

NFI provisional estimates for woodland in South Scotland Conservancy

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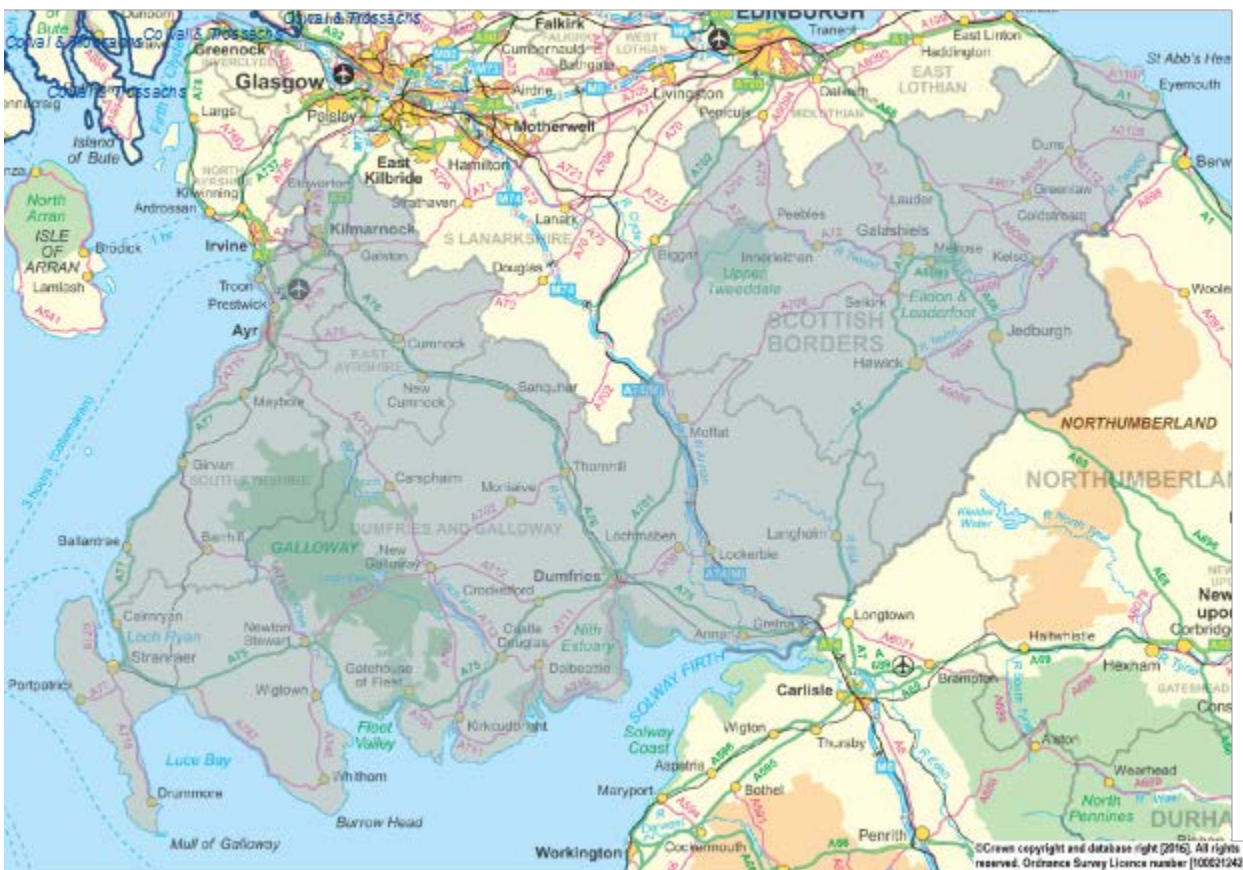
Website: www.forestry.gov.uk/inventory
www.forestry.gov.uk/forecast

Summary

This report provides a detailed picture of stocked area of woodland, the standing volume of timber and associated biomass and carbon stock for South Scotland Conservancy. These estimates are a subset of those published as part of the 2012 growing stock information presented in the National Forest Inventory (NFI) *50-year forecasts of softwood timber availability (2014)* and *50-year forecast of hardwood timber availability (2014)*. NFI reports are published at www.forestry.gov.uk/inventory.

In addition, the report provides forecasts of timber availability, standing volume and increment for softwoods and hardwoods arising from the stocked area and standing volume. Forecasts are based on the 'headline' harvesting scenario described in the 50-year forecast NFI reports.

The estimates provided in this report are provisional in nature.



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Approach

The approach taken in the derivation of these results and to be used in their interpretation is described in the full suite of forecast reports which can be found at www.forestry.gov.uk/forecast. Refer to the *Standing timber volume in coniferous trees in Britain* (2012) and the *NFI preliminary estimates of quantities of broadleaved species in British Woodlands with special focus on ash* (2012) reports for a description of the underlying methodologies and interpretation, and also for the Scotland and GB context. Refer to the *NFI forecasts methodology overview* (2012) report for a detailed description and discussion of forecasting future availability of timber from NFI field survey data and from information in the Forestry Commission's sub-compartment database (SCDB). The wider context of forecasts of timber production from woodland in Great Britain and its constituent countries under a range of harvesting scenarios can be found in the *50-year forecast of softwood timber availability* (2014) and the *50-year forecast of hardwood timber availability* (2104).

The estimates reported here are based upon field samples assessed between October 2009 and August 2013, the results of which have been subjected to rigorous data quality assurance procedures.

Results

The results presented in this report are estimates of standing volumes and stocked areas at 31 March 2012, and 50-year forecasts of softwood and hardwood availability under the 'headline' harvesting scenario for South Scotland Conservancy. The data sources used for the compilation of these estimates are the same as described in the National Forest Inventory reports *Standing timber volume for coniferous trees in Britain* (2012), the *50-year forecast of softwood availability* (2014) and the *50-year forecast of hardwood availability* (2014). Estimates for the Forestry Commission (FC) estate are derived from the FC's sub-compartment database, while those for the private sector (i.e. non-FC) estate are derived from information collected in the NFI field survey. A fuller description of these data sources and how they are used in the production of estimates, including sampling standard errors attached to the private sector estimates, is provided in the earlier documents.

Results are provided for stocked area at 31 March 2012 (**Figure 1** and **Tables 1-3**), felled area (**Table 4**), standing volume at 31 March 2012 (**Figure 2** and **Tables 5-7**), biomass and carbon stocks at 31 March 2012 (**Tables 8-9**), evidence of thinning in Private sector stands from the NFI field survey (**Figure 3**) and the "headline" 50-year forecast (**Figures 4-8** and **Tables 10-12**).

