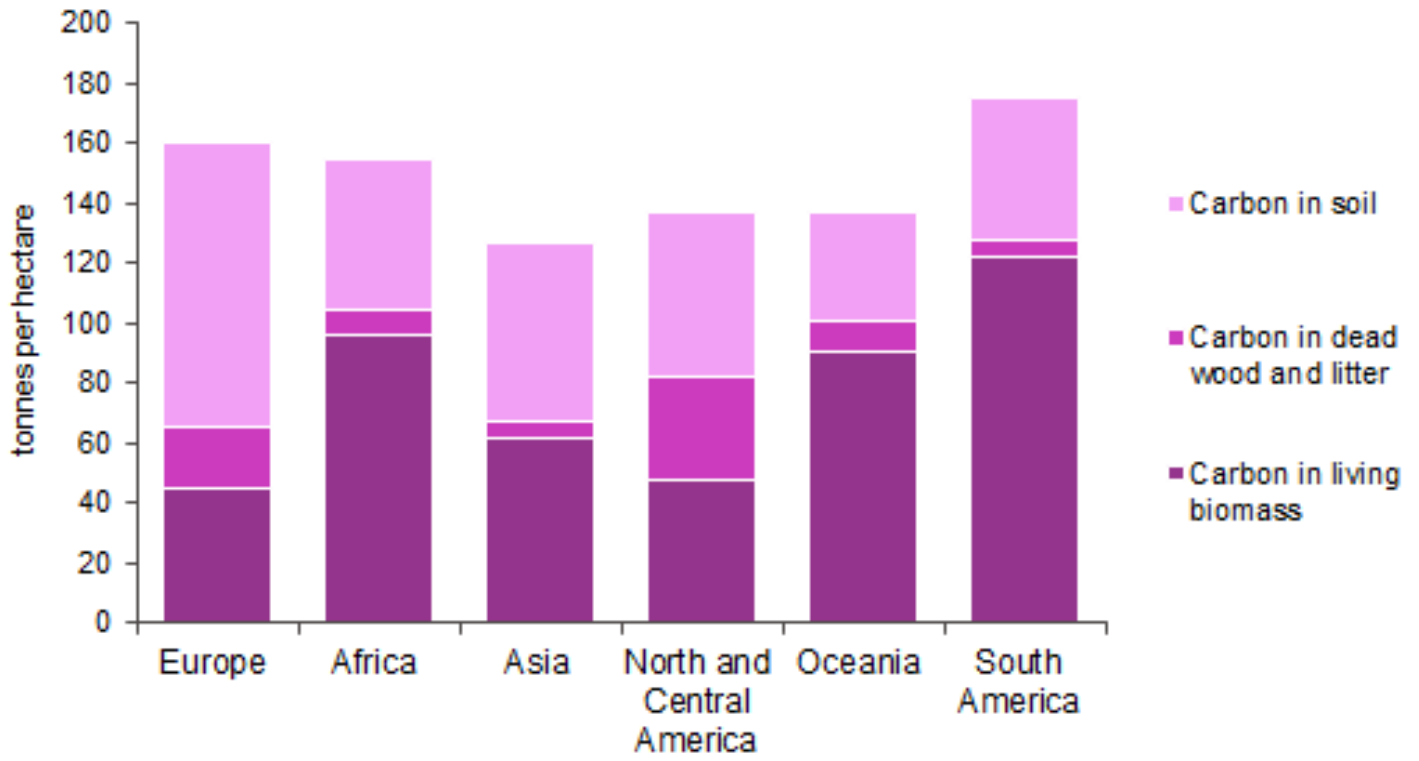
Source: FAO Global Forest Resources Assessment 2015.

Notes:

1. A giga tonne is a thousand million tonnes ( $10^9$  tonnes).

*These figures are outside the scope of National Statistics*

**Figure 9.4 Carbon stock per hectare in forest biomass by region, 2015**



Source: FAO Global Forest Resources Assessment 2015.  
These figures are outside the scope of National Statistics

