



25-year projection of timber availability in the Aberdeenshire Council Area (2022)

NFI Forecast Report

Summary

This report provides a detailed picture of the 25-year forecast of timber availability in the Aberdeenshire Council Area. These estimates are a subset of those published as part of the 25-year forecast estimates presented in the National Forest Inventory (NFI) *25-year forecast of softwood timber availability (2022)*. NFI reports are published at [National Forest Inventory - Forest Research](#).

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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 [National Forest Inventory - Forest Research](#).

The methodology and interpretation underlying the forecast in this report are discussed in the NFI report *25-year forecast of softwood timber availability (2022)* and the *50-year forecast of hardwood timber availability (2014)* which can be referred to for the wider Scotland and Great Britain context.

The estimates reported here are based upon field samples assessed between 2015 and 2020, the results of which have been subjected to rigorous data quality assurance procedures.

25-year forecast of timber availability

Refer to the NFI report *25-year forecast of softwood timber availability (2022)* 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 Forestry and Land Scotland (FLS) are derived using the harvesting regimes described in the approved land management plans as of 31 March 2020.

The softwood timber availability estimates for the private sector are based on a scenario which assumes conifers are felled at a target diameter. The full description can be found in Appendix A of the NFI report *25-year forecast of softwood timber availability (2022)* which includes a decision tree showing how felling ages are derived. 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 larger than the target diameter (in this context, they are called 'overdue'), the forecast assumes that a proportion will be felled during the forecast period. The prescriptions for handling the overdue can be found in full in Appendix D of the NFI report *25-year forecast of softwood timber availability (2022)*. 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 20% reduction in the area of conifers on the subsequent rotation of which half is allocated to open space and half is stocked with broadleaved species.

- Land currently clearfelled at the start of the forecast 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:

- 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 is converted to broadleaved species

A full description of the restocking assumptions can be found in Appendix B of the *NFI 25-year forecast of softwood timber availability (2022)*. The same restocking assumptions have been applied to both the FLS 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 convention in this report is to define the year 2021 as starting on 1 April 2020 and ending on 31 March 2021. This convention applies to all forecast years or periods quoted. The forecast reports on five-year cycles of production, starting with 2022-2026.

All volumes are given in cubic metres (m³) overbark standing (obs) and, as in previous forecasts, all volumes available for harvesting include thinnings and fellings. Volumes are presented as average annual volume for each five-year period.

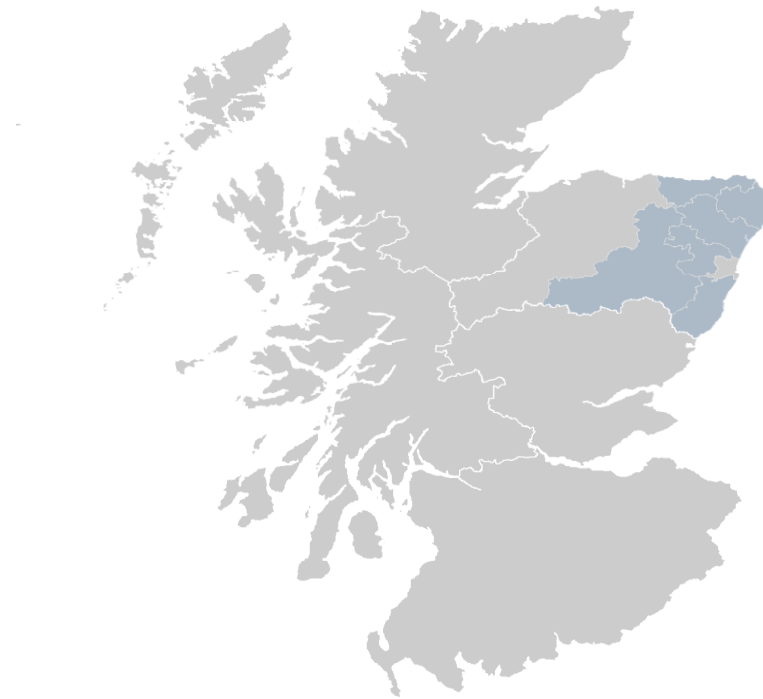
The values in the tables have been independently rounded, so may not add to the totals shown. In some breakdowns of private sector estimates, the estimates in the body of the table may not sum to the quoted total because each individual value, including the total, has been estimated independently.