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The values in the tables have been independently rounded, so may not add to the totals shown. In some breakdowns of Private sector estimates, the estimates in the body of the table may not sum to the quoted total because each individual value, including the total, has been independently generated by the estimation procedure used for results from the NFI sample survey. Sampling standard errors (SE) attached to Private sector estimates are expressed in relative terms (%) to the right of the relevant estimate.

Caution needs to be applied in the interpretation of estimates with high relative standard errors. Such estimates cannot be relied upon to provide a value close to the actual value in the population reported on, and should be regarded as indicative values of the general level of the actual population value. Estimates and their standard errors with relative standard errors exceeding 25% are shown in amber in the tables as an indication that these estimates need to be treated with such caution. More precise estimates of these statistics would require further samples focused on the particular population of interest.

Where the standard error is high this indicates that the estimate should be interpreted with a degree of caution. Any estimate with a relatively large standard error is shown in **amber** in the tables.

These standard errors depend on the combination of a number of factors but broadly:

- The more woodland that is within the area of interest the more samples that will have been selected, generally leading to lower standard errors
- Increasing the number of categories and sub-categories used (e.g. conifers and broadleaves then sub-divided into species groupings) may well result in higher standard errors, especially for the categories that occur less frequently such as minor species
- More variability will also result in higher standard errors; for instance if a species is usually more evenly stocked when compared with another then its standard error will tend to be lower than the latter species.

Stocked area at 31 March 2012

Figure 1 Principal tree species composition by stocked area at 31 March 2012

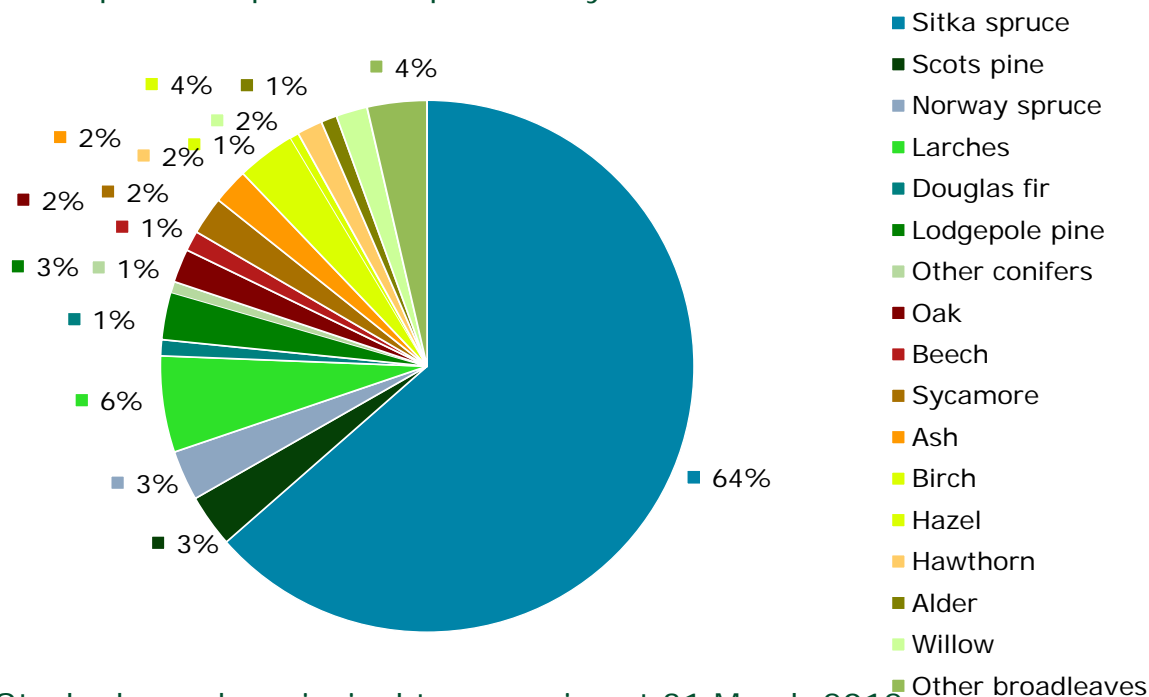


Table 1 Stocked area by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
Conifers				
Sitka spruce	80.6	100.6	3	181.1
Scots pine	2.0	7.1	14	9.1
Norway spruce	2.9	5.9	16	8.7
Larches	7.7	9.0	11	16.6
Douglas fir	< 1	1.9	27	2.8
Lodgepole pine	6.0	2.3	25	8.3
Other conifers	< 1	1.2	26	1.9
All conifers	100.7	128.4	2	229.1
Broadleaves				
Oak	< 1	5.3	12	5.8
Beech	< 1	3.4	15	3.5
Sycamore	< 1	6.5	10	6.6
Ash	< 1	6.1	10	6.1
Birch	< 1	9.6	10	10.2
Hazel	< 1	1.5	23	1.5
Hawthorn	< 1	4.4	16	4.4
Alder	< 1	2.7	16	2.8
Willow	< 1	5.4	25	5.4
Other broadleaves	4.4	5.9	11	10.3
All broadleaves	6.0	50.6	5	56.6
All species				
All species	106.7	179.2	1	285.8

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Table 2 Stocked area by age class at 31 March 2012

Age class	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers				
0–10 years	16.1	20.7	8	36.8
11–20 years	14.7	21.3	9	35.9
21–40 years	42.7	57.2	6	99.9
41–60 years	24.1	24.2	9	48.3
61–80 years	2.8	2.6	25	5.3
81+ years	< 1	2.5	27	2.8
Total	100.7	128.4	2	229.1
All broadleaves				
0–10 years	1.8	7.8	13	9.6
11–20 years	1.7	10.8	10	12.5
21–40 years	1.4	16.7	9	18.0
41–60 years	< 1	9.6	10	9.9
61–80 years	< 1	2.9	19	3.2
81–100 years	< 1	1.7	28	1.7
100+ years	< 1	1.2	26	1.6
Total	6.0	50.6	5	56.6
All species				
0–10 years	17.9	28.6	6	46.5
11–20 years	16.3	32.2	7	48.5
21–40 years	44.1	74.0	5	118.1
41–60 years	24.4	34.0	7	58.4
61–80 years	3.1	5.4	16	8.5
81–100 years	< 1	2.0	25	2.3
100+ years	< 1	3.1	22	3.6
Total	106.7	179.2	1	285.8

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Table 3 Stocked area by mean stand dbh class at 31 March 2012

