

NFI 25-year projection of timber availability in the Aberdeenshire Council Area

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Summary

This report provides a detailed picture of the 25-year forecast of timber availability for the Aberdeenshire Council Area. Although presented for different periods, these estimates are effectively a subset of those published as part of the 50-year forecast estimates presented in the National Forest Inventory (NFI) *50-year forecasts of softwood timber availability* (2014) and *50-year forecast of hardwood timber availability* (2014) reports. NFI reports are published at www.forestry.gov.uk/inventory.

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 *NFI forecasts methodology overview* 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 methodology and interpretation underlying the forecast in this report are discussed in the NFI reports *50-year forecast of softwood timber availability (2014)* and the *50-year forecast of hardwood timber availability (2014)*. These reports can also be referred to for the wider Scotland and Great Britain context.

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. These field samples constitute approximately two thirds of the sites to be sampled within the first cycle of NFI field sampling. As a consequence, the estimates in this report are described as provisional.

25-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.

The timber availability estimates for the Forestry Commission are derived using the harvesting regimes described in the Forestry Commission approved forest design plans and thinning plans as of 31 March 2012.

The softwood timber availability estimates for the Private sector are based on a scenario which assumes conifers are felled at age of maximum mean annual increment with moderate wind risk measures being taken. The hardwood timber availability estimates are derived only from those areas where there is evidence of thinning in broadleaves. This is a conservative assumption but more closely reflects current practice than assuming all broadleaved stands will be managed. Those broadleaved stands that are assumed to be subject to future management under this scenario are felled at age of maximum mean annual increment with moderate wind risk measures being taken.

Where standing conifers are already beyond the age of maximum mean annual increment, the forecast assumes that a proportion will be felled during the forecast period. The assumptions can be found in full in **Table D2** of the NFI report *50-year forecast of softwood timber availability (2014)*. Where standing broadleaves are already beyond the age of maximum mean annual increment, the forecast assumes that a proportion will be felled during the forecast period. The assumptions can be found in full in the section 'Overdue timber' starting on **Page 20** of the NFI report *50-year forecast of hardwood timber availability (2014)*.

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
- currently clearfelled land is restocked
- a change in the composition of conifer species on restocking

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

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- No reduction in stocked area
- Like for like species choices
- That 50% of the land associated with the reduction in conifer stocked area after felling of conifers

A full description of the restocking assumptions can be found in **Table D4** of the NFI report *50-year forecast of softwood timber availability* (2014). The same restocking assumptions have been applied to both the FC and Private sector forecasts. Woodland that is classed as currently clearfelled will be restocked according to the restock prescription.

It should be noted that a small amount of thinning volume arising from restocking is included in the timber availability estimates for later periods of the forecast.

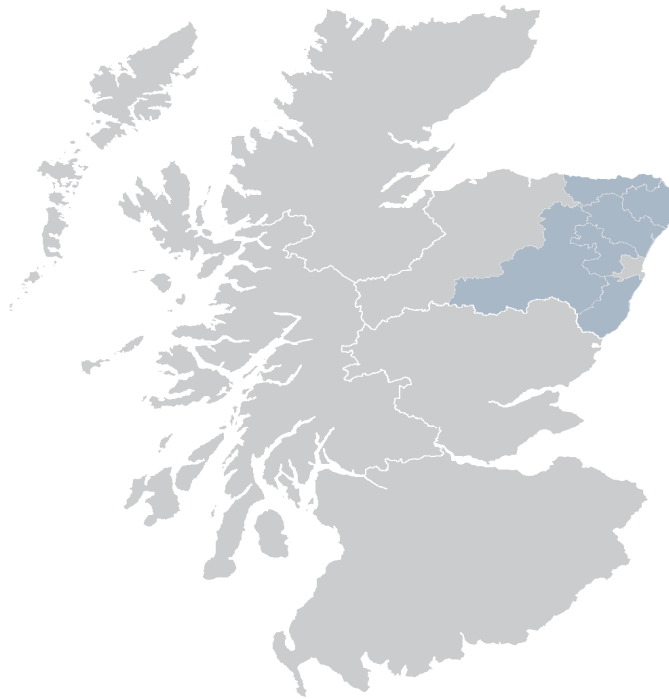
Results

The results presented in this report are estimates of the 25-year forecast of softwood and hardwood availability under the harvesting scenario as described, for the Aberdeenshire Council Area.