Sampling standard errors (SE) attached to private sector estimates are expressed in relative terms (%) to the right of the relevant estimate. Due to biological and sampling constraints, for example where there is a very small population of a species within a particular region, the estimates may have a high associated standard error. Since this indicates a high level of uncertainty around those estimates, caution should be used when drawing any conclusions from these values as the estimate may not be representative of the real population. Such estimates have been shown in amber in the tables.

Other than the estimates in Table 1 the estimates are forecast values determined by applying growth and yield models to current assessments.

Results for the Aberdeenshire Council Area

Map 1 Aberdeenshire



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Table 1 Summary of stocked area 31 March 2021 – Aberdeenshire

	FLS	Private sector	Private sector	Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	22.5	51.9	6	74.4
All broadleaves	2.1	25.1	6	27.2
All species	24.6	77.0	4	101.5

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.

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

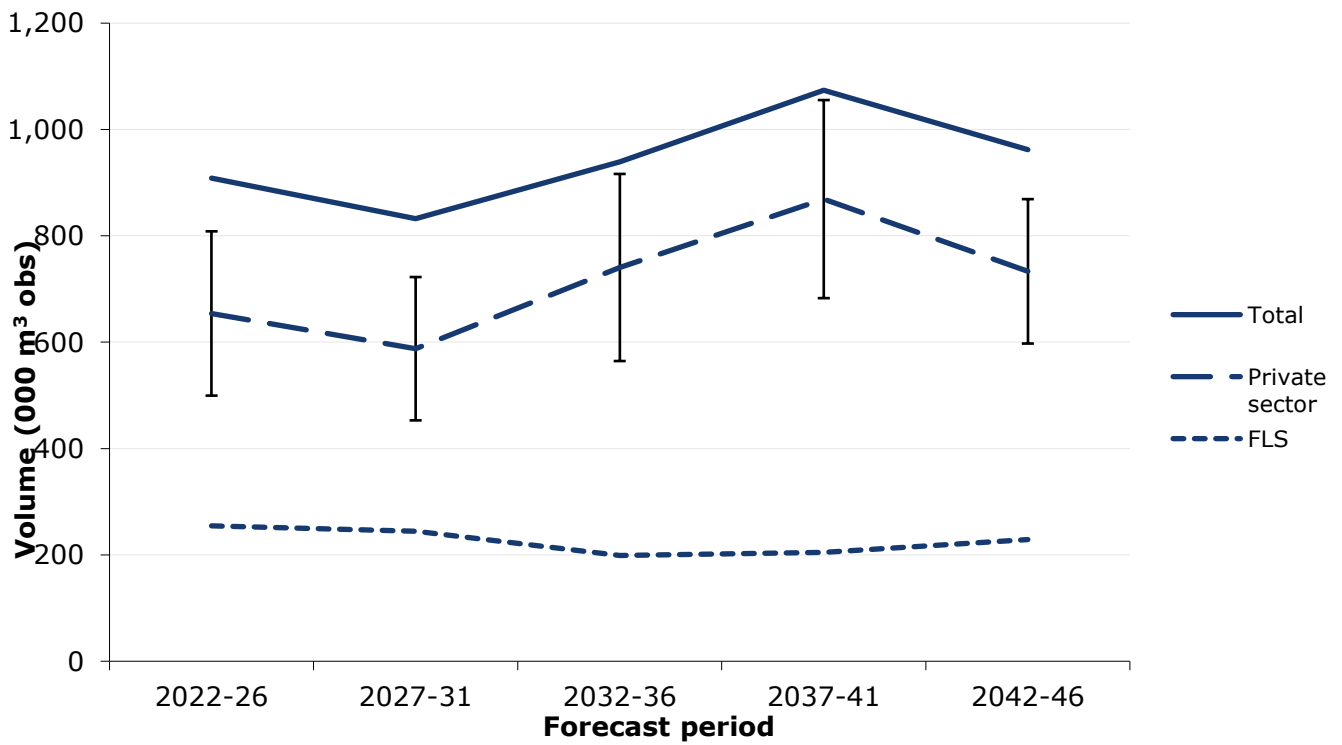


Table 2 Summary of 25-year forecast of average annual timber availability - Aberdeenshire