Mean stand DBH	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers				
0–10 cm	26.2	34.0	3	60.2
10–15 cm	19.3	14.2	12	33.6
15–20 cm	30.2	23.7	9	53.8
20–30 cm	19.6	41.9	6	61.5
30–40 cm	3.9	10.5	13	14.3
40–60 cm	1.5	3.3	19	4.8
60–80 cm	0.1	0.8	42	0.8
80+ cm	0.0	0.0	-	0.0
Total	100.7	128.4	2	229.1
All broadleaves				
0–10 cm	4.5	24.2	11	28.8
10–15 cm	0.6	7.9	13	8.5
15–20 cm	0.4	4.4	13	4.9
20–30 cm	0.3	5.1	14	5.4
30–40 cm	0.1	3.5	14	3.6
40–60 cm	0.0	3.2	17	3.2
60–80 cm	0.0	1.9	26	1.9
80+ cm	0.0	0.4	46	0.4
Total	6.0	50.6	5	56.6
All species				
0–10 cm	30.7	58.4	6	89.1
10–15 cm	20.0	22.3	9	42.2
15–20 cm	30.6	28.2	8	58.8
20–30 cm	19.9	47.0	6	66.9
30–40 cm	3.9	14.0	10	18.0
40–60 cm	1.5	6.3	13	7.8
60–80 cm	0.1	2.7	22	2.8
80+ cm	0.0	0.4	45	0.4
Total	106.7	179.2	1	285.8

Table 4 Felled area at 31 March 2012

Clearfelled area	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
	8.2	9.4	14	17.6

Standing volume at 31 March 2012

Figure 2 Principal tree species composition by standing volume at 31 March 2012

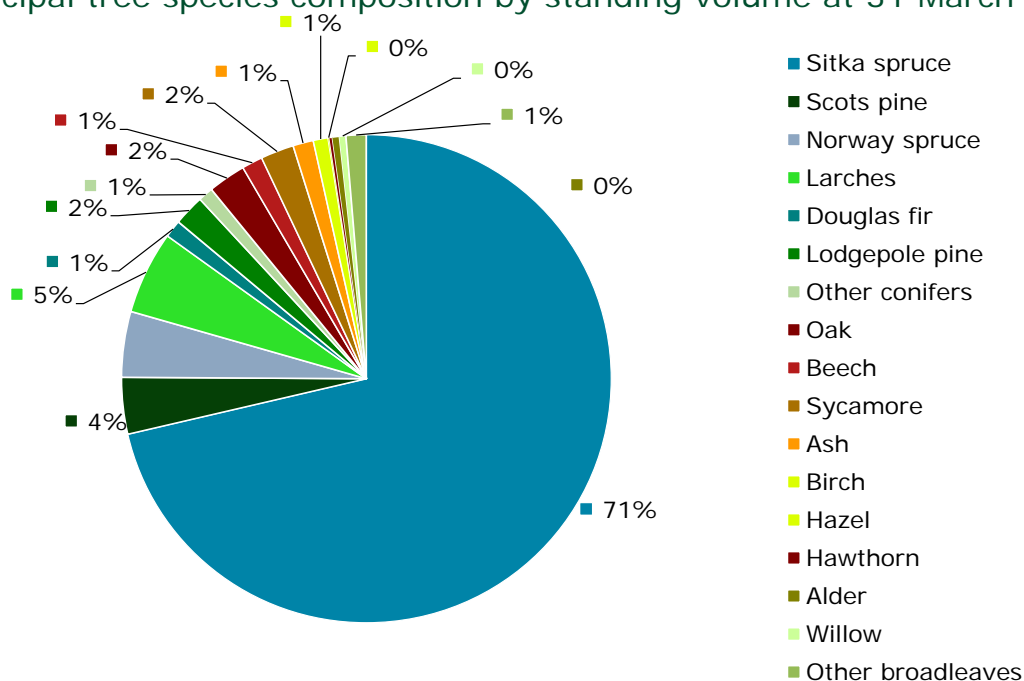


Table 5 Standing volume by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Conifers				
Sitka spruce	17,267	32,869	5	50,135
Scots pine	247	2,389	17	2,636
Norway spruce	757	2,300	19	3,057
Larches	1,229	2,626	15	3,855
Douglas fir	200	618	36	818
Lodgepole pine	996	431	30	1,428
Other conifers	182	513	29	696
All conifers	20,878	42,010	4	62,888
Broadleaves				
Oak	82	1,665	20	1,747
Beech	22	938	24	960
Sycamore	17	1,521	15	1,538
Ash	9	950	18	959
Birch	49	638	14	687
Hazel	< 1	57	32	58
Hawthorn	0	137	17	137
Alder	6	318	23	324
Willow	0	306	29	306
Other broadleaves	143	790	25	933
All broadleaves	327	7,323	8	7,650
All species				
All species	21,205	49,356	3	70,560

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Table 6 Standing volume by age class at 31 March 2012

Age class	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
0–10 years	5	1	44	7
11–20 years	431	1,672	15	2,103
21–40 years	10,310	24,359	7	34,669
41–60 years	8,919	13,723	11	22,642
61–80 years	1,073	1,253	26	2,326
81–100 years	113	256	45	370
100+ years	24	747	31	771
Total	20,878	42,010	4	62,888
All broadleaves				
0–10 years	< 1	7	45	7
11–20 years	12	271	22	284
21–40 years	66	1,861	11	1,927
41–60 years	51	2,433	15	2,485
61–80 years	61	1,157	27	1,218
81–100 years	15	1,072	29	1,087
100+ years	122	521	31	643
Total	327	7,323	8	7,650
All species				
0–10 years	5	8	40	13
11–20 years	444	1,953	14	2,397
21–40 years	10,376	26,226	6	36,602
41–60 years	8,971	16,236	9	25,207
61–80 years	1,134	2,416	19	3,550
81–100 years	128	1,245	26	1,374
100+ years	146	1,271	23	1,418
Total	21,205	49,356	3	70,560

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Table 7 Standing volume by mean stand dbh class at 31 March 2012

Mean stand DBH	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
0–7 cm	< 1	3	60	4
7–10 cm	113	413	13	526
10–15 cm	2,077	1,817	15	3,894
15–20 cm	8,586	7,576	10	16,162
20–30 cm	8,165	23,311	7	31,475
30–40 cm	1,360	6,563	15	7,923
40–60 cm	526	1,744	18	2,270
60–80 cm	43	583	42	626
80+ cm	7	0	-	7
Total	20,878	42,010	4	62,888
All broadleaves				
0–7 cm	1	45	17	46
7–10 cm	47	389	11	437
10–15 cm	86	775	13	861
15–20 cm	97	683	15	780
20–30 cm	77	1,100	16	1,178
30–40 cm	13	1,290	18	1,303
40–60 cm	1	1,440	19	1,441
60–80 cm	2	1,147	29	1,149
80+ cm	1	454	45	455
Total	327	7,323	8	7,650
All species				
0–7 cm	2	48	17	50
7–10 cm	161	805	9	966
10–15 cm	2,163	2,607	11	4,770
15–20 cm	8,683	8,288	9	16,971
20–30 cm	8,242	24,408	7	32,650
30–40 cm	1,373	7,889	13	9,262
40–60 cm	527	3,118	13	3,645
60–80 cm	45	1,735	24	1,781
80+ cm	8	456	45	465
Total	21,205	49,356	3	70,560

