



THE MISSING MILLIONS: PROTECTING JOBS AND CUTTING CARBON

An analysis of the impact of the 50-year timber availability forecast and 100-year projection, and their implications for Scotland

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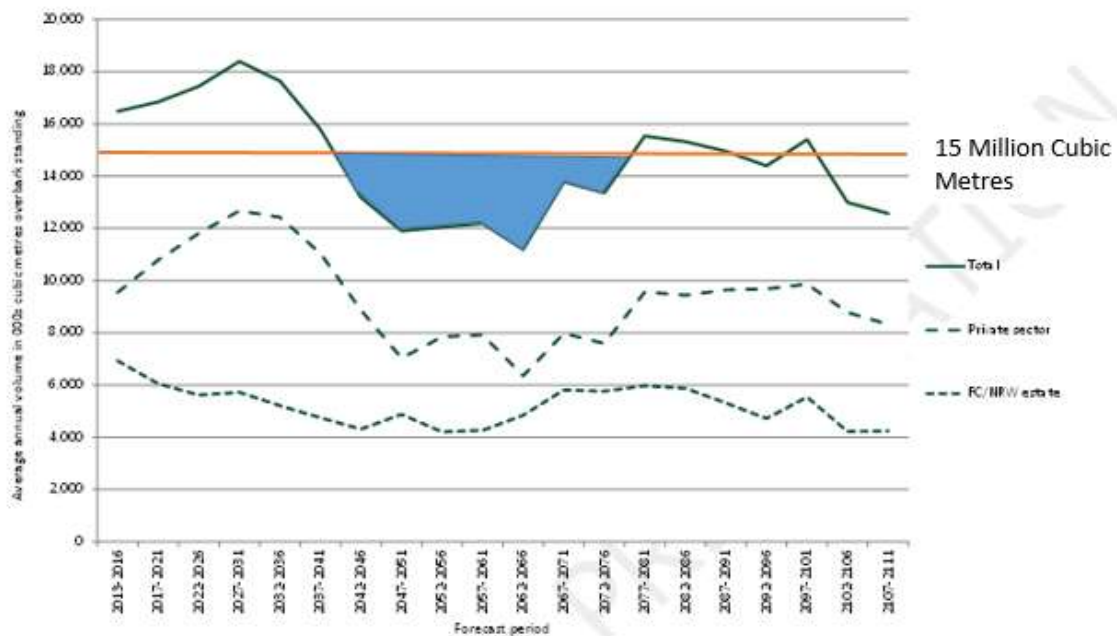
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Executive Summary

- The first 50-year forecast of timber availability, produced by the Forestry Commission, raises serious concerns about a long-term 'trough' in supply.
- Confor, the leading forestry and wood processing trade body, has analysed the report and examined the impact of the 'missing millions' of cubic metres of timber.
- This trough in GB supply – highlighted by the blue area in Figure 1 and explained in detail below – could result in Scotland alone, missing out on more than 1000 jobs and the chance to reduce carbon emissions by 55 million tonnes.
- It would also have a serious impact on investment in Scotland's timber industry, which supports 40,000 jobs and adds £1.7 billion in annual economic value

Figure 1 - 100 year forecast of GB Softwood Availability – the missing millions



Introduction: the 50-year forecast and 100-year projection

FORESTRY and wood processing is a long-term industry. Investment decisions are typically taken decades ahead, not just for short-term considerations. What businesses need more than anything else is guaranteed security of wood supply; that gives them the confidence to invest and to continue to build a successful industry.

As Mike and Pat Glennon, who operate sawmills in North Ayrshire and East Lothian, said in Confor's 2011 report, *Scottish Forestry at The Crossroads*: *"Our business relies on projections of timber 40 years into the future. There must be recognition by politicians that the supply of timber, which sequesters carbon and provides jobs in the rural economy, requires more consistent, long-term thinking."*

Until now, the Forestry Commission has produced 25-year forecasts of softwood timber availability – even though the life cycle of a softwood tree is more like 35-50 years. As the leading industry trade body, *Confor: Promoting Forestry and wood* had requested the production of a 50-year timber forecast.

The publication in late April of the 50-year report – and a 100-year projection - is a very welcome addition to the information available to the sector to help it to plan for the future. For a long-term industry like forestry, a 25-year forecast was insufficient to provide certainty around security of supply and therefore deliver the investment necessary to maintain a buoyant forestry and timber sector.

The 50-year report has been described by the Forestry Commission as positive, with the need for "close collaboration with the forest industries" highlighted to ensure a consistent timber supply is delivered. It shows Scotland's forestry industry has a very strong short-term future, with a significant increase in availability of timber to the mid-2030s.