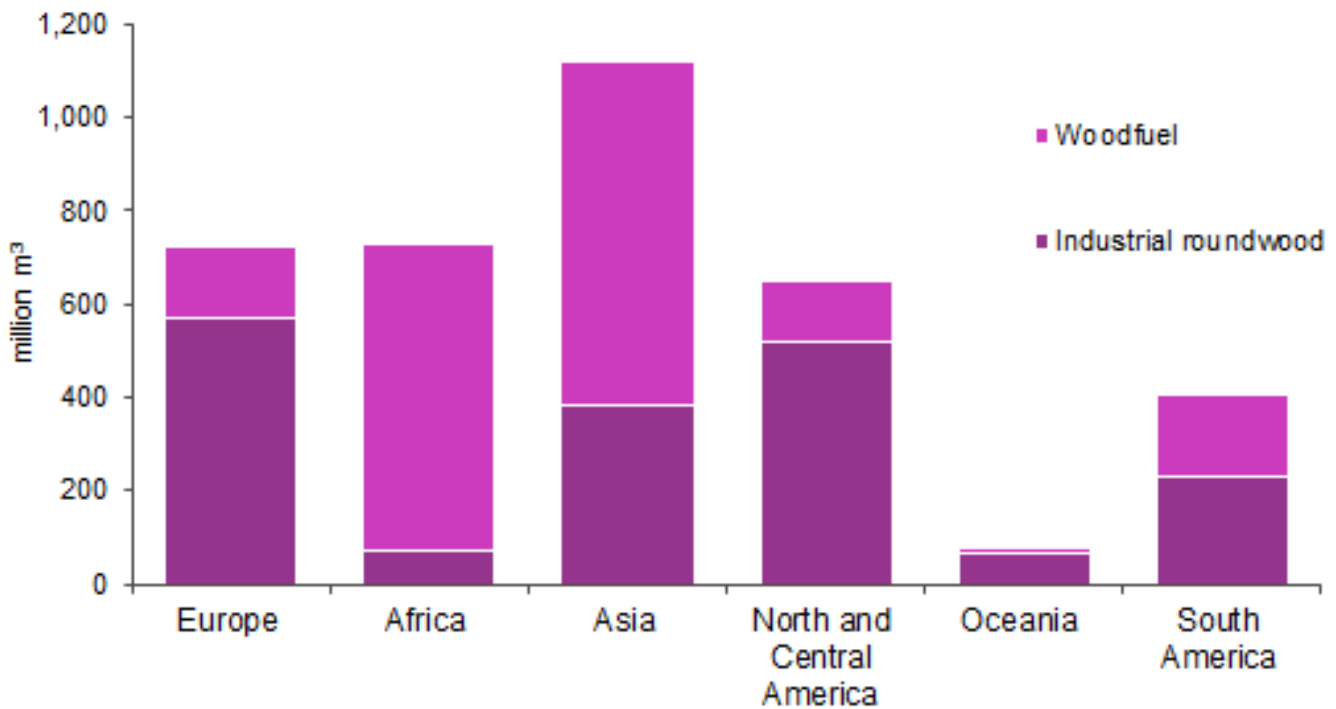
## 9.5 Wood removals

A total of 3.7 billion m<sup>3</sup> underbark of wood was removed from global forests in 2014, of which around one half (50%) was for use as woodfuel and the remainder was industrial roundwood (for use by wood processors) (Table 9.4).

North & Central America and Europe together accounted for around three fifths (59%) of all industrial roundwood removals in 2014. Globally, removals of industrial roundwood increased by 8% between 2010 and 2014, resulting from increases in all regions.

Three quarters of woodfuel removals in 2014 took place in Asia and Africa. Globally, removals of woodfuel increased by 2% between 2010 and 2014.

**Figure 9.5 Wood removals by region, 2014**



Source: FAO.