Biomass and carbon stocks at 31 March 2012

Table 8 Standing biomass by principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	biomass (000 odt)	biomass (000 odt)	SE%	biomass (000 odt)
Conifers				
Sitka spruce	11,733	19,395	5	31,128
Scots pine	183	1,628	17	1,810
Norway spruce	420	1,210	19	1,631
Larches	840	1,578	14	2,419
Douglas fir	140	426	36	567
Lodgepole pine	734	310	29	1,043
Other conifers	105	266	28	371
All conifers	14,156	24,964	3	39,120
Broadleaves				
Oak	78	1,407	19	1,485
Beech	21	836	23	857
Sycamore	16	1,302	14	1,319
Ash	8	866	17	875
Birch	51	672	14	722
Hazel	< 1	63	31	63
Hawthorn	0	181	16	181
Alder	6	267	23	272
Willow	0	343	26	343
Other broadleaves	153	714	23	867
All broadleaves	334	6,655	7	6,988
All species				
All species	14,490	31,635	3	46,125

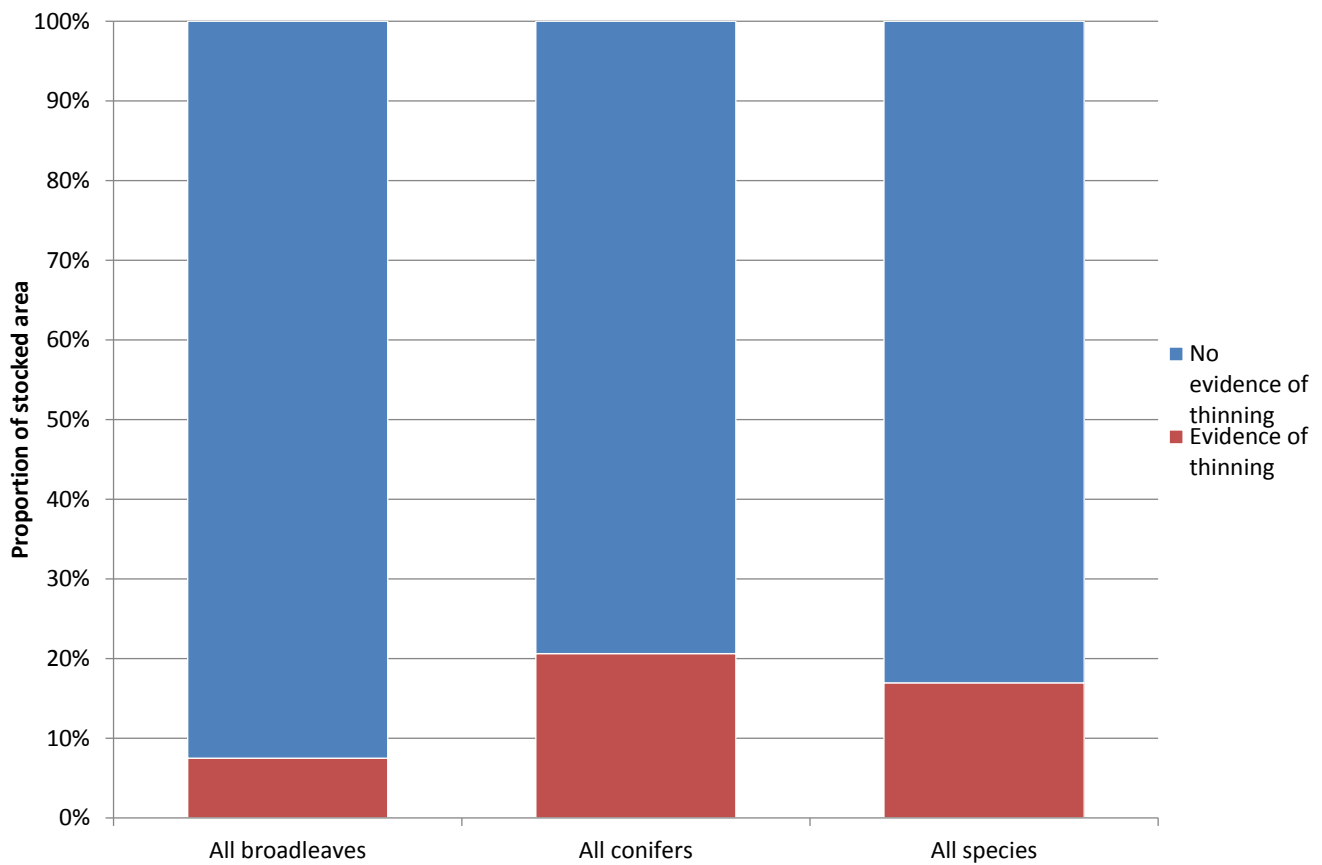
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Table 9 Total carbon stocks in principal tree species at 31 March 2012

Principal species	FC	Private sector		Total
	carbon (000 t)	carbon (000 t)	SE%	carbon (000 t)
Conifers				
Sitka spruce	5,867	9,698	5	15,564
Scots pine	91	814	17	905
Norway spruce	210	605	19	815
Larches	420	789	14	1,209
Douglas fir	70	213	36	283
Lodgepole pine	367	155	29	522
Other conifers	53	133	28	186
All conifers	7,078	12,482	3	19,560
Broadleaves				
Oak	39	703	19	743
Beech	11	418	23	429
Sycamore	8	651	14	659
Ash	4	433	17	437
Birch	25	336	14	361
Hazel	< 1	31	31	32
Hawthorn	0	91	16	91
Alder	3	133	23	136
Willow	0	172	26	172
Other broadleaves	76	357	23	434
All broadleaves	167	3,327	7	3,494
All species				
All species	7,245	15,818	3	23,063

Evidence of thinning

Figure 3 Evidence of thinning in Private sector sites



50-year forecast of timber availability

Refer to the NFI report *50-year forecast of softwood timber availability (2014)* for a description of the underlying methodology and interpretation of the softwood forecast, and also for the Scotland and GB context.