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 generating 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.

Results for the Aberdeenshire Council Area

Map 1 Aberdeenshire



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Table 1 Summary of stocked area 31 March 2012 – Aberdeenshire

	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	23.6	54.7	3	78.2
All broadleaves	1.7	21.6	6	23.3
All species	25.3	76.6	2	101.9

Tables A1 and A2 showing the 25-year forecast broken down by time period, top diameter class and principal species groups can be found in the associated spreadsheet.

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Figure 1 Summary of 25-year forecast of annual softwood timber availability – Aberdeenshire

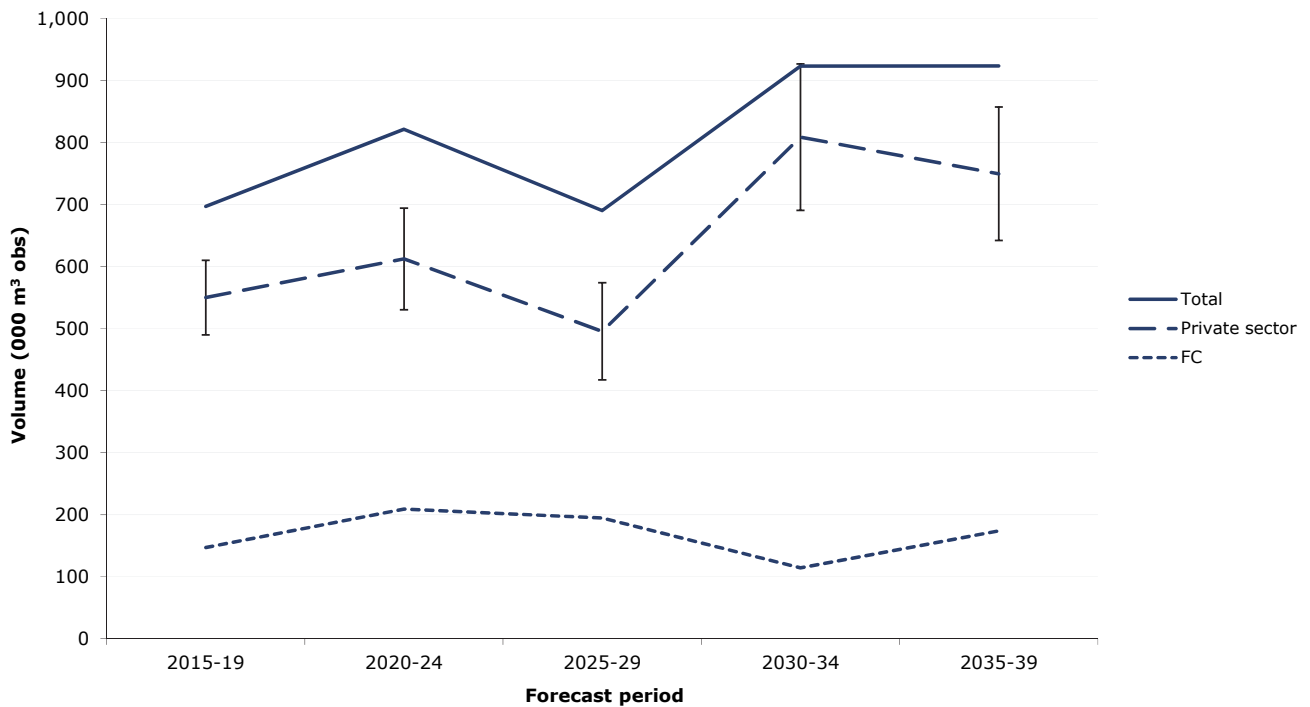


Table 2 Summary of 25-year forecast of average annual timber availability – Aberdeenshire

Forecast period	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2015-19	147	550	11	697
2020-24	209	612	13	821
2025-29	195	496	16	690
2030-34	114	808	15	923
2035-39	174	749	14	923
Hardwood				
2015-19	0	42	34	42
2020-24	1	37	27	38
2025-29	1	44	44	45
2030-34	1	22	15	23
2035-39	2	41	21	43
Total				
2015-19	147	596	10	743
2020-24	210	655	13	865
2025-29	196	545	15	741
2030-34	115	839	14	955
2035-39	176	771	14	947

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Figure 2 Cumulative softwood timber availability over the 25-year forecast – Aberdeenshire