Forecast period	FLS	Private sector	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2022-26	255	654	24	909
2027-31	245	588	23	832
2032-36	199	740	24	939
2037-41	205	869	21	1,074
2042-46	229	733	19	962
Hardwood				
2022-26	2	45	33	47
2027-31	3	53	34	57
2032-36	3	13	46	16
2037-41	4	48	56	52
2042-46	5	4	22	10
Total				
2022-26	257	700	22	956
2027-31	248	641	21	889
2032-36	202	753	23	955
2037-41	209	920	20	1,129
2042-46	234	737	18	972

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

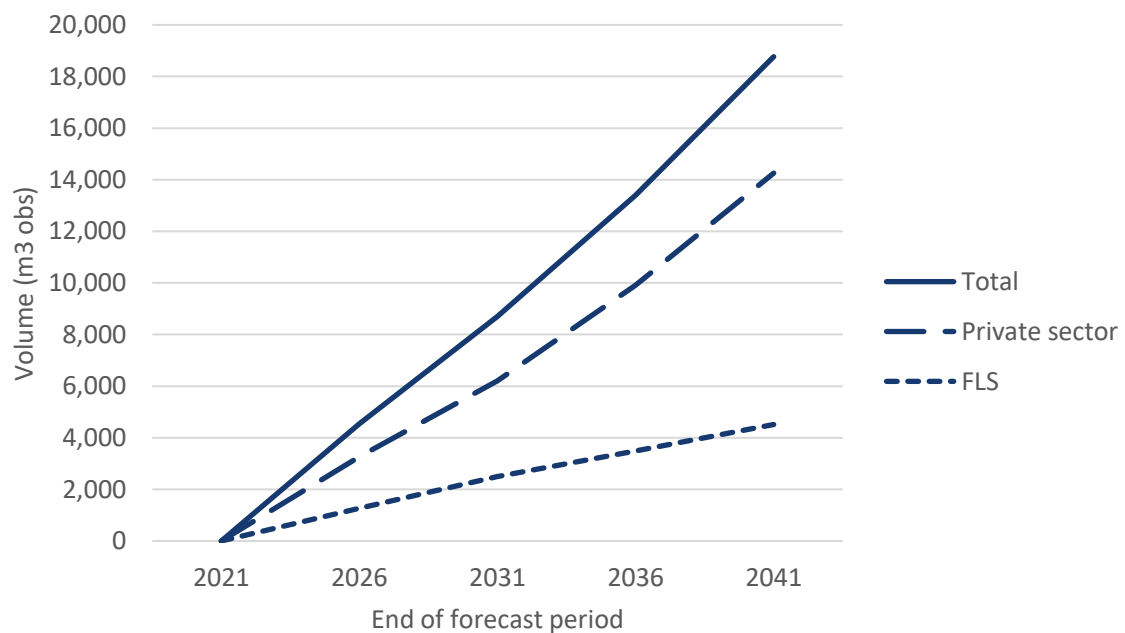
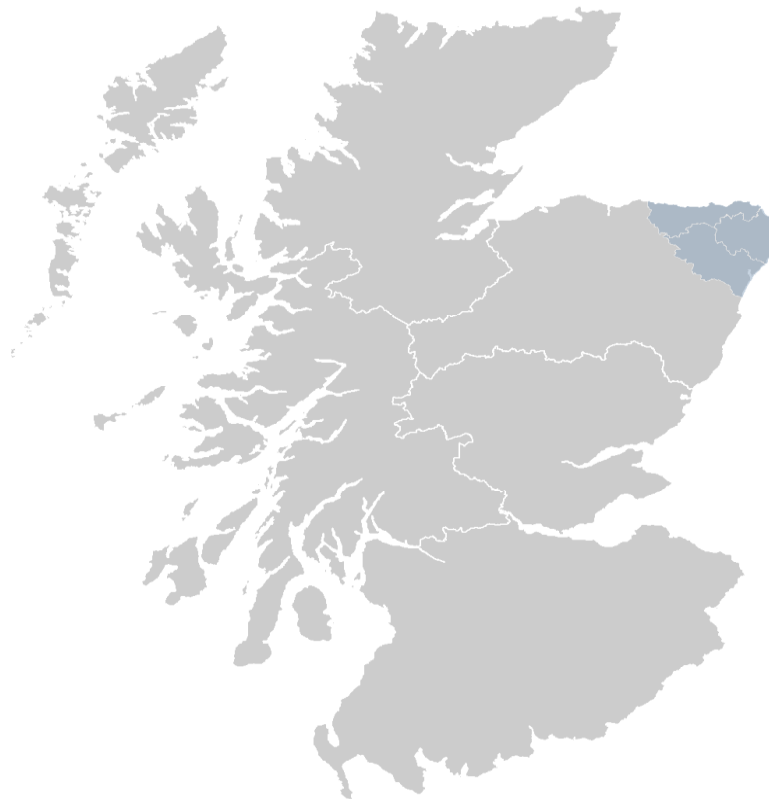