Refer to the NFI report *50-year forecast of hardwood timber availability (2014)* for a description of the underlying methodology and interpretation of the hardwood forecast, and also for the Scotland and GB context.

In **Tables 10-12** and **Figures 4-8** the figures for the Forestry Commission are based on harvesting regimes derived from Forestry Commission felling and thinning plans as of 31 March 2012.

For the Private sector, information for **Tables 10-12** and **Figures 4-8** is based on a scenario which assumes felling at age of maximum mean annual increment with moderate wind risk measures for conifers. For broadleaves, however, only those areas where there is evidence of thinning are assumed to be managed in future. This is a highly conservative assumption but better reflects current practice than assuming all stands will be managed. In turn it is assumed that these broadleaved stands are managed to felling at age of maximum mean annual increment with moderate wind risk measures.

Restocking assumptions for conifer stands clearfelled during the forecast period have been implemented that provide for:

- a 10% reduction in the area of conifers on the subsequent rotation
- restocking of currently clearfelled land
- predicted species choices are used for the restocking

Restocking assumptions for broadleaved stands clearfelled during the forecast period have been included that provide for:

- No reduction in stocked area.
- Like for like species choices are used for broadleaves.
- That 50% of the land associated with the reduction in conifer stocked area arising from the assumption above is stocked with broadleaves.

A full description of the restocking assumptions is to be found in **Table D4** of the *50-year forecast of softwood timber availability (2014)*. The same restocking assumptions have been applied to both the FC and Private sector forecasts.

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Woodland that is classed as currently clearfelled will be restocked according to the restock prescription.

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50-year forecast under the 'headline' harvesting scenario

Table 10 50-year forecast of average annual timber availability by time period and principal species

Principal species	2013–16			2017–21			2022–26			2027–31						
	FC	Private sector	Total	FC	Private sector	Total	FC	Private sector	Total	FC	Private sector	Total				
	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)				
All conifers	1,210	1,701	12	2,912	1,270	2,100	10	3,370	1,231	2,513	10	3,745	1,202	3,281	9	4,483
Sitka spruce	1030	1,345	15	2376	1077	1,675	12	2752	1096	2,124	11	3220	1057	2,926	10	3983
Scots pine	6	53	30	59	8	64	22	72	7	110	33	117	7	91	35	98
Norway spruce	33	97	24	131	36	65	20	102	23	110	31	133	32	92	34	124
Larches	47	138	22	185	73	163	22	236	49	131	19	180	62	96	26	158
Douglas fir	4	28	40	32	12	64	55	76	9	15	27	24	9	19	37	28
Lodgepole pine	85	15	65	100	57	7	40	64	38	8	37	47	27	26	43	53
Other conifers	4	13	29	17	6	47	47	54	8	14	31	22	8	11	33	19
All broadleaves	1	69	28	70	1	66	26	67	2	34	17	35	1	34	18	35
Oak	< 1	12	70	12	< 1	11	75	11	< 1	4	44	4	< 1	2	22	2
Beech	< 1	4	65	5	< 1	5	55	6	< 1	7	46	7	< 1	5	55	5
Sycamore	< 1	38	37	38	< 1	30	34	30	< 1	9	27	9	< 1	5	31	6
Ash	< 1	7	36	7	< 1	9	36	9	< 1	3	22	3	< 1	4	49	4
Birch	< 1	3	33	3	< 1	4	26	4	< 1	5	19	5	< 1	9	45	9
Hazel	0	< 1	39	< 1	0	< 1	44	< 1	< 1	< 1	58	< 1	0	< 1	54	< 1
Hawthorn	0	< 1	33	< 1	0	< 1	25	< 1	0	< 1	25	< 1	0	< 1	21	< 1
Alder	< 1	2	57	2	< 1	3	65	3	< 1	1	53	1	< 1	3	55	3
Willow	0	< 1	37	< 1	0	1	28	1	0	1	27	1	0	2	27	2
Other broadleaves	< 1	1	49	2	< 1	2	40	2	< 1	2	24	2	< 1	3	40	3
All species	1,212	1,775	12	2,987	1,271	2,170	9	3,442	1,233	2,553	10	3,786	1,203	3,326	9	4,529

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Table 10 (cont'd) 50-year forecast of average annual timber availability by time period and principal species

Principal species	2032–36			2037–41			2042–46			2047–51						
	FC	Private sector	Total	FC	Private sector	Total	FC	Private sector	Total	FC	Private sector	Total				
	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)				
All conifers	1,026	2,408	10	3,434	893	1,958	10	2,851	892	1,688	10	2,580	1,082	1,389	10	2,471
Sitka spruce	920	1,930	12	2,850	769	1,592	12	2,362	733	1,348	11	2,081	870	1,062	12	1,933
Scots pine	6	128	44	134	16	48	26	65	22	90	34	112	32	79	22	112
Norway spruce	18	148	38	167	20	163	31	183	27	105	50	132	46	152	37	198
Larches	52	106	20	158	53	54	20	107	65	46	20	111	62	55	20	117
Douglas fir	10	26	41	36	12	24	42	36	13	24	34	37	15	19	18	34
Lodgepole pine	14	29	49	43	14	37	55	51	21	51	50	72	42	5	51	47
Other conifers	6	23	42	29	8	27	64	35	10	15	48	26	14	13	11	27
All broadleaves	3	25	11	28	4	33	12	37	7	47	9	54	10	50	13	59
Oak	< 1	2	22	3	< 1	3	21	4	2	4	21	6	3	4	21	7
Beech	< 1	3	24	3	< 1	4	36	4	< 1	4	37	4	< 1	6	40	6
Sycamore	< 1	6	29	6	< 1	8	23	8	< 1	9	19	10	< 1	8	23	9
Ash	< 1	2	16	2	< 1	3	22	3	< 1	7	17	7	< 1	4	19	5
Birch	< 1	4	23	4	< 1	6	37	6	1	11	16	12	1	11	22	12
Hazel	< 1	< 1	53	< 1	0	< 1	44	< 1	0	< 1	41	< 1	0	5	66	5
Hawthorn	0	< 1	22	< 1	0	< 1	20	< 1	0	< 1	18	< 1	0	< 1	18	< 1
Alder	< 1	2	33	2	< 1	3	26	3	1	5	21	6	2	4	18	6
Willow	0	3	25	3	0	3	25	3	0	3	25	3	< 1	2	25	2
Other broadleaves	< 1	2	18	3	1	2	16	3	2	4	18	6	2	4	46	6
All species	1,029	2,407	10	3,436	897	1,998	10	2,895	899	1,739	10	2,638	1,092	1,441	9	2,533

Note that the independent calculation of the estimates has led to the All species estimate being slightly lower than the sum of the All conifers and All broadleaves estimate for the 2032–36 period for the PS. Please refer to the cautionary note at the beginning of the results section.