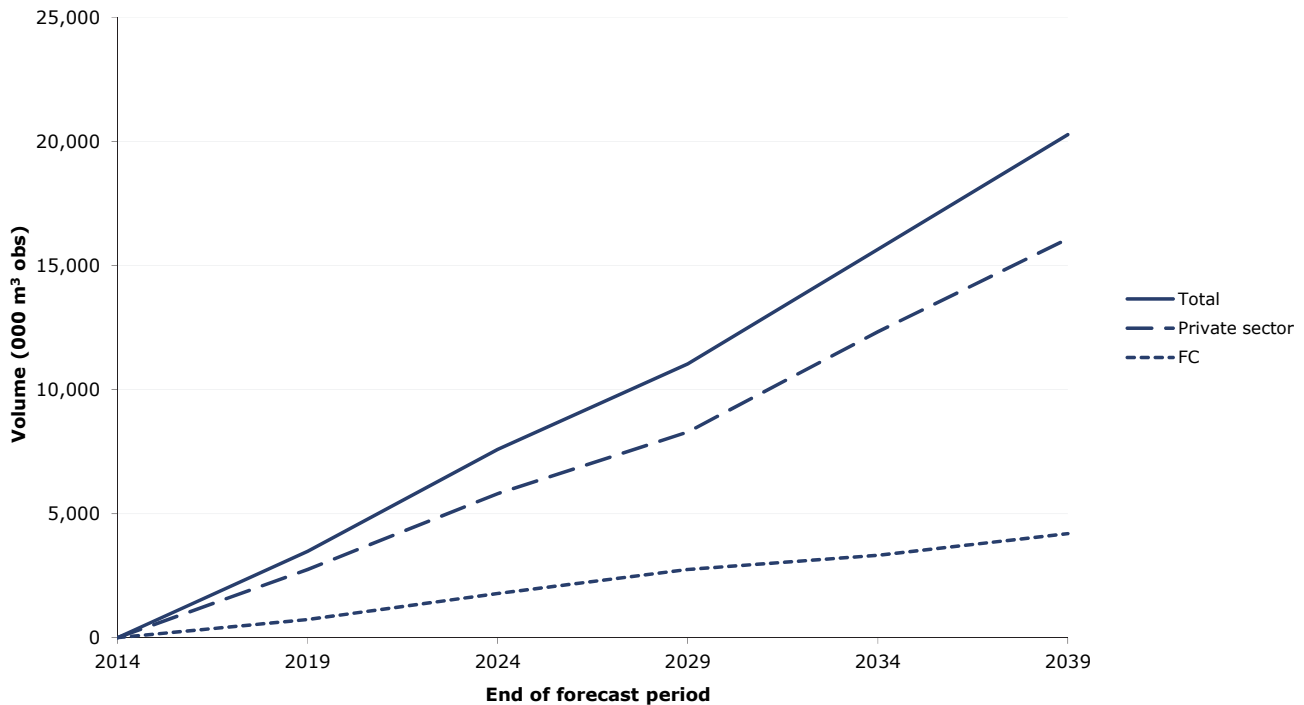


Table 3 Cumulative timber availability over the 25-year forecast – Aberdeenshire

Forecast period	FC	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2015-19	735	2,749	3,484
2015-24	1,779	5,810	7,589
2015-29	2,752	8,287	11,040
2015-34	3,324	12,329	15,654
2015-39	4,193	16,076	20,270
Hardwood			
2015-19	2	208	210
2015-24	7	391	398
2015-29	14	610	624
2015-34	19	719	738
2015-39	30	921	952
Total			
2015-19	737	2,980	3,717
2015-24	1,786	6,254	8,040
2015-29	2,766	8,977	11,743
2015-34	3,344	13,173	16,517
2015-39	4,224	17,028	21,251

Results for Aberdeenshire northern Committee Areas

Map 2 Committee Areas – Banff and Buchan, Buchan and Formartine



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Table 4 Summary of stocked area 31 March 2012 – Aberdeenshire (north)

	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	0.3	7.6	15	7.8
All broadleaves	0.0	6.2	15	6.2
All species	0.3	13.8	5	14.1

Tables A3 and A4 showing the 25-year forecast broken down by time period, top diameter class and principal species groups can be found in the associated spreadsheet.