Table 3 Cumulative timber availability over the 25-year forecast - Aberdeenshire

Forecast period	FLS	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2022-26	1,273	3,270	4,543
2022-31	2,496	6,209	8,704
2022-36	3,490	9,911	13,401
2022-41	4,514	14,256	18,770
2022-46	5,658	17,923	23,581
Hardwood			
2022-26	11	226	237
2022-31	27	493	520
2022-36	43	556	599
2022-41	64	793	857
2022-46	90	815	905
Total			
2022-26	1,284	3,498	4,782
2022-31	2,523	6,703	9,225
2022-36	3,533	10,465	13,999
2022-41	4,577	15,065	19,642
2022-46	5,748	18,752	24,501

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 2021 - Aberdeenshire (north)

	FLS	Private sector	Private sector	Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	0.2	8.2	8	8.5
All broadleaves	0.1	6.2	12	6.2
All species	0.3	14.4	4	14.7

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.

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

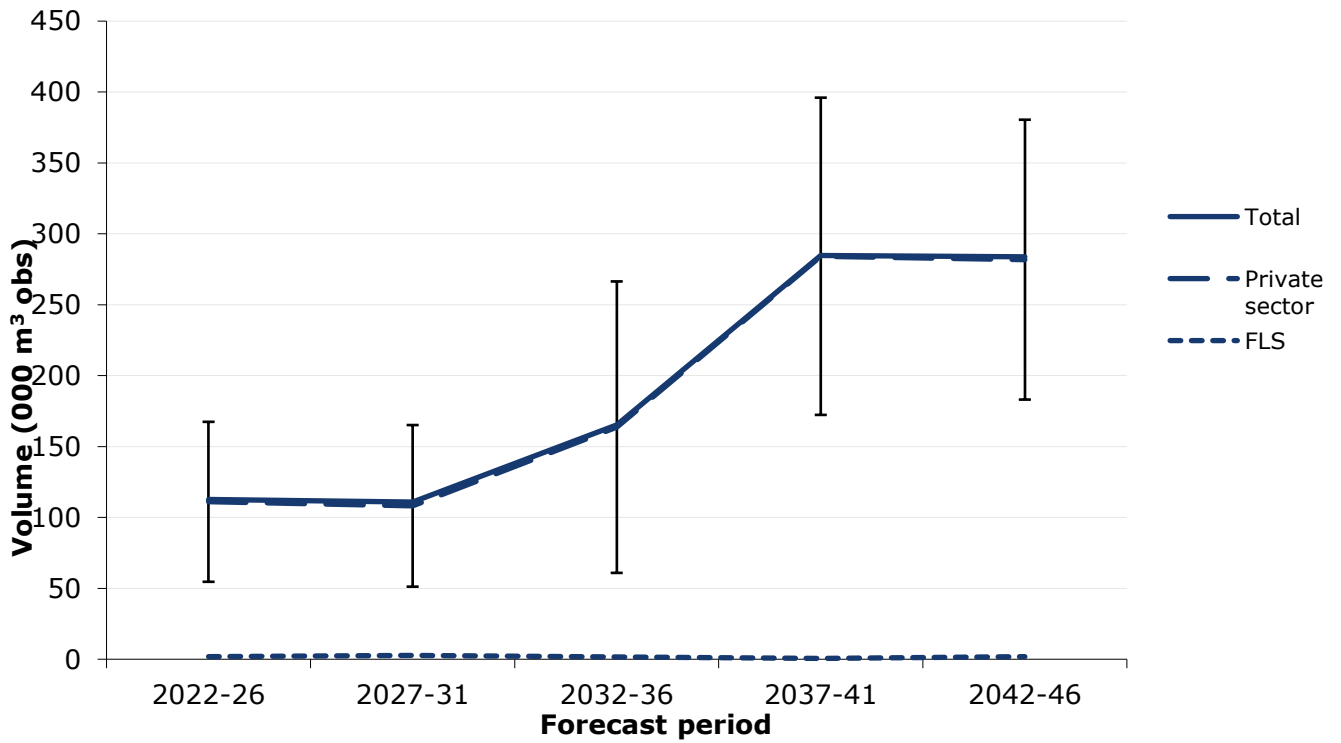


Table 5 Summary of 25-year forecast of average annual timber availability – Aberdeenshire (north)

Forecast period	FLS	Private sector	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2022-26	2	111	51	113
2027-31	3	108	53	111
2032-36	2	164	63	165
2037-41	1	284	39	285
2042-46	2	282	35	284
Hardwood				