*These figures are outside the scope of National Statistics*

Chapter 9: International Forestry  
Wood Removals

**Table 9.4 Wood removals by region, 1990-2014**

Region	1990	1995	2000	2005	2010	2014
million m <sup>3</sup> underbark						
<b>Industrial roundwood</b>						
<b>Europe</b>						
UK	6	7	8	8	8	9
EU-28 <sup>1</sup>	317	294	342	371	339	347
<b>Total Europe</b>	<b>517</b>	<b>405</b>	<b>519</b>	<b>569</b>	<b>532</b>	<b>572</b>
Africa	61	67	70	74	71	72
Asia	268	276	269	282	361	382
North and Central America	595	603	632	635	485	517
Oceania	34	41	47	50	57	64
South America	110	135	147	176	198	231
<b>World</b>	<b>1 585</b>	<b>1 526</b>	<b>1 684</b>	<b>1 786</b>	<b>1 703</b>	<b>1 837</b>
<b>Woodfuel</b>						
<b>Europe</b>						
UK	0	0	0	0	1	2
EU-28 <sup>1</sup>	68	67	70	76	89	101
<b>Total Europe</b>	<b>138</b>	<b>107</b>	<b>94</b>	<b>107</b>	<b>127</b>	<b>150</b>
Africa	445	513	542	589	631	657
Asia	897	849	808	792	766	737
North and Central America	162	145	129	130	129	133
Oceania	9	11	13	11	11	11
South America	162	173	185	169	162	177
<b>World</b>	<b>1 814</b>	<b>1 798</b>	<b>1 771</b>	<b>1 799</b>	<b>1 825</b>	<b>1 864</b>
<b>Total roundwood</b>						
<b>Europe</b>						
UK	6	8	8	9	10	11
EU-28 <sup>1</sup>	385	361	411	448	428	448
<b>Total Europe</b>	<b>655</b>	<b>512</b>	<b>612</b>	<b>676</b>	<b>659</b>	<b>722</b>
Africa	506	580	613	663	702	728
Asia	1 166	1 125	1 076	1 074	1 127	1 119
North and Central America	757	748	761	765	613	649
Oceania	43	51	60	61	68	74
South America	272	308	332	345	359	408
<b>World</b>	<b>3 399</b>	<b>3 325</b>	<b>3 455</b>	<b>3 585</b>	<b>3 528</b>	<b>3 700</b>

Source: FAO.

Notes: 1. Cyprus is included in EU-28 total but is part of FAO's Asia region.  
These figures are outside the scope of National Statistics

## 9.6 Production of wood products

Global production of wood products in 2014 totalled 439 million m<sup>3</sup> of sawnwood, 388 million m<sup>3</sup> of woodbased panels and 400 million tonnes of paper & paperboard (Table 9.5).

Europe produced around one third (34%) of all sawnwood in 2014 (mainly in EU countries), with around one quarter (28%) produced in North & Central America and a further quarter (27%) in Asia. Overall, sawnwood production increased by 17% between 2010 and 2014, mainly driven by a 39% increase in Asia.

Wood-based panels were more commonly produced in Asia, accounting for around three fifths (61%) of global production in 2014. Around one-fifth (20%) were produced in Europe (mainly EU countries) and 12% in North & Central America. At a global level, wood-based panel production increased by 34% between 2010 and 2014, mainly driven by a 59% increase in Asia.

Asia also accounted for almost one half (46%) of paper and paperboard production in 2014, with around one quarter (26%) in Europe and a further 22% in North & Central America. Overall, paper and paperboard production increased by 2% between 2010 and 2014.

Chapter 9: International Forestry  
Production of Wood Products

**Table 9.5 Production of wood products by region, 1990-2014**

Region	1990	1995	2000	2005	2010	2014
<b>Sawnwood (million m<sup>3</sup>)</b>						
<b>Europe</b>						
UK	2	2	3	3	3	4
EU-28 <sup>1</sup>	82	83	101	109	101	104
<b>Total Europe</b>	<b>149</b>	<b>118</b>	<b>129</b>	<b>144</b>	<b>139</b>	<b>147</b>
Africa	8	8	8	8	9	10
Asia	105	96	61	78	86	120
North and Central America	129	134	146	162	102	122
Oceania	6	7	8	9	9	9
South America	22	27	32	37	30	31
<b>World</b>	<b>419</b>	<b>391</b>	<b>385</b>	<b>438</b>	<b>376</b>	<b>439</b>
<b>Wood-based panels (million m<sup>3</sup>)</b>						
<b>Europe</b>						
UK	2	3	3	3	3	3
EU-28 <sup>1</sup>	36	40	53	63	58	59
<b>Total Europe</b>	<b>48</b>	<b>46</b>	<b>61</b>	<b>75</b>	<b>73</b>	<b>78</b>
Africa	2	2	2	2	2	3
Asia	27	44	49	99	149	237
North and Central America	44	47	62	64	44	48
Oceania	2	2	3	4	4	4
South America	4	6	9	15	17	18
<b>World</b>	<b>127</b>	<b>147</b>	<b>186</b>	<b>260</b>	<b>288</b>	<b>388</b>
<b>Paper &amp; paperboard (million tonnes)</b>						
<b>Europe</b>						
UK	5	6	7	6	4	4
EU-28 <sup>1</sup>	63	74	90	98	95	92
<b>Total Europe</b>	<b>74</b>	<b>82</b>	<b>100</b>	<b>111</b>	<b>106</b>	<b>105</b>
Africa	3	3	4	4	4	4
Asia	57	77	95	124	170	184
North and Central America	92	108	111	108	94	89
Oceania	3	3	4	4	4	4
South America	8	9	11	13	15	15
<b>World</b>	<b>235</b>	<b>282</b>	<b>325</b>	<b>365</b>	<b>392</b>	<b>400</b>

