

Wood supply

Content

This document presents additional figures that were elaborated for the monitoring of sustainable wood supply in the 2018 Raw Materials Scoreboard. The final version of the Scoreboard indicator elaborates on a version of Figure 1, while Figure 2 was not included in order to simplify the analysis.

This document also provides more details about the methodological changes in the indicator as compared to the 2016 version of the Scoreboard and about the alternative data options that were assessed and considered.

Novelties from the 2016 version of the Scoreboard

- Two options were proposed to monitor the sustainability of wood supply in the EU: **(1) Forest growing stock** and **(2) forest certification** (based on the Programme for the Endorsement of Forest Certification (PEFC) and the Forest Stewardship Council (FSC)).
- **Forest growing stock** was proposed as a placeholder for future data on felling rates, which were the data presented in the 2016 Scoreboard, and for which there is not yet a data update available. Similarly to the data on felling rates, changes in growing stocks monitor the existence/inexistence of overexploitation of wood: if felling rates are below the net increment of the forest, growing stocks increase and vice versa. This indicator is among the set of criteria and indicators for sustainable forest management reported by FAO and Forest Europe¹ (indicator 1.2). As a limitation, growing stocks provide information on the potential wood supply, but only indirectly on the wood volumes entering to the market.
- **Forest certification** was proposed as complementary information on sustainable wood supply, providing a comparison of certification levels in the EU and other world regions.

Key points

- The EU forest growing stock has been increasing since 1990, on an average rate of 1.31% (293 million m³ per year).
- This increase has been possible because in almost all EU Member States wood fellings were below the net wood increment.
- Forest certification levels in the EU are higher than in any other region of the world. Forest certification is low in several EU countries, partly due to certification costs and administrative burdens.

¹ Forest Europe Sustainable forest management criteria and indicators: <http://foresteurope.org>.

Facts and figures

- Figure 1 shows the forest growing stock in the EU-28 Member States for the years 1990, 2000, 2005, 2010 and 2015. In order to facilitate comparability among countries, growing stock values are presented relative to country areas (i.e. m³ of growing stock per hectare).
- The figure demonstrates that over the last 25 years wood growing stocks have been increasing in almost all Member States' forests, resulting in a total EU-28 average increasing rate of about 1.31% per year (293 million m³).
- In 2015, the EU-28 had a total of 26.5 billion m³ of growing stock, which is equivalent to a density of 167 m³ per forest hectare. This is significantly higher than the world average of 129 m³/ha².
- The observed growing stock accumulation results from a positive balance between the net annual increment wood volume produced by the EU forests (due to growth and forest expansion) and the annual amount of wood removed from forests due to direct human activity and losses due to natural causes. Keeping wood removals below forest growth results from a combination of several factors, such as market conditions, increased awareness of forest functions and progress towards more sustainable management of EU forests³.

² FAO, 2015, 'Global Forest Resources Assessment'.

³ Forest Europe, 2015, 'State of Europe's Forests 2015'.

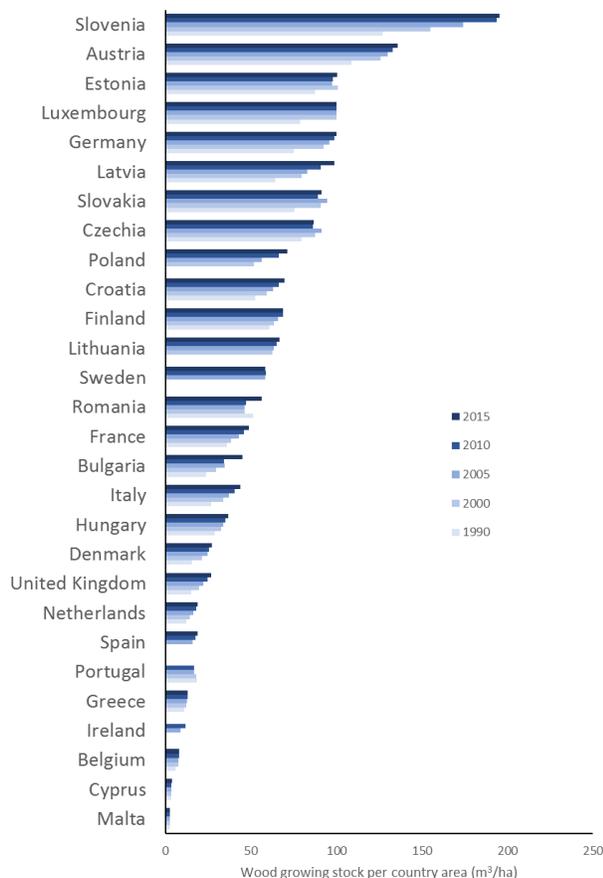


Figure 1: Forest growing stock per ha (country area) (EU-28, 1990-2015)⁴.