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Table 10 (cont'd) 50-year forecast of average annual timber availability by time period and principal species

Principal species	2052–56			2057–61			Total volume (000 m ³ obs)	
	FC	Private sector	Total	FC	Private sector	Total		
	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)		
All conifers	798	1,823	8	2,621	682	1,787	8	2,469
Sitka spruce	620	1,603	9	2,223	537	1,555	9	2,092
Scots pine	26	71	23	96	26	82	14	108
Norway spruce	30	44	48	74	34	42	24	76
Larches	60	30	14	91	36	33	16	69
Douglas fir	14	31	20	46	19	29	21	48
Lodgepole pine	27	16	56	43	10	15	77	25
Other conifers	21	25	9	46	21	29	8	50
All broadleaves	14	48	14	62	18	59	17	77
Oak	4	4	14	9	3	5	12	8
Beech	< 1	10	44	10	< 1	2	33	3
Sycamore	< 1	11	30	11	< 1	21	40	21
Ash	< 1	3	29	3	< 1	3	45	4
Birch	2	7	17	8	5	6	13	11
Hazel	< 1	< 1	30	< 1	< 1	< 1	49	< 1
Hawthorn	0	< 1	18	< 1	0	< 1	19	< 1
Alder	6	7	14	14	9	15	25	24
Willow	< 1	2	26	2	< 1	3	25	3
Other broadleaves	2	2	17	4	< 1	2	17	3
All species	813	1,871	8	2,683	700	1,846	8	2,546

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Table 11 50-year forecast of standing volume; average annual volumes within periods

Forecast period	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
2013–16	20,484	42,212	3	62,696
2017–21	19,134	42,272	3	61,406
2022–26	17,585	40,189	4	57,774
2027–31	16,102	34,159	4	50,261
2032–36	15,525	28,312	4	43,837
2037–41	15,699	25,635	4	41,334
2042–46	16,381	25,043	4	41,424
2047–51	17,220	25,359	4	42,579
2052–56	18,313	25,822	4	44,135
2057–61	20,810	25,775	3	46,584
All broadleaves				
2013–16	359	7,631	7	7,989
2017–21	428	8,438	7	8,866
2022–26	526	9,592	7	10,118
2027–31	645	10,881	6	11,525
2032–36	784	12,161	6	12,945
2037–41	930	13,385	6	14,315
2042–46	1,071	14,468	6	15,539
2047–51	1,197	15,436	5	16,633
2052–56	1,299	16,325	5	17,624
2057–61	1,383	17,146	5	18,529
All species				
2013–16	20,842	49,864	3	70,706
2017–21	19,562	50,727	3	70,289
2022–26	18,111	49,783	3	67,895
2027–31	16,747	45,005	3	61,752
2032–36	16,309	40,562	3	56,871
2037–41	16,630	39,107	3	55,737
2042–46	17,452	39,596	3	57,048
2047–51	18,417	40,879	3	59,295
2052–56	19,613	42,231	3	61,844
2057–61	22,193	43,013	3	65,206

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Table 12 50-year forecast of net increment; average annual volumes within periods

Forecast period	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
All conifers				
2013–16	1,025	1,944	3	2,969
2017–21	984	2,010	3	2,994
2022–26	916	1,931	3	2,847
2027–31	928	1,774	3	2,701
2032–36	956	1,603	3	2,559
2037–41	1,014	1,544	3	2,558
2042–46	1,082	1,589	3	2,671
2047–51	1,139	1,654	3	2,793
2052–56	1,166	1,735	3	2,901
2057–61	1,215	1,764	2	2,979
All broadleaves				
2013–16	14	214	7	228
2017–21	18	259	5	277
2022–26	23	285	5	308
2027–31	27	288	5	315
2032–36	32	280	5	311
2037–41	33	267	5	300
2042–46	34	252	5	286
2047–51	34	237	5	271
2052–56	33	223	5	256
2057–61	32	209	5	241
All species				
2013–16	1,039	2,160	3	3,199
2017–21	1,002	2,272	2	3,274
2022–26	939	2,219	2	3,158
2027–31	955	2,064	3	3,019
2032–36	987	1,887	3	2,874
2037–41	1,047	1,816	3	2,863
2042–46	1,116	1,846	2	2,961
2047–51	1,173	1,894	2	3,067
2052–56	1,199	1,959	2	3,158
2057–61	1,248	1,974	2	3,221

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Figure 4 Overview of 50-year forecast of average annual softwood availability