Source: FAO.

Notes:

1. Cyprus is included in EU-28 total but is part of FAO's Asia region.  
These figures are outside the scope of National Statistics

## 9.7 Apparent consumption of wood products

Apparent consumption (defined as production + imports - exports) of wood products around the world totalled 435 million m<sup>3</sup> sawnwood, 383 million m<sup>3</sup> wood-based panels and 398 million tonnes of paper and paperboard in 2014 (Table 9.6).

Almost two fifths (38%) of all sawnwood in 2014 was consumed in Asia and around one quarter each in Europe (24%) and in North & Central America (26%). Reflecting the increased production of sawnwood in recent years (see Table 9.5), apparent consumption of sawnwood increased by 17% overall between 2010 and 2014. This was driven by a 43% increase in apparent consumption in Asia; there was a 4% decrease in Europe over the same period.

Asia consumed around three fifths (60%) of the world's wood-based panels in 2014, around one-fifth (20%) was consumed in Europe and 14% in North & Central America. Apparent consumption of wood-based panels worldwide increased by 34% between 2010 and 2014, largely resulting from increased demand in Asia.

Almost one half (48%) of all paper and paperboard in 2014 was consumed in Asia, around one quarter (23%) in Europe and a further one fifth (22%) in North & Central America. At a global level, apparent consumption of paper and paperboard increased by 2% between 2010 and 2014.

Chapter 9: International Forestry  
Apparent Consumption of Wood Products

**Table 9.6 Apparent consumption of wood products by region, 1990-2014**

Region	1990	1995	2000	2005	2010	2014
<b>Sawnwood (million m<sup>3</sup>)</b>						
<b>Europe</b>						
UK	13	8	10	11	9	10
EU-28 <sup>1</sup>	96	80	100	103	90	84
<b>Total Europe</b>	<b>158</b>	<b>109</b>	<b>121</b>	<b>121</b>	<b>110</b>	<b>106</b>
Africa	10	12	10	13	17	17
Asia	112	112	77	97	116	166
North and Central America	119	126	143	166	95	112
Oceania	6	7	8	8	8	8
South America	20	24	28	31	27	26
<b>World</b>	<b>426</b>	<b>390</b>	<b>387</b>	<b>436</b>	<b>372</b>	<b>435</b>
<b>Wood-based panels (million m<sup>3</sup>)</b>						
<b>Europe</b>						
UK	5	5	6	6	6	6
EU-28 <sup>1</sup>	40	41	53	60	56	55
<b>Total Europe</b>	<b>52</b>	<b>47</b>	<b>59</b>	<b>71</b>	<b>69</b>	<b>75</b>
Africa	1	2	2	3	4	5
Asia	25	46	54	99	146	231
North and Central America	44	47	65	73	49	52
Oceania	2	2	3	3	3	3
South America	3	4	6	9	14	15
<b>World</b>	<b>127</b>	<b>147</b>	<b>189</b>	<b>259</b>	<b>285</b>	<b>383</b>
<b>Paper &amp; paperboard (million tonnes)</b>						
<b>Europe</b>						
UK	9	11	12	13	11	9
EU-28 <sup>1</sup>	62	68	84	87	85	74
<b>Total Europe</b>	<b>71</b>	<b>73</b>	<b>90</b>	<b>98</b>	<b>95</b>	<b>92</b>
Africa	4	4	5	6	7	8
Asia	62	85	103	134	178	190
North and Central America	88	101	110	107	91	86
Oceania	3	4	5	5	5	4
South America	8	10	12	14	16	17
<b>World</b>	<b>236</b>	<b>277</b>	<b>325</b>	<b>364</b>	<b>391</b>	<b>398</b>

Source: FAO.