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Figure 3 Summary of 25-year forecast of annual softwood timber availability – Aberdeenshire (north)

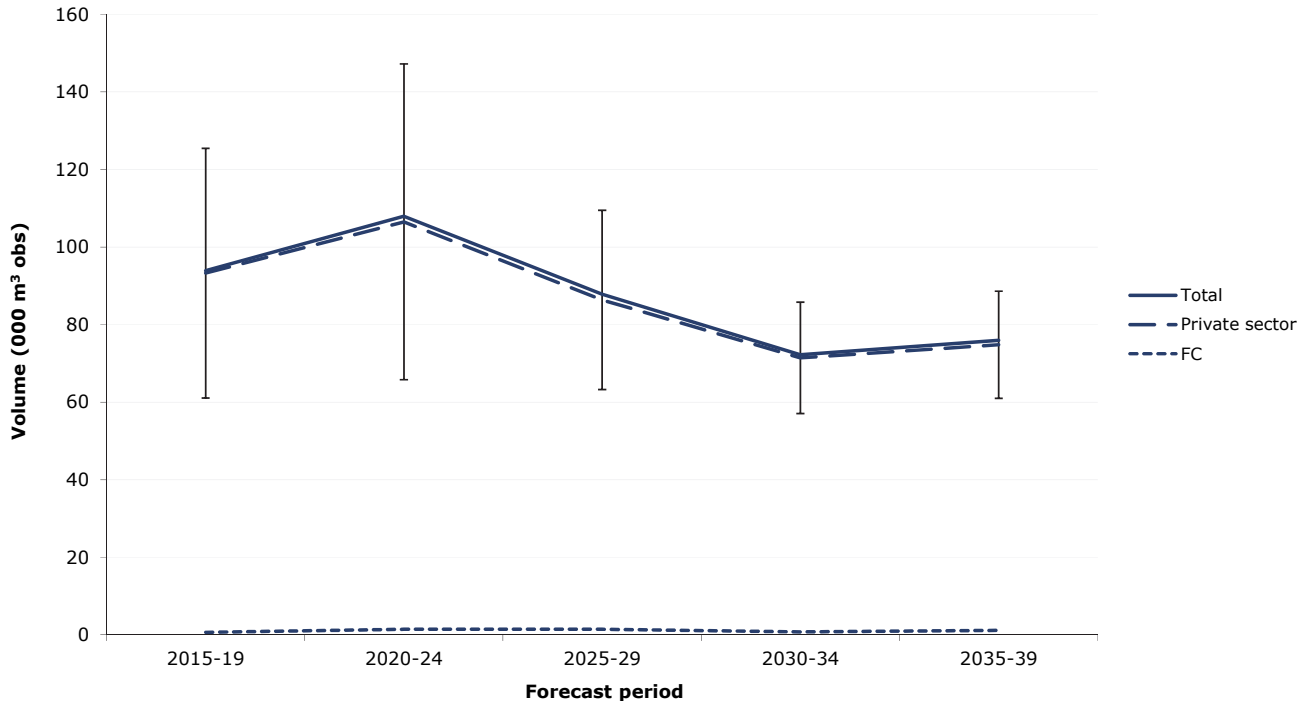


Table 5 Summary of 25-year forecast of average annual timber availability – Aberdeenshire (north)

Forecast period	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2015-19	1	93	35	94
2020-24	1	106	38	108
2025-29	1	86	27	88
2030-34	1	71	20	72
2035-39	1	75	18	76
Hardwood				
2015-19	0	9	86	9
2020-24	0	7	76	7
2025-29	0	12	62	12
2030-34	0	5	30	5
2035-39	0	8	29	8
Total				
2015-19	1	102	33	102
2020-24	1	113	36	114
2025-29	1	98	24	100
2030-34	1	77	18	77
2035-39	1	82	15	84

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Figure 4 Cumulative softwood timber availability over the 25-year forecast – Aberdeenshire (north)