2022-26	0	7	70	7
2027-31	0	16	54	16
2032-36	0	5	99	6
2037-41	0	6	55	6
2042-46	0	1	37	1
Total				
2022-26	2	118	48	120
2027-31	3	124	46	127
2032-36	2	169	60	171
2037-41	1	290	39	291
2042-46	2	283	35	285

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

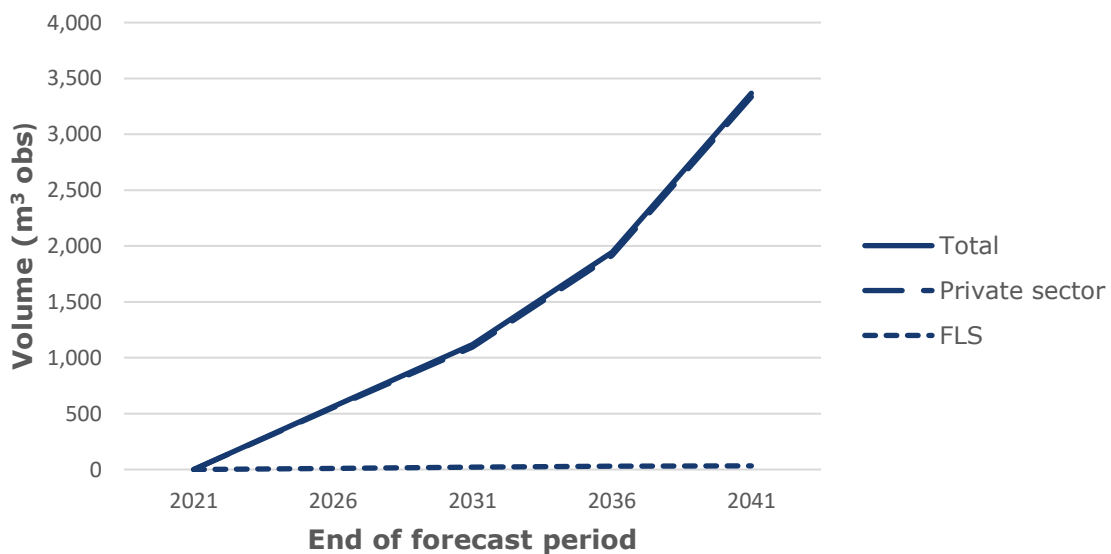


Table 6 Cumulative timber availability over the 25-year forecast – Aberdeenshire (north)

Forecast period	FLS	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2022-26	9	555	564
2022-31	22	1,096	1,118
2022-36	30	1,914	1,944
2022-41	33	3,335	3,368
2022-46	43	4,744	4,787
Hardwood			
2022-26	0	34	34
2022-31	0	113	113
2022-36	1	140	141
2022-41	1	171	172
2022-46	2	177	179
Total			
2022-26	9	589	598
2022-31	23	1,209	1,231
2022-36	31	2,055	2,085
2022-41	34	3,506	3,540
2022-46	45	4,921	4,966

Results for Aberdeenshire southern Committee Areas

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



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Table 7 Summary of stocked area 31 March 2021 – Aberdeenshire (south)

	FLS	Private sector	Private sector	Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	22.2	43.7	6	65.9
All broadleaves	2.0	19.1	6	21.1
All species	24.2	62.7	4	86.9

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.

