

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

Issued by: National Forest Inventory, Forestry Commission,
231 Corstorphine Road, Edinburgh, EH12 7AT

Date: December 2014

Enquiries: Ben Ditchburn, 0300 067 5064
NFI@forestry.gsi.gov.uk

Statistician: Alan Brewer,
alan.brewer@forestry.gsi.gov.uk

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

Summary

This report provides a detailed picture of the 25-year forecast of timber availability in the Scottish Borders 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.

Contents

Approach	4
25-year forecast of timber availability	5
Results	6
Results for the Scottish Borders Council Area	7
NFI national reports and papers	10
Glossary	10

Maps

Map 1 Scottish Borders	7
-------------------------------------	---

Figures

Figure 1 Summary of 25-year forecast of annual softwood timber availability – Scottish Borders	8
Figure 2 Cumulative softwood timber availability over the 25-year forecast – Scottish Borders	9

Tables

Table 1 Summary of stocked area 31 March 2012 – Scottish Borders	7
Table 2 Summary of 25-year forecast of average annual timber availability – Scottish Borders	8
Table 3 Cumulative timber availability over the 25-year forecast – Scottish Borders	9

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:

NFI Provisional Report

- 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.

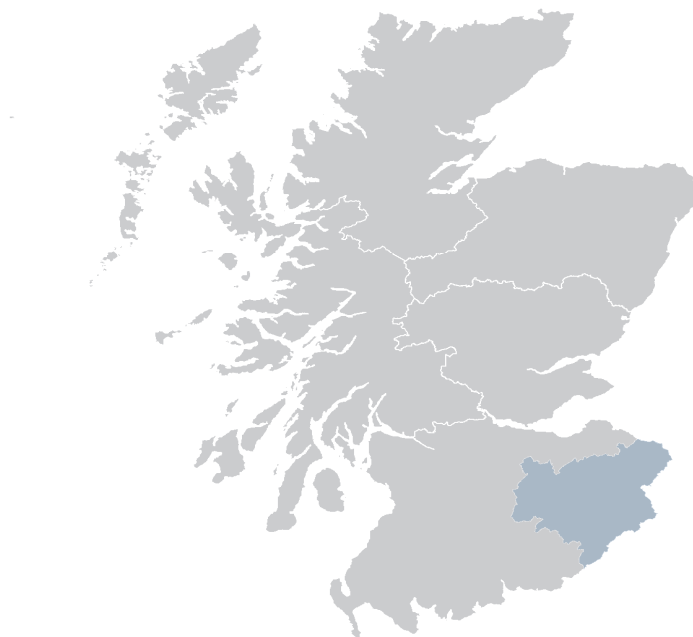
Results

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 Scottish Borders 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 Scottish Borders Council Area

Map 1 Scottish Borders



© Crown copyright and database right [2014]. All rights reserved. Ordnance Survey Licence number [100021242]

Table 1 Summary of stocked area 31 March 2012 – Scottish Borders

	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
All conifers	18.0	45.0	3	63.0
All broadleaves	1.1	15.8	7	16.9
All species	19.1	60.9	2	80.0

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.

NFI Provisional Report

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

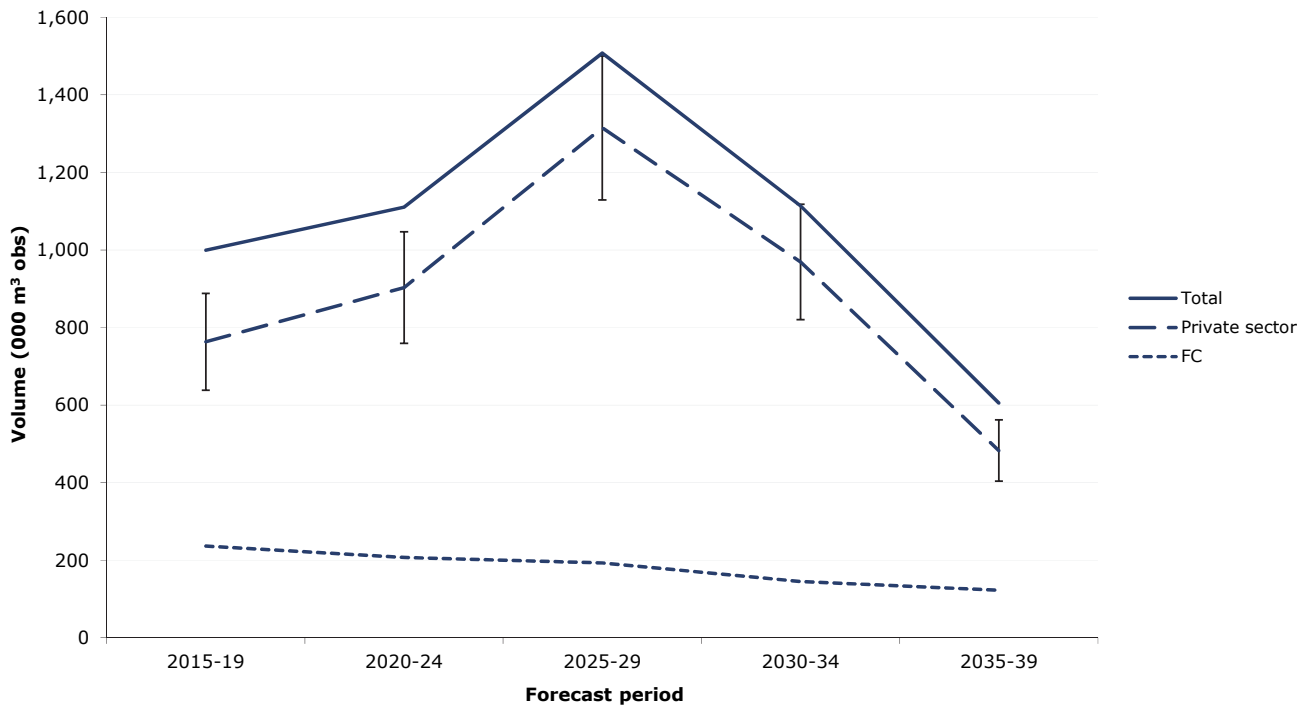


Table 2 Summary of 25-year forecast of average annual timber availability – Scottish Borders