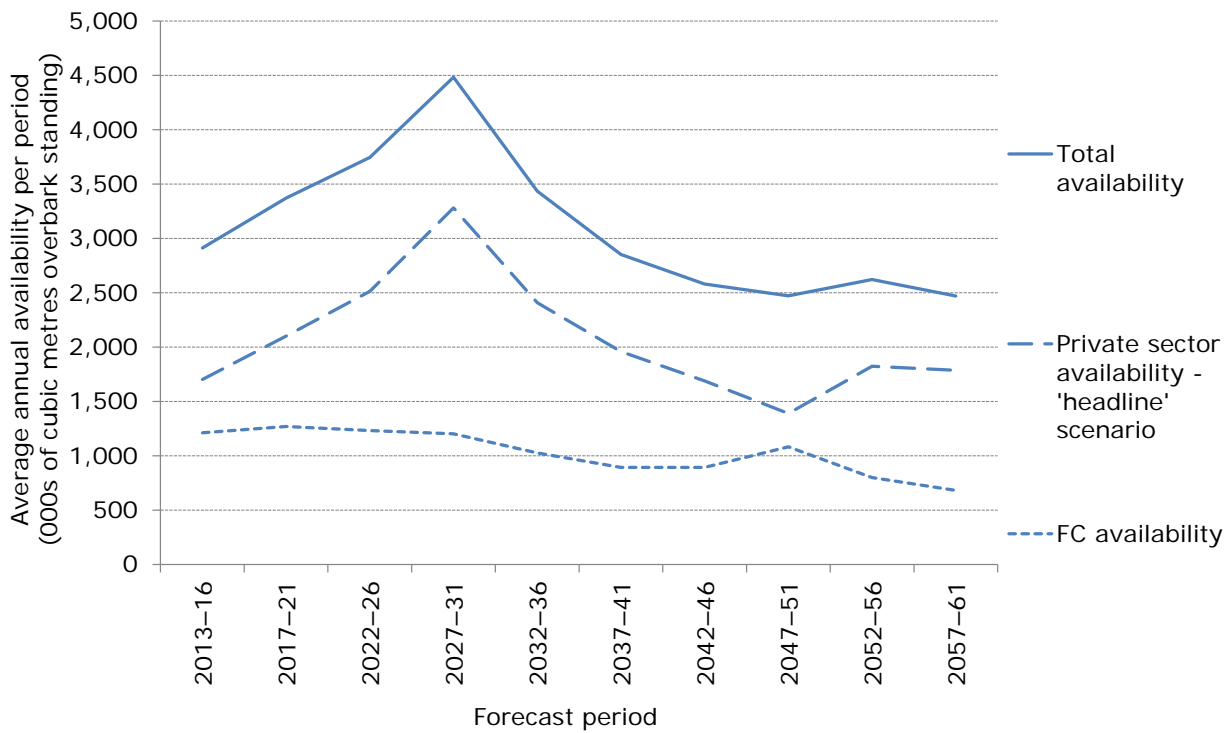


Figure 5 50-year forecast of average annual softwood availability

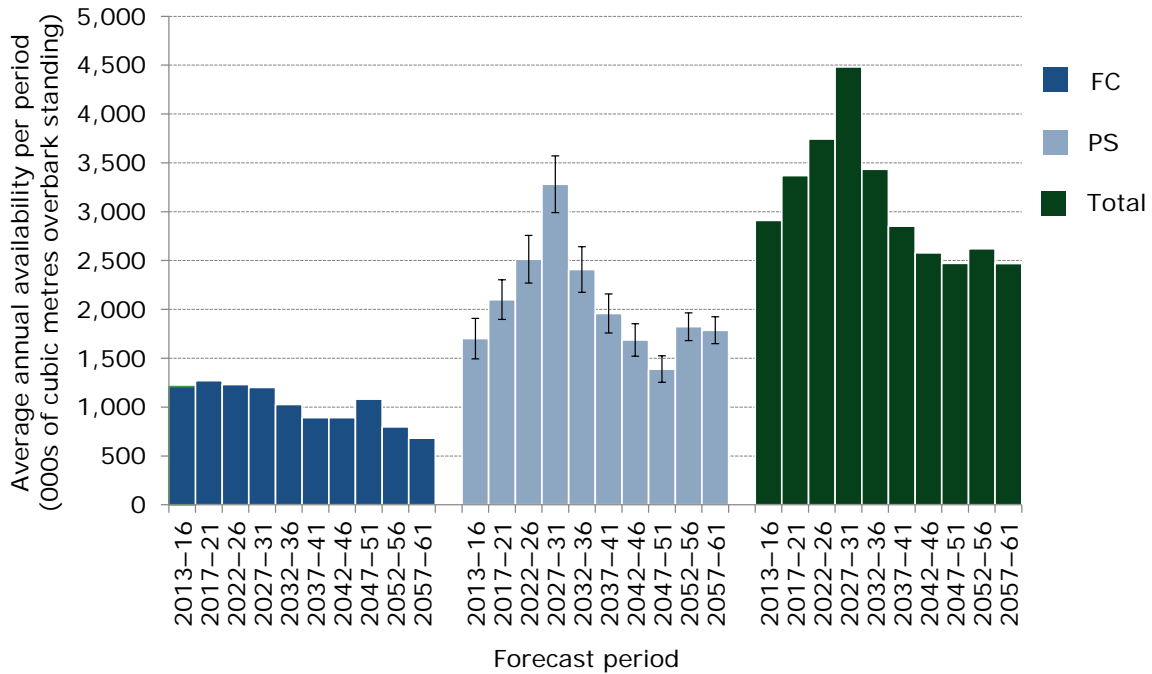
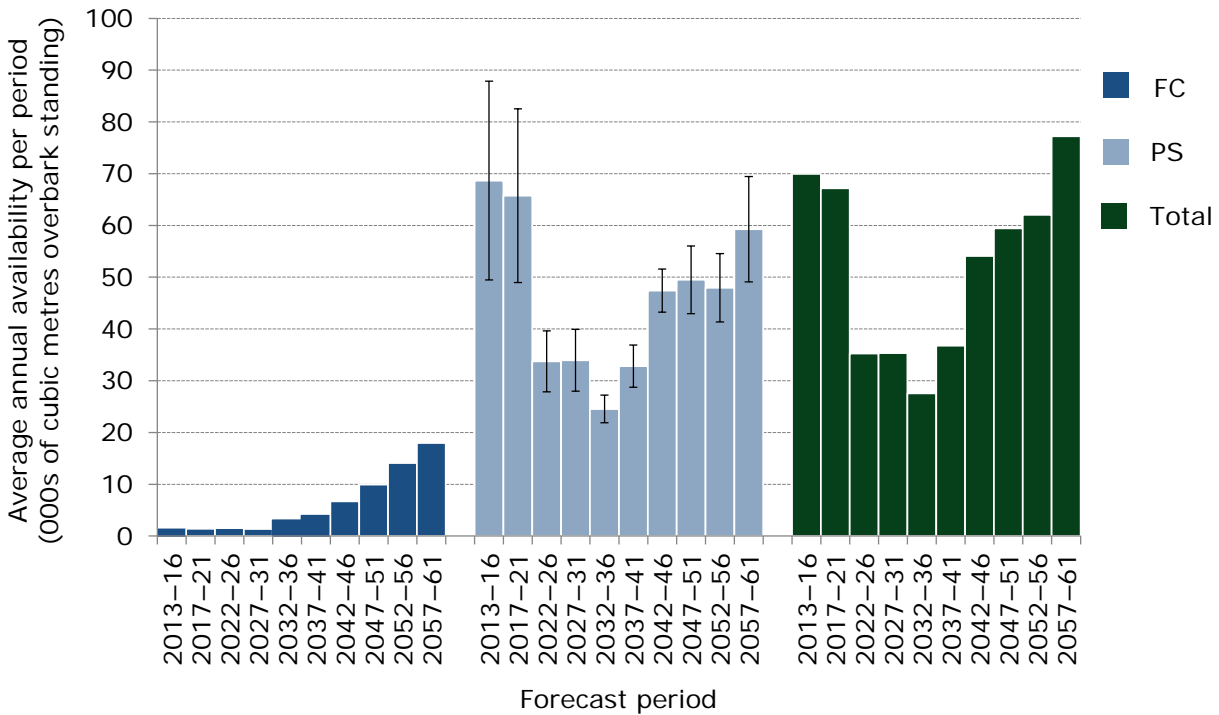


Figure 6 50-year forecast of average annual hardwood availability



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Figure 7 50-year forecast of softwood standing volume, increment and availability