Notes:

1. Cyprus is included in EU-28 total but is part of FAO's Asia region.  
These figures are outside the scope of National Statistics

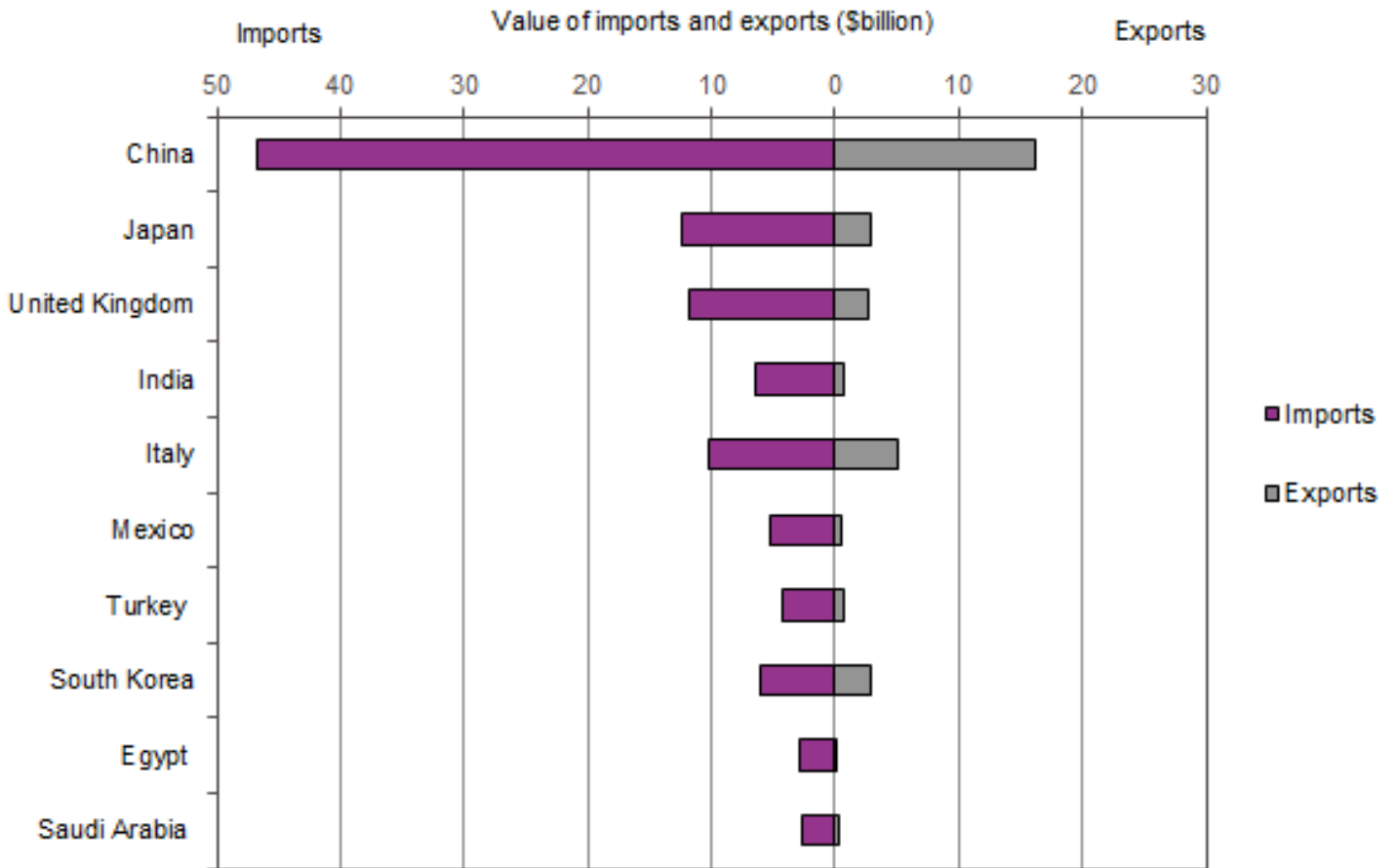


## 9.8 World trade in forest products

Figures 9.6 and 9.7 show the largest net importers and exporters (by value) of forest products in 2014. This covers trade in roundwood, sawnwood, wood-based panels, wood pulp and paper and paperboard. Values are expressed in US dollars.