However, the subsequent drop-off in supply to 2050 and well beyond – as highlighted by a longer 100-year projection carried out as part of the report – is very concerning to everyone in the industry. While this projection is GB-wide, Scotland dominates in both the provision and consumption of the softwood resource and its projected softwood availability relates closely to the 100-year GB projection.

The report, the '50-Year Forecast of Softwood Availability', is part of the National Forest Inventory. (NFI) It can be downloaded from the Forestry Commission website: www.forestry.gov.uk/inventory

Confor's analysis: filling the 'trough'

Confor has carried out an analysis of the 50-year forecast and 100-year projection - and the potential impact of the figures on the industry. This analysis raises serious concerns over the dramatic slump in softwood availability in Scotland (and wider GB) and the consequent impact on both jobs and carbon reduction.

The forecast shows that the availability of softwood peaks at around 12.7 million cubic metres in Scotland in 2030, but then declines rapidly to 9 million cubic metres in 2045 and 8 million in 2050.

Of particular concern is the 'trough' in supply – shown clearly in Figure 1 as part of the 100-year GB projection – for around 30 years from the late 2030s. This drop-off in supply is hugely significant – and highlighted for the first time by this longer-term forecast. If rolling 25-year forecasts had continued to be produced, with no longer-term view taken, this trough would not have been noticed until it was too late to act.

Confor has calculated what this 'trough' might mean in terms of both jobs and impact on carbon emissions. Sustainable economic growth and reducing carbon emissions are both central features of Scottish Government policy and in releasing the forecast, the Forestry Commission highlighted very specifically the significance of forestry in helping to cut carbon emissions: *"Ongoing restocking and new-planting of productive forests will be important in supporting softwood availability from the 2040s onward and meeting Scotland's carbon emissions targets."*

Confor's analysis reveals a genuine threat to jobs – and carbon reduction.

In terms of jobs, forestry currently supports around 40,000 jobs in Scotland and this is likely to increase in the near future while timber supply remains high.

The sawmilling and wood processing industry can only make long-term investments based on long-term security of timber supply. The projected 'boom and bust' of supply will severely restrict this investment. It means that the 'glut' of timber in 15 years' time will not be exploited to its full value potential, and the potential 'trough' identified by the new report is likely to have a devastating impact on investment. It will also make it harder for the industry to recover - despite the graph showing availability rising again around 2070.

For an industry which supports 40,000 jobs and adds £1.7 billion in value to the Scottish economy every year, a failure to fill the trough and flatten out the decline in availability could have very damaging long-term impacts on Scotland's rural economy.

Confor is therefore calling on the Scottish Government to do two things:

- Ensure it meets its existing planting targets of 6,000 hectares of productive forestry each year. The Scottish Government has committed to planting a total of 60,000 hectares from 2012-2022, but is likely to fall short of the target.
- Extend the 6,000 hectares of annual productive planting for another 20 years through to 2042 – to prevent the damaging trough in supply which could otherwise seriously damage investment, reduce jobs and undermine Scotland's world-leading climate change targets

By doing this, and filling the 'trough', Confor has estimated that an additional 55 million tonnes of carbon could be sequestered. Without a commitment to plant 6000ha a year, this

carbon would not be 'saved' and would have a detrimental impact on Scotland's climate change targets.

In addition, Confor believes that **more than 1,000 long-terms jobs in the primary processing industry could be secured** if the target of 6,000 ha of productive planting is maintained through to 2042.

These figures are no leap of faith. The vision outlined in the Scottish Government's Scottish Forestry Strategy (see Footnote 1) is that, by the second half of the 21st century, woodlands will have expanded to around 25 per cent of Scotland's land area – compared to the existing level of 17 per cent (against a European average for forest cover of 35 per cent). An increase of 20 years of commercial forest planting at 6,000 ha per year, would only increase this figure to 18.5 per cent of forest cover.

Methodology and Assumptions

In order to "even-out" the availability of timber during the trough, Confor has assumed a desired level of annual UK softwood availability of 15 million cubic metres (shown by the orange line in Figure 1 below), which equates to a Scottish level of 10.5 million cubic metres per annum. (shown in Table 1, Column A). This figures of 10.5 million cubic metres as a proportion of 15 million cubic metres reflects the fact that Scottish softwood availability is 70 per cent of the total UK availability - based on the forecast data for the next 50 years and then extrapolated into the future. Confor's calculations are based on the blue area shown below the line – the dangerous 'trough' of timber supply.

The assumption of a desired level of 15 million cubic metres is not unreasonable, as current production is around 16 million cubic metres.

Availability vs harvestability – the figures in the Forestry Commission forecast and projection are based on 100 per cent availability of timber. However, business investment will always leave a margin between estimated availability and likely consumption and a proportion of this available timber will be difficult to harvest or remote from points of consumption. The proportion that is not harvestable is estimated at around 20 per cent, based on best estimates from the industry.

