

D-3: Forests and other wooded land

1) General description	2
1.1) Brief definition	2
1.2) Units of measurement	2
1.3) Context	2
2) Relevance for environmental policy	2
2.1) Purpose	2
2.2) Issue	2
2.3) International agreements and targets	3
<i>a) Global level</i>	3
<i>b) Subregional level</i>	3
3) Methodology and guidelines	3
3.1) Data collection and calculations	3
3.2) Internationally agreed methodologies and standards	4
4) Data sources and reporting	4
5) References at the international level	4

1) General description

1.1) *Brief definition*

The indicator shows the total area of forests and other wooded land, the ratio of this area to the country's total area, and the share of forest areas which are natural and planted, designated for production, as well as designated for the protection of soil and water, ecosystem services and biodiversity.

1.2) *Units of measurement*

The forest areas are measured in thousands of square kilometres, or in thousands of hectares; shares of forests and wooded land, and the share of different categories are provided as a percentage.

1.3) *Context*

Relation to other indicators from the Guidelines - This indicator does not relate to other indicators.

2) Relevance for environmental policy

2.1) *Purpose*

The indicator provides a measure of the state of forests and other wooded lands in a country and shows trends in its uses and its protection.

2.2) *Issue*

Forests are among the most diverse and widespread ecosystems on earth and have many functions. They provide timber and other products; deliver recreation benefits and ecosystem services, including regulation of soil and water regimes; are reservoirs for biodiversity; and act as carbon dioxide sinks. Overexploitation, fragmentation, environmental degradation and conversion into other types of land use threaten many forest resources. The

impact of human activities on natural forest growth and regeneration is cause for concern. The indicator gives insights into quantitative and qualitative aspects of the use of forest resources and its protection.

2.3) International agreements and targets

a) Global level:

Convention on International Trade in Endangered Species of Fauna and Flora (CITES); Convention on the Conservation of Wetlands of International Importance (Ramsar Convention); Convention on Biological Diversity (United Nations CBD); Convention on Climate Change; Convention to Combat Desertification. The United Nations Conference on Environment and Development adopted the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (the Forest Principles). Under the CBD, a Strategic Plan for Biodiversity 2011-2020 was adopted which requires that by 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced (Target 5).

b) Subregional level:

The Environmental Strategy of countries of South-Eastern and Eastern Europe, Caucasus and Central Asia underlines the importance of implementing reforestation projects, as well as the need to improve systems to protect forests from overlogging, illegal cutting and forest fires and to restore systems for regular forest management. In 2010, the European Commission has adopted a Green Paper On Forest Protection and Information in the European Union (EU): Preparing forests for climate change. In a broader sense, the EU Council has endorsed in 2011 the EU Biodiversity Strategy until 2020, which is the EU's key instrument for reaching the new EU target for the protection of biodiversity in 2020: the EU intends to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.

3) Methodology and guidelines

3.1) Data collection and calculations

In data collection and calculations, relevant definitions established by the Food and Agriculture Organization of the United Nations (FAO) for its Global Forest Resources Assessment (2015) and by the Ministerial Conference on the Protection of Forests in Europe

(MCPFE) should be used. Forest is defined as land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use. Out of these areas classified as forest, areas which are which are natural or planted forest, areas designated for production, as well as areas designated for the protection of soil and water, ecosystem services and biodiversity can be distinguished. Definitions of designations of forest areas can be found in the glossary to this indicator.

The data are generally contained in national forest inventories and obtained by sampling ground surveys, cadastral surveys, remote sensing or a combination of these. The frequency of evaluation is generally five years.

The share of forests in country area can be calculated using the formula:

$$\text{Share of forests in country area (\%)} = \frac{\text{(Total forest area in thousands of hectares or km}^2 \text{ / the total area of the country in thousands of hectares or km}^2\text{)}}{100}$$

3.2) Internationally agreed methodologies and standards

The FAO Global Forest Resource Assessment (2015); The MCPFE guiding principles for use of the Pan-European Indicators for Sustainable Forest Management; The EU has introduced a detailed procedure for monitoring of forests (see Regulation No. 2152/2003).

4) Data sources and reporting

In countries of South-Eastern and Eastern Europe, Caucasus and Central Asia, agencies or ministries of forestry collect the relevant data and submit them to the FAOSTAT global multilingual database and the electronic database of the Expert Committee on Temperate and Boreal Forest Resources (TBFRA) of FAO/ECE. Data on the area of forests and their state are published in several countries in annual environmental reports, in national statistical yearbooks or in specialized yearbooks.

5) References at the international level

- United Nations Convention on Biological Diversity: <http://www.cbd.int/>;
- United Nations CBD Strategic Plan for Biodiversity 2011-2020; <http://www.cbd.int/sp/elements>

- Temperate and Boreal Forest Resources Assessment of 2000 ECE/FAO. Terms and definitions. United Nations. New York and Geneva, July 1997;
- Forestry Resources of Europe, CIS, North America, Australia, Japan, and New Zealand (of industrialized countries of temperate/boreal zones). ECE/FAO contribution to the Global Forest Resource Assessment of 2000. Keynote speech. United Nations. New York and Geneva, 2000. (ECE/TIM/SP/17);
- Global Forest Resource Assessment: Updated version, 2005. Technical description of national reporting tables in the framework of OLR-2005. Forest Resource Assessment Program. Working paper No.81. FAO. Rome, 2004;
- Global Forest Resources Assessment 2010, FAO Forestry Paper 163: <http://www.fao.org/forestry/fra/fra2010/en/>;
- MCPFE Liaison Unit VIENNA. Background information for improved Pan-European indicators for sustainable forest management - MCPFE expert level meeting 7 – 8 October 2002, Vienna, Austria;
- Sustainable Forest Management Systems. Application of the pan-European criteria for sustainable forest management (Portuguese Standard, NP4406 2003) MCPFE, 2003;
- International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests;
- Regulation (EC) No 2152/2003 of the European Parliament and of the Council of 17 November 2003 concerning monitoring of forests and environmental interaction in the Community;
- Green Paper On Forest Protection and Information in the EU: Preparing forests for climate change SEC(2010)163 final: [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0066:FIN:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0066:FIN:EN:PDF;);
- Our life insurance, our natural capital: an EU biodiversity strategy to 2020; SEC(2011) 541 final: <http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm>;
- EU Forests and forest related policies: http://ec.europa.eu/environment/forests/home_en.htm;
- ECE Forests: <http://www.unece.org/forests.html>;
- FAOSTAT: <http://faostat.fao.org/faostat/collections?subset=forestry>;
- Forest Europe – Ministerial Conference: <http://www.mcpfe.org/>;
- ICP Forests: the International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests: <http://www.icp-forests.org/Index.htm>;

- United Nations Forum on Forests: <http://www.un.org/esa/forests/>