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

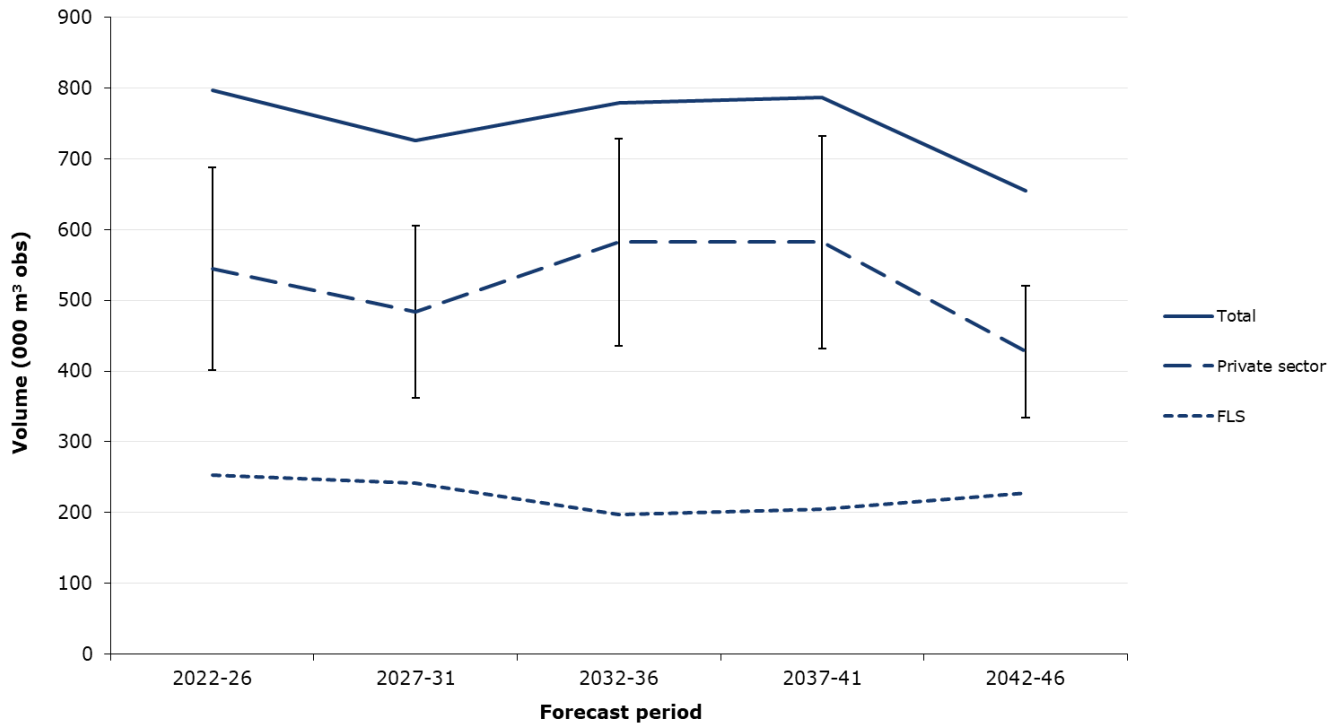


Table 8 Summary of 25-year forecast of average annual timber availability – Aberdeenshire (south)

Forecast period	FLS	Private sector	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	SE%	volume (000 m ³ obs)
Softwood				
2022-26	253	545	26	798
2027-31	242	484	25	726
2032-36	197	582	25	780
2037-41	204	582	26	787
2042-46	227	428	22	655
Hardwood				
2022-26	2	39	37	41
2027-31	3	38	43	41
2032-36	3	8	41	11
2037-41	4	42	65	46
2042-46	5	3	27	8
Total				
2022-26	255	585	25	840
2027-31	245	522	24	767
2032-36	200	589	25	790
2037-41	208	626	24	834
2042-46	232	426	22	657