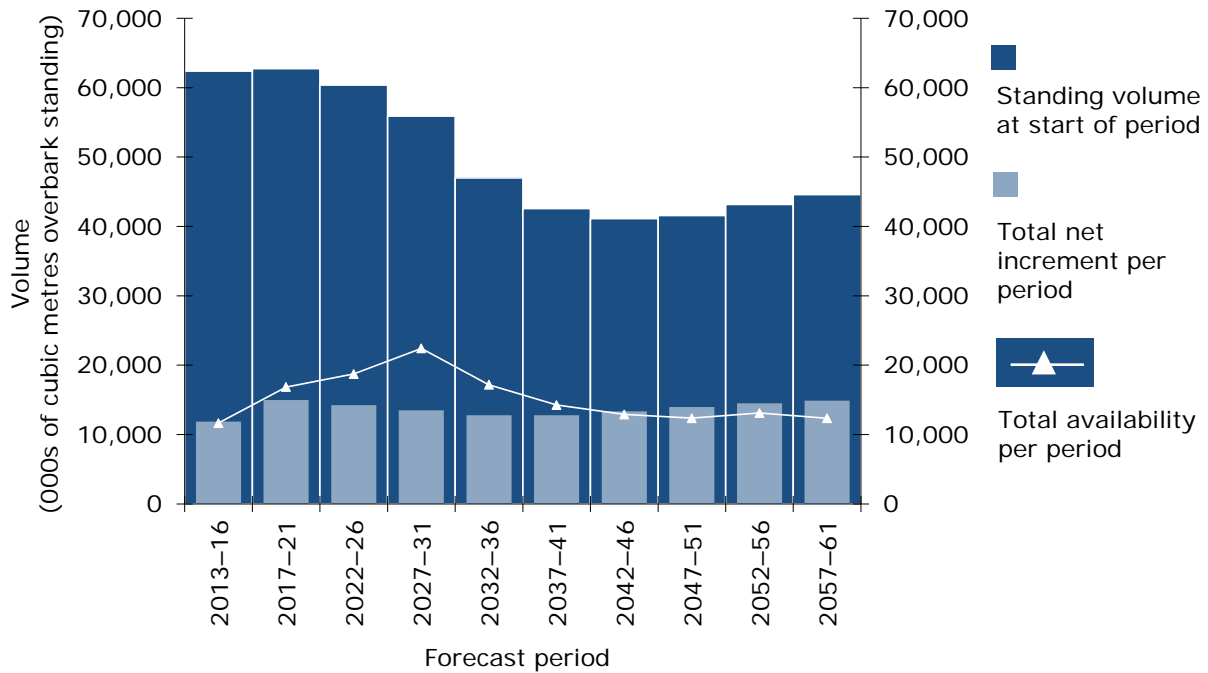
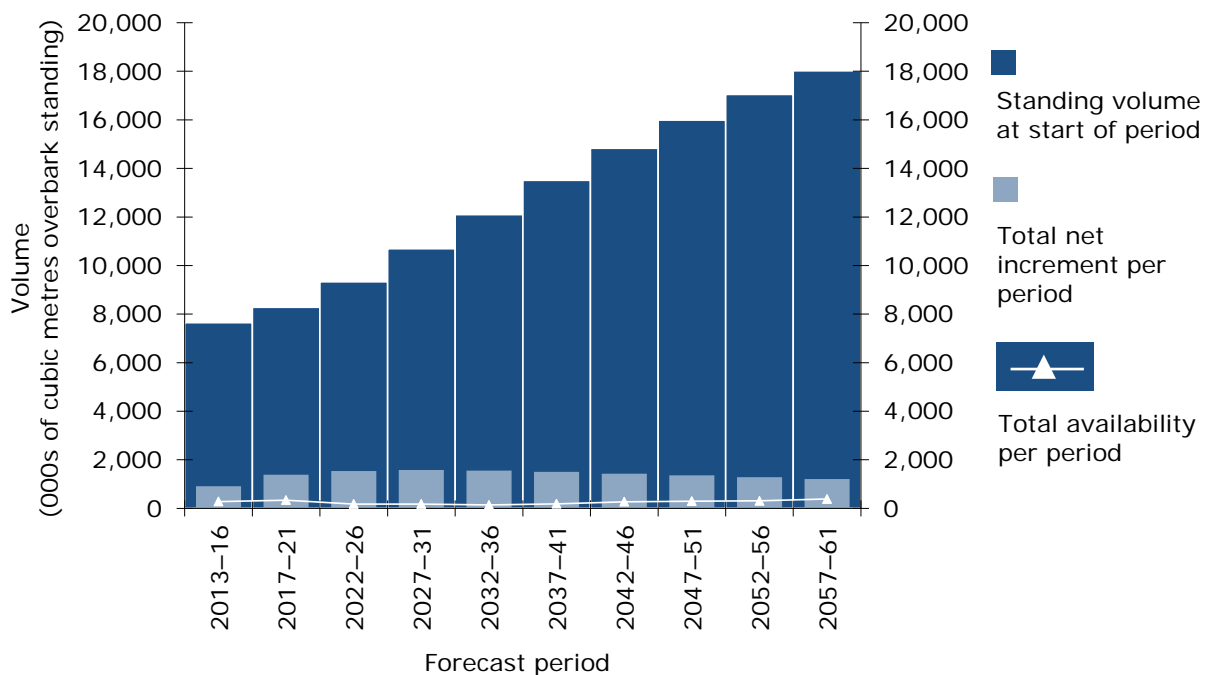


Figure 8 50-year forecast of hardwood standing volume, increment and availability



NFI national reports and papers

The principal themes reported on for the 2011 woodland profile and future forecasts are:

- GB 2011 preliminary estimates of broadleaved species
- GB 2011 standing coniferous timber volume
- UK 25-year forecast of softwood availability
- GB 25-year forecast of coniferous standing volume and increment
- Biomass in live woodland trees in Britain
- Carbon in live woodland trees in Britain

The principal themes reported on for the 2012 woodland profile and future forecasts are:

- 50-year forecast of softwood timber availability
- 50-year forecast of hardwood timber availability
- 25-year forecast of softwood availability (2016) update

Each theme has a series of reports, papers and data, tailored for different audiences and uses. All the documents and data can be found on the NFI website

www.forestry.gov.uk/inventory.

Glossary

A glossary of terms is presented in the full suite of forecast reports which can be found at www.forestry.gov.uk/forecast.

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This report contains a subset of the information provided in the Official Statistics reports *50-year forecast of softwood timber availability* (2014) and *50-year forecast of hardwood timber availability* (2014) publications. More information about Official Statistics and the UK Statistics Authority is available at www.statisticsauthority.gov.uk

National Forest Inventory Statistician: Alan Brewer