



The updated pan-european **indicators for sustainable forest management**

Criteria and indicators (C&I) are a basic tool in monitoring, assessing, implementing and promoting sustainable forest management (SFM) by providing relevant information for policy makers in forestry and the other sectors, and to the broad public. C&I can be considered an inevitable part of SFM definition.

In Europe, a first set of indicators of SFM was adopted at the **3rd Ministerial Conference on the Protection of Forests in Europe in Lisbon in 1998**. In the following years it was reviewed and an improved set of indicators was endorsed at the **4th Ministerial Conference, in Vienna in 2003**.

However, the view on the role of C&I is constantly changing. To some extent this is due to practical experiences with their use, partially it reflects new threats and pressures affecting the forests, such as climate change or biodiversity loss, and new demands for forest-related information coming from other sectors, for example, wood industry and energy.

Recognizing the need, the **FOREST EUROPE** signatories decided to revise the pan-European set of indicators for SFM. After several consultations of FOREST EUROPE signatories and observers, experts and representatives of stakeholders as well as other sectors and processes related to, or interested in the C&I, a new set of Updated pan-European Indicators was elaborated. This updated set was adopted in July 2015 by Expert Level Meeting for consideration by the ministers responsible for forests in Europe, who endorsed it at the **7th FOREST EUROPE Ministerial Conference in Madrid in October 2015**.

What is new in the updated set?

- 1) Structure:** The structure of the set has been modified in order to improve the linkage between the qualitative and quantitative indicators. This change aims to align better the forest policies, actions and measures to which qualitative indicators refer to, with the related quantitative information.
- 2) New indicators:** The updated set includes 3 new quantitative indicators - *forest land degradation*, *forest fragmentation* (which replaced *forest landscape pattern*) and *common forest bird species*.
- 3) Relation to other areas and sectors:** Some changes have been made in order to improve the information related to other sectors, such as climate change mitigation, the value of and payment for forest ecosystem services, certification schemes and illegal logging.

For instance, in order to acknowledge the role of forests and forest products in adaptation to and mitigation of climate change, information about carbon stock changes in forest biomass and forest soils has been improved, and information related to harvested wood products has been incorporated in the indicator related to carbon stock in forests.

- 4) Changes in wording:** The names and/or descriptions of some indicators have been modified to reflect in a clearer way the relation between the name/definition of the indicator and the information it provides.

More information at

<http://www.foresteurope.org/content/updating-pan-european-set-indicators-sfm>

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The 2015 updated pan-European set of indicators for SFM is composed of

34 quantitative indicators & **11** qualitative indicators

(in total 45 indicators).

The quantitative indicators provide numeric information on the current status of European forests and their changes, as well as the progress towards sustainable forest management. The changes reported in the qualitative indicators over time reflect the responses of policy-makers through different means (policies, institutions, regulatory and financial instruments, information) to the challenges and opportunities related to forests and SFM.

According to the new structure of the updated set, 5 general qualitative indicators (not related to any specific criterion) define the overarching policy framework for SFM; and 6 other qualitative indicators address the policies, institutions and instruments specific to the policy area of each particular criterion.

Considering the information provided by these indicators as a whole, the analysis enables a comprehensive understanding of the state of forests and the implementation of sustainable forest management in the pan-European region, its sub-regions and countries.



Updated set of Pan-European Indicators for SFM 2015

Forest policy and governance

1. National Forest Programmes or equivalent
2. Institutional frameworks
3. Legal/regulatory framework: National (and/or Sub-National) and International commitments
4. Financial and economic instruments
5. Information and communication

Criterion 1: Forest Resources & Carbon Cycles

- C.1 Related policies, institutions & instruments
 - 1.1 Forest area
 - 1.2 Growing stock
 - 1.3 Age structure &/or diameter distribution
 - 1.4 Forest carbon

Criterion 2: Forest Health and Vitality

- C.2 Related policies, institutions & instruments
 - 2.1 Deposition & concentration of air pollutants
 - 2.2 Soil condition
 - 2.3 Defoliation
 - 2.4 Forest damage
 - 2.5 Forest land degradation

Criterion 3: Productive Functions

- C.3 Related policies, institutions & instruments
 - 3.1 Increment and fellingings
 - 3.