The UK was the third largest net importer (imports less exports) of forest products in 2014, with net imports of \$9.0 billion (Figure 9.6). The largest net importers in 2014 were China (\$30.6 billion) and Japan (\$9.6 billion).

**Figure 9.6 Largest net importers of forest products, 2014**



Source: FAO

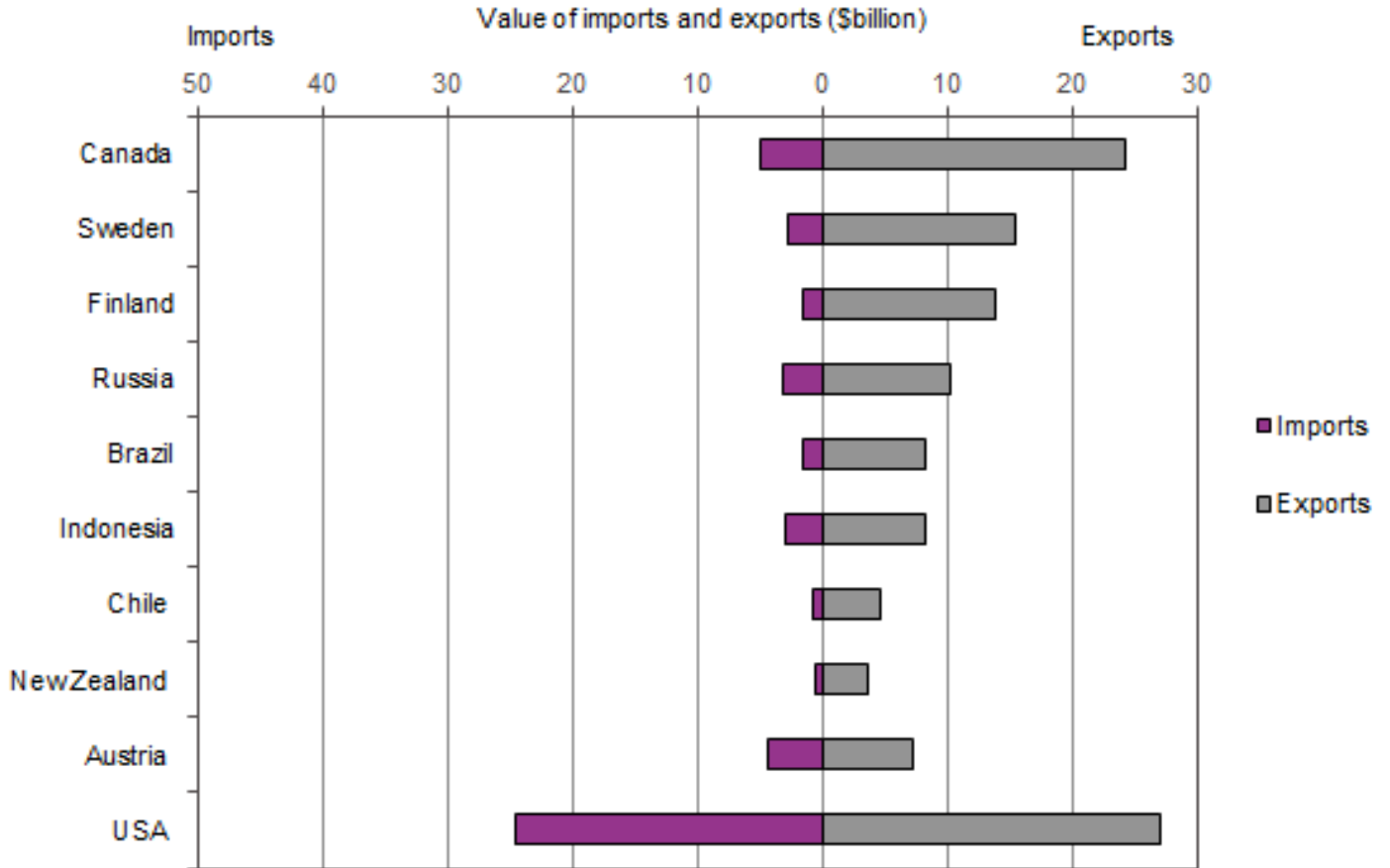
Notes:

1. Excludes trade in secondary wood products.

These figures are outside the scope of National Statistics

The largest net exporters (exports less imports) of forest products in 2014 were Canada (with net exports valued at \$19.3 billion), Sweden (\$12.7 billion) and Finland (\$12.4 billion) (Figure 9.7).