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

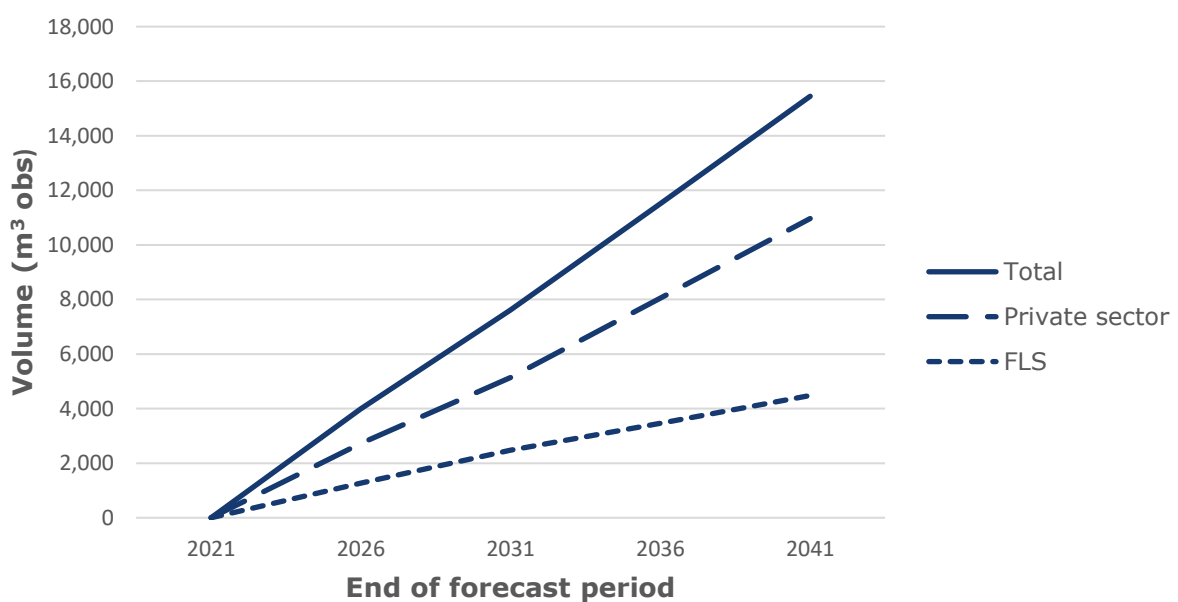


Table 9 Cumulative timber availability over the 25-year forecast – Aberdeenshire (south)

Forecast period	FLS	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2022-26	1,264	2,725	3,989
2022-31	2,473	5,144	7,617
2022-36	3,460	8,055	11,515
2022-41	4,481	10,967	15,448
2022-46	5,616	13,105	18,720
Hardwood			
2022-26	11	196	207
2022-31	27	385	412
2022-36	42	424	466
2022-41	63	634	697
2022-46	88	650	738
Total			
2022-26	1,275	2,923	4,198
2022-31	2,500	5,532	8,032
2022-36	3,503	8,478	11,981
2022-41	4,544	11,606	16,150
2022-46	5,704	13,734	19,438

NFI national reports and papers

This inventory report is one of a series of publications reporting the outputs of the Forestry Commission National Forest Inventory. It forms part of the 25-year forecast of softwood availability series, which includes the following reports:

- *Standing timber volume for coniferous trees in Britain* (April 2012)
- *25-year forecast of standing coniferous volume and increment* (2012)
- *25-year forecast of softwood timber availability* (July 2012)
- *25-year forecast of softwood timber availability* (2014)
- *25-year forecast of softwood timber availability* (2016)
- *25-year forecast of softwood timber availability* (2022)

Supporting technical documentation for these reports is available in:

- National Forest Inventory survey methodology
- National Forest Inventory forecasts methodology overview
- Interpreting National Forest Inventory timber volume forecasts

The woodland map and areas derived from it can be found in:

- National Forest Inventory woodland area statistics (for Great Britain, England, Scotland and Wales).

Full details are available from the [NFI web pages](#).

The National Forest Inventory supports sustainable forest management in Great Britain. For more information see the [UK Forestry Standard](#) and its supporting Guideline

Glossary

A glossary of terms is presented in section 7 of *NFI 25-year forecast of softwood timber availability* (2022).

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