- Figure 2 shows the level of forest certification in EU-28 and other world regions based on the two main certification schemes that are implemented internationally. This includes the ‘Programme for the Endorsement of Forest Certification’ (PEFC) and the ‘Forest Stewardship Council’ (FSC) certification schemes.
- The figure highlights the EU efforts on certification. It shows that although certification levels are moderate (and low in some EU countries), the EU-28 has the highest forest certification rates compared to the rest of the world considering both certification schemes. Low certification rates in some EU countries are due to, among other causes, certification costs and administrative burdens.
- Conclusions from the data on certified areas should be drawn with caution, since while areas that are certified ensure sustainable forest management, not certified areas do not always mean unsustainable forest management. Also, data for the two certification schemes cannot be added up: some forests are only certified under one scheme, others under the other and sometimes

⁴ Source: JRC elaboration based on data from FAO 2015 Global Forest Resources Assessment, Forest Europe 2015 ‘State of Europe’s Forests 2015’ and from the EEA. See methodological notes.

even under both. This prevents from developing an indicator considering both schemes aggregated.

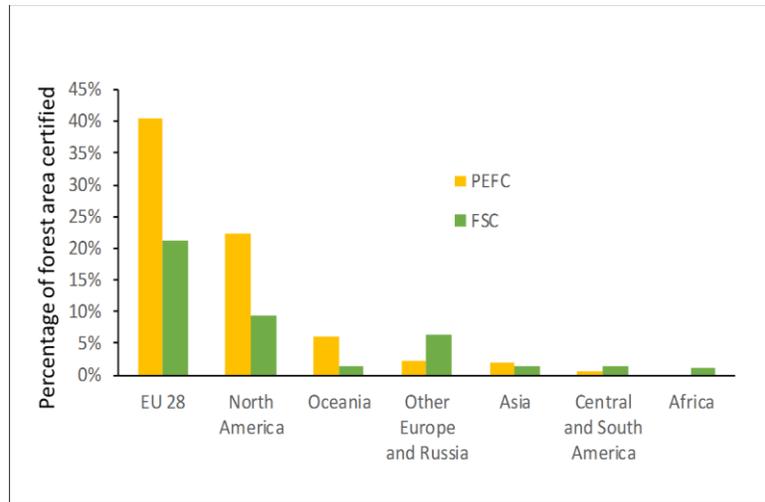


Figure 2: Percentage of forest area certified by the schemes PEFC and FSC (EU-28 and other world regions, 2015)⁵.

Methodological notes

Figure 1

- **Name of indicator:** forest growing stock per country area.
- **Organization (data provider):** FAO 2015 Global Forest Resources Assessment, Forest Europe 2015 ‘State of Europe’s Forests 2015’ (growing stock); and the European Environment Agency (for country area).
- **Website (URL):** <https://foresteurope.org/state-europes-forests-2015-report/> (growing stocks); <https://www.eea.europa.eu/data-and-maps/indicators/forest-growing-stock-increment-and-fellings-3/assessment> (country area).
- **Definition, description of data:** according to the FAO definition⁶ growing stock is the “volume over bark of all living trees with a minimum diameter of 10 cm at breast height (or above buttress if these are higher). It includes the stem from ground level up to a top diameter of 0 cm, excluding branches”. Data are based on country reports using common methodologies and templates.
- **Update frequency:** every four years (growing stocks and related forest indicators).
- **Data format:** online, downloadable in xls and pdf.

⁵ Source: JRC elaboration based on 2015 statistics from PEFC and FSC and forest area data from the FAO 2015 Global Forest Resources Assessment. See methodological notes.

⁶ FAO, 2012, The Forest Resources Assessment (FRA) Working Paper – FRA 2015 Terms and Definitions.

- **Geographic coverage:** EU-28 countries. The data source is based on data with a global coverage.
- **JRC processing methodology for the indicator:** data on growing stocks have been normalised considering the country area. This normalisation was chosen instead of the correspondent annual forest area because the changes in country forest area from one year to the other would hide the real changes in the growing stock.

Figure 2

- **Name of indicator:** forest area certified (%).
- **Organization (data provider):** ‘Programme for the Endorsement of Forest Certification’ (PEFC) and the ‘Forest Stewardship Council’ (FSC) certification schemes; FAO 2015 Global Forest Resources Assessment (forest areas).
- **Website (URL):** <https://www.pefc.org/about-pefc/who-we-are/facts-a-figures> (PEFC); <https://ic.fsc.org/en/facts-and-figures> (FSC); <http://www.fao.org/forest-resources-assessment/en/> (FAO 2015 Global Forest Resources Assessment).
- **Definition, description of data:** certified areas adhering to each of the certification schemes considered.
- **Update frequency:** annual.
- **Data format:** online, available in pdf format.
- **Geographic coverage:** EU-28, global.
- **JRC processing methodology for the indicator:** percentage certification rates have been calculated based on 2015 certified areas from PEFC and FSC and total 2015 forest areas as reported by the FAO 2015 Global Forest Resources Assessment).