Forecast period	FC	Private sector		Total
	volume (000 m³ obs)	volume (000 m³ obs)	SE%	volume (000 m³ obs)
Softwood				
2015-19	236	763	16	999
2020-24	207	903	16	1,110
2025-29	193	1,315	14	1,508
2030-34	145	969	15	1,114
2035-39	122	483	16	605
Hardwood				
2015-19	0	52	27	52
2020-24	0	42	20	42
2025-29	0	32	15	32
2030-34	0	35	11	35
2035-39	0	39	11	39
Total				
2015-19	236	817	15	1,054
2020-24	207	948	15	1,156
2025-29	193	1,353	14	1,546
2030-34	145	1,008	15	1,153
2035-39	123	523	15	645

NFI Provisional Report

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

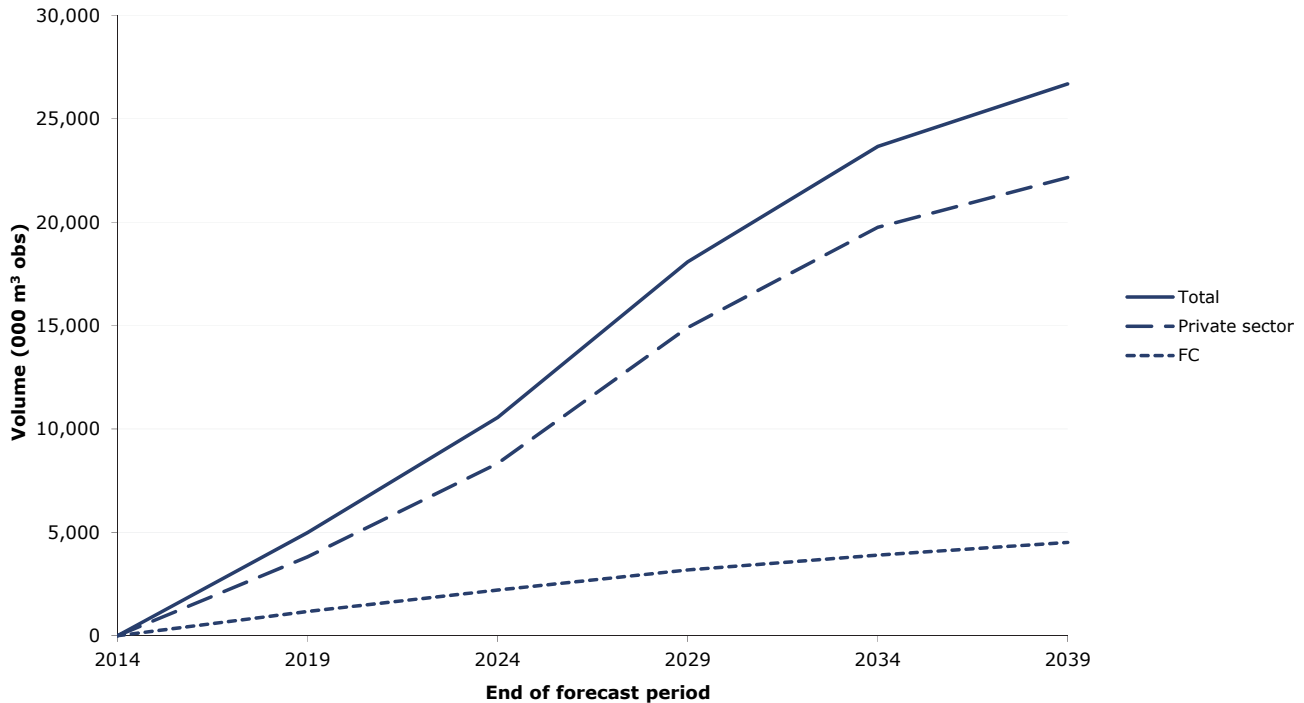


Table 3 Cumulative timber availability over the 25-year forecast – Scottish Borders

Forecast period	FC	Private sector	Total
	volume (000 m ³ obs)	volume (000 m ³ obs)	volume (000 m ³ obs)
Softwood			
2015-19	1,182	3,815	4,997
2015-24	2,218	8,330	10,548
2015-29	3,183	14,904	18,087
2015-34	3,908	19,748	23,656
2015-39	4,520	22,162	26,683
Hardwood			
2015-19	0	258	258
2015-24	0	468	468
2015-29	0	630	630
2015-34	1	806	806
2015-39	1	1,000	1,002
Total			
2015-19	1,182	4,086	5,268
2015-24	2,218	8,828	11,046
2015-29	3,183	15,595	18,778
2015-34	3,908	20,635	24,543
2015-39	4,521	23,249	27,770

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

National Forest Inventory Statistician: Alan Brewer