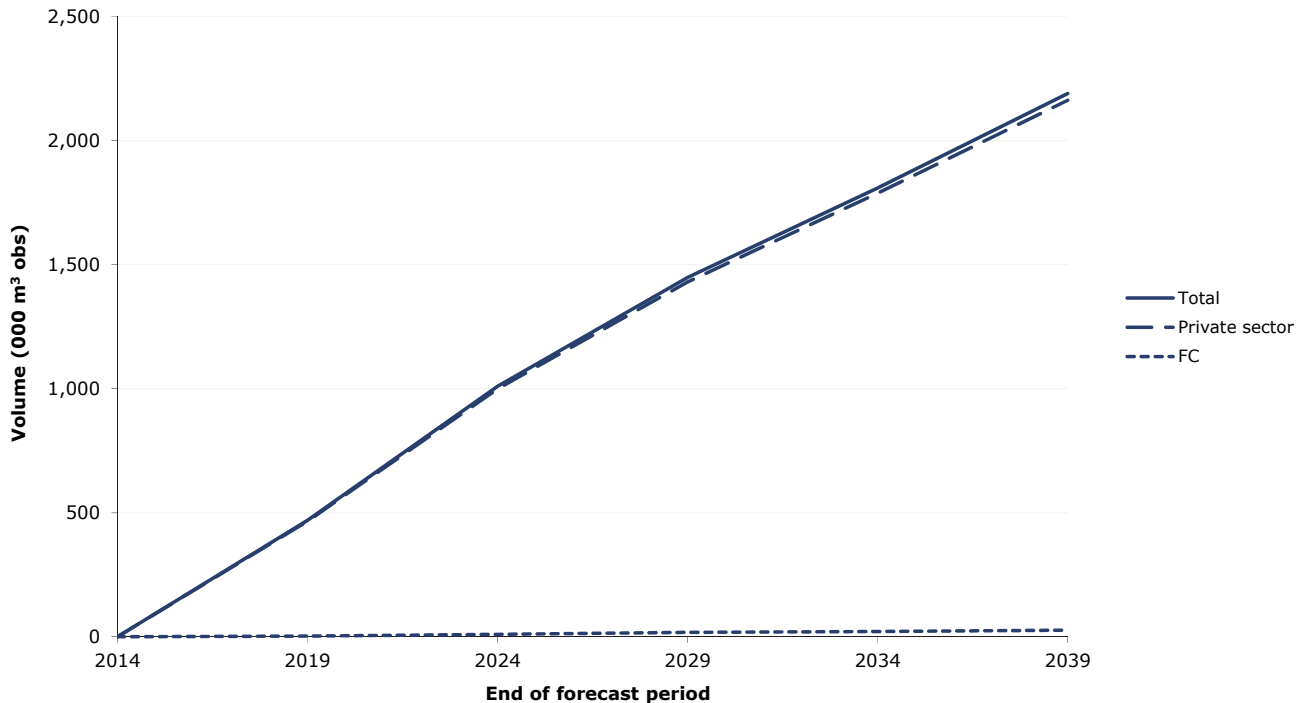
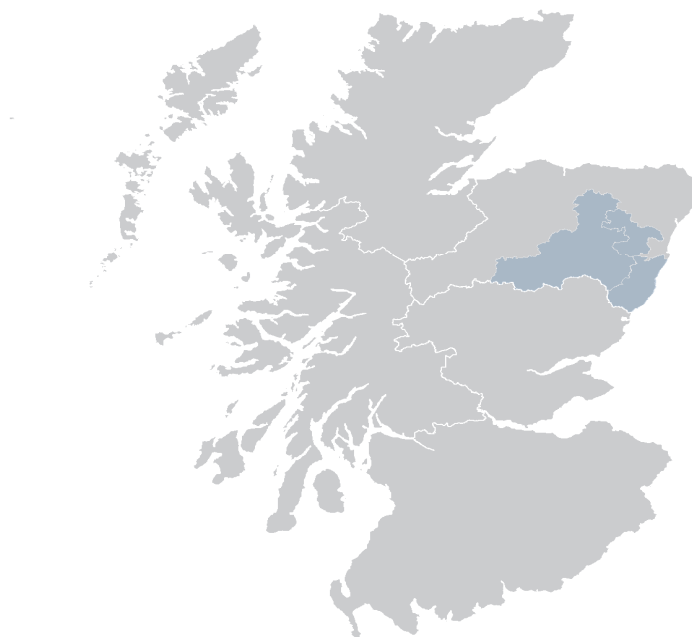


Table 6 Cumulative timber availability over the 25-year forecast – Aberdeenshire (north)