Jobs 1 (See Table 1, Column B) – these numbers are based on the Forestry Commission Statistics 2013 – , Employment in primary wood processing for UK Grown Timber. This data was then combined with UK Grown Timber production figures to calculate an approximate employment rate of 700 primary processing jobs per million cubic metres of home-grown timber.

Jobs 2 – In Confor's 2012 report Forestry; 7,000 Green Jobs and low carbon growth, a calculation was made to determine that planting 10,000 hectares of forestry per year would require 250 jobs, in tree planting and establishment. Assuming a figure of 6,000 hectares, this would be an additional 150 jobs. These have not been included in the table, but the methodology used was accepted following an analysis of Confor's report (which said,

overall, 7000 new forestry jobs could be created across the UK) by Defra, the Department for Environment, Food and Rural Affairs:

http://www.confor.org.uk/Upload/Documents/22_Forestry7000greenjobsandlowcarbongrowthJune2012.pdf

Carbon Dioxide Calculation (See Table 1, Column C) – Based on 0.9 tonnes of Carbon Dioxide per cubic metre of timber, in reality this figure would probably be much higher as it does not include soil carbon. It is assumed that planting would not take place on deep peat soils as per current Forestry Commission guidelines.

Cubic metres per hectare (See Table 1, Column D) – The long-term average harvest per hectare is 350 cubic metres. Based on the volumes of timber in the table, this equates to approximately 5,000 hectares (net) of planting. Assuming approximately 20 per cent of unharvestable timber and potential other unknown issues, this could quite reasonably be increased to 6,000ha

Table 1 – Filling the trough

	Forecast	Desired (A)	Shortfall	Jobs (B)	CO2 (C)	Planting (D)
	Millions of cubic metres of softwood timber ANNUAL FIGURES				Million Tonnes	Ha
	Scotland	Scotland	Scotland	Scotland	Scotland	Scotland
2037-41	11 (E)	10.5	0.5	350	0.5	
2042-46	9	10.5	-1.5	-1,050	-1.4	4,286
2047-51	8	10.5	-2.5	-1,750	-2.3	7,143
2052-56	8.5	10.5	-2	-1,400	-1.8	5,714
2057-61	8	10.5	-2.5	-1,750	-2.3	7,143
2062-66	8	10.5	-2.5	-1,750	-2.3	7,143
2067-71	10	10.5	-0.5	-350	-0.5	1,429
2072-76	9.5	10.5	-1	-700	-0.9	2,857
2077-81	10.5	10.5	0	0	0.0	-
TOTALS (E)			-60m m3	(F)	-54 m T	
					Mean	5,102 Ha

(E) Numbers used are annual figures during each five-year period – i.e in 2037-41, the forecast annual softwood availability is 11 million cubic metres per annum – so a total of 55 million for that five-year period.

(F) It is not possible to calculate with any certainty a total number of jobs, based purely on the 60m m3 shortfall, rather it could be claimed that over 1,000 long terms jobs in primary processing industry would be secured until 2066 if the target of 6,000 ha planting is maintained. This is based on the fact that in 2011, the UK produced approximately 10.5 million cubic metres of home-grown timber, which secures approximately 7,500 jobs in the UK timber primary processing industry. This equates to 1 jobs per 1,400 cubic metres of timber, in primary processing alone. The projected short-fall at nearly 2.5 Million cubic metres per annum in Scotland for 20 years (2046 to 2066) could support 1,700 jobs in primary processing, and many more in direct forestry and support industries. Therefore, 1000 jobs is a cautious estimate of the number of jobs that could be supported in the long-term.

Footnote

- (1) The Scottish Forest Strategy was launched by the Scottish Government in 2006 – and can be downloaded here <http://scotland.forestry.gov.uk/images/corporate/pdf/SFS2006fcfc101.pdf>

The strategy says: “We would like to see Scotland’s woodlands increase from 17.1 per cent of our land area to about 25 per cent.” It goes on to state: “Work done for Forestry Commission Scotland by Macaulay Research Consultancy Services indicates that this is feasible.” This figure is repeated on Page 15:

Our vision for Scottish forestry	
<i>By the second half of this century, people are benefiting widely from Scotland’s trees, woodlands and forests, actively engaging with and looking after them for the use and enjoyment of generations to come. The forestry resource has become a central part of our culture, economy and environment.</i>	
2006	Second half of the 21st century
<ul style="list-style-type: none"> • Woodlands comprise 17.1% of Scotland’s land area. 	<ul style="list-style-type: none"> • Woodlands have expanded to around 25% of Scotland’s land area.

In addition, the Scottish Forest Strategy wants to

- Encourage continued investment in timber processing by sustaining a predictable and stable supply of good quality timber.
- Increase the market share of home grown timber

Neither of these aims can be delivered by the existing timber forecast.