**Figure 9.7 Largest net exporters of forest products, 2014**



Source: FAO

Notes:

1. Excludes trade in secondary wood products.

These figures are outside the scope of National Statistics

## Sources: International Forestry

### Introduction

The statistics presented in the International Forestry chapter of this release cover:

- woodland area;
- carbon stocks;
- wood removals;
- production and apparent consumption of wood products; and
- trade in forest products.

### Data sources and methodology

International data on forest area and carbon stocks are obtained from the Global Forest Resources Assessment (FRA) 2015 ([www.fao.org/forest-resources-assessment/en/](http://www.fao.org/forest-resources-assessment/en/)), compiled by the United Nations Food and Agriculture Organisation (FAO). The information in Table 9.1 uses forest area from FRA 2015, excluding "other wooded land"; for the UK, this is very similar to the definition of "woodland" used in other tables.

International data on production, imports and exports are obtained from the FAO. Data are collected via the Joint Forest Sector Questionnaire for FAO and other international organisations and published on the FAOSTAT database (<http://faostat3.fao.org/>). Data on apparent consumption is derived as production plus imports less exports.

Data for the European Union (EU) relate to the countries that were EU members at the start of the latest year for which data are available. As a result, the data presented for the EU on wood production and trade includes Croatia (a member of the EU since July 2013) for the first time in this release.

### Quality

The UK data on forest area and carbon stocks are as submitted by the Forestry Commission to FAO in Spring 2014. More recent estimates of UK woodland area are provided in the Chapter on Woodland Area and Planting. A copy of the full UK return for the Forest Resources Assessment is available at [www.forestry.gov.uk/forestry/inf-d-7aqfxg](http://www.forestry.gov.uk/forestry/inf-d-7aqfxg).

The UK data on production, imports and exports are as submitted by the Forestry Commission to Eurostat in September 2015. More recent UK estimates are provided in the Chapters on UK-grown Timber and Trade. Copies of all UK returns for the Joint Forest Sector Questionnaire are available at [www.forestry.gov.uk/forestry/inf-d-7aqhzh](http://www.forestry.gov.uk/forestry/inf-d-7aqhzh).

## Revisions

International statistics compiled from FRA are subject to revision every five years, when a new collection is undertaken.

International statistics compiled from FAOSTAT may be subject to revision after publication if revisions are made to the data produced by individual countries.

Revisions to historical data have been made in the FAOSTAT database since the publication of "Forestry Statistics 2015" (Tables 9.4 to 9.6). The largest revisions resulted in an increase in industrial roundwood removals in the North and Central America region in 2010 in Table 9.4.

The Forestry Commission's revisions policy sets out how revisions and errors to these statistics are dealt with, and can be found at:

[www.forestry.gov.uk/pdf/FCrevisions.pdf/\\$FILE/FCrevisions.pdf](http://www.forestry.gov.uk/pdf/FCrevisions.pdf/$FILE/FCrevisions.pdf).

## Further information

Statistics on international forestry are reported here at a regional level. Further data (including figures for individual countries) are also available from the original sources (see above).

Statistics on forest resources are also collected every 4 years at a European level by Forest Europe. The State of Europe's Forests 2015 was released in October 2015 and is available at [www.foresteuropa.org/](http://www.foresteuropa.org/).

The United Nations Economic Commission for Europe (UNECE) Committee on Forests and the Forest Industry (previously the UNECE Timber Committee) also collects, on an annual basis, estimates for the current year and projections for the following year of wood production, imports and exports. Results are available on the UNECE website ([www.unece.org/forests/fpm/timbercommittee.html](http://www.unece.org/forests/fpm/timbercommittee.html)). Copies of UK returns for the UNECE Timber Forecast Questionnaire are available at [www.forestry.gov.uk/forestry/inf-d-7aqjql](http://www.forestry.gov.uk/forestry/inf-d-7aqjql).

## Release schedule

For information on the release schedules of statistics produced by others, see relevant websites (above).

International data on wood production and trade in 2015 will be released on 28 September 2017 in "Forestry Statistics 2017" and "Forestry Facts & Figures 2017".