Forecast period	FC	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2015-19	3	466	470
2015-24	11	999	1,009
2015-29	18	1,431	1,448
2015-34	22	1,788	1,809
2015-39	27	2,162	2,189
Hardwood			
2015-19	0	46	46
2015-24	0	78	78
2015-29	0	137	138
2015-34	0	163	163
2015-39	1	201	202
Total			
2015-19	3	508	512
2015-24	11	1,073	1,083
2015-29	18	1,565	1,583
2015-34	22	1,948	1,969
2015-39	28	2,359	2,387

Results for Aberdeenshire southern Committee Areas

Map 3 Committee Areas– Garioch, Kincardine and Mearns, and Marr



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Table 7 Summary of stocked area 31 March 2012 – Aberdeenshire (south)

	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	23.3	46.2	3	69.5
All broadleaves	1.7	15.6	6	17.3
All species	25.0	62.2	2	87.2

Tables A5 and A6 showing the 25-year forecast broken down by time period, top diameter class and principal species groups can be found in the associated spreadsheet.

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Figure 5 Summary of 25-year forecast of annual softwood timber availability – Aberdeenshire (south)

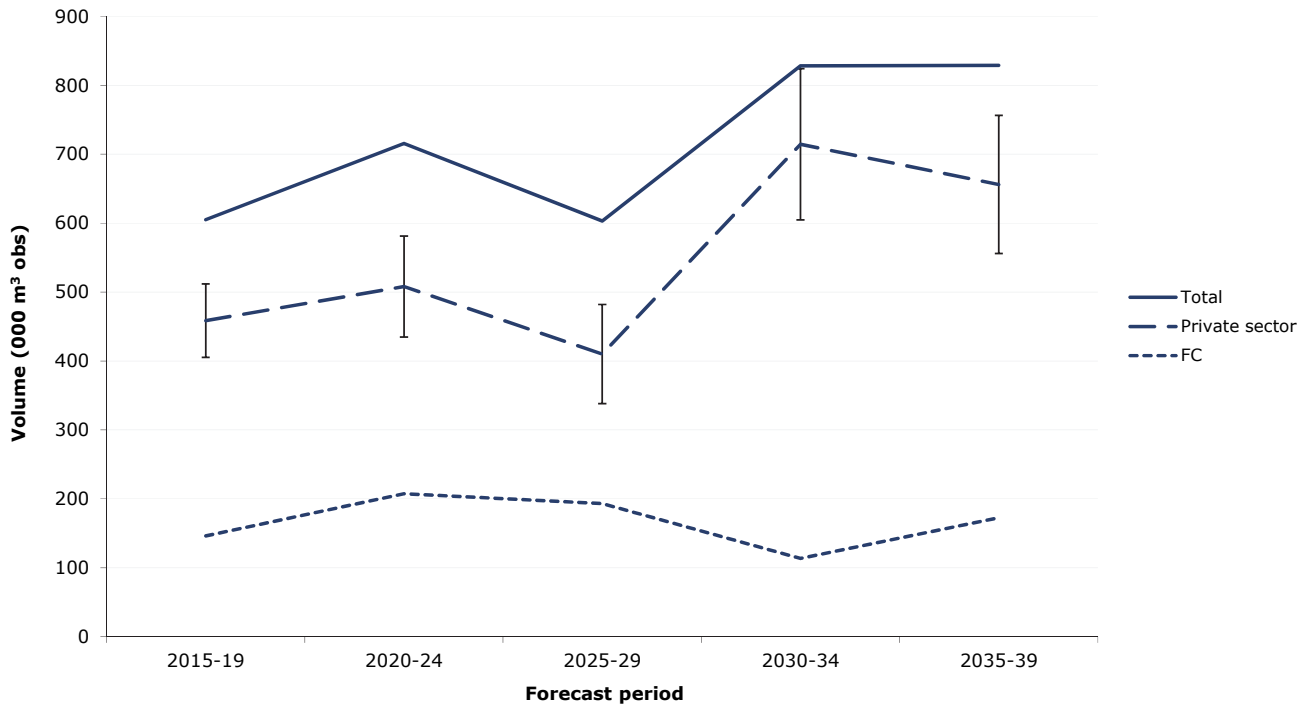


Table 8 Summary of 25-year forecast of average annual timber availability – Aberdeenshire (south)

Forecast period	FC	Private sector		Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2015-19	146	458	12	605
2020-24	207	508	14	715
2025-29	193	410	18	603
2030-34	114	714	15	828
2035-39	173	656	15	829
Hardwood				
2015-19	0	33	38	33
2020-24	1	30	30	31
2025-29	1	32	54	34
2030-34	1	17	17	18
2035-39	2	33	24	35
Total				
2015-19	147	496	11	643
2020-24	208	543	14	752
2025-29	195	447	17	641
2030-34	115	740	15	855
2035-39	175	671	15	846

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Figure 6 Cumulative softwood timber availability over the 25-year forecast – Aberdeenshire (south)

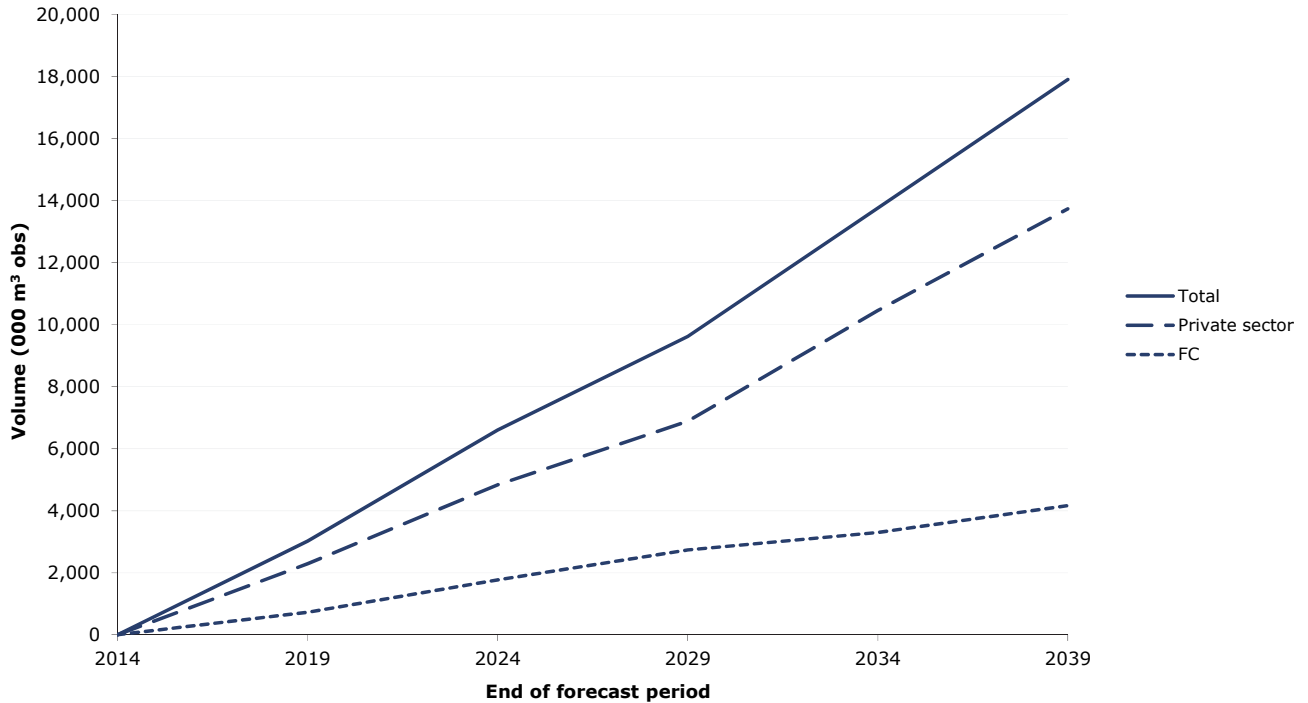


Table 9 Cumulative timber availability over the 25-year forecast – Aberdeenshire (south)

Forecast period	FC	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2015-19	732	2,292	3,024
2015-24	1,769	4,833	6,601
2015-29	2,735	6,882	9,617
2015-34	3,303	10,454	13,756
2015-39	4,166	13,734	17,900
Hardwood			
2015-19	2	163	165
2015-24	7	312	318
2015-29	13	473	487
2015-34	19	556	575
2015-39	29	720	750
Total			
2015-19	734	2,479	3,213
2015-24	1,775	5,196	6,971
2015-29	2,748	7,430	10,179
2015-34	3,322	11,130	14,452
2015-39	4,196	14,487	18,683

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

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.

Official Statistics

This is an Official Statistics publication. More information about Official Statistics and the UK Statistics Authority is available at www.statisticsauthority.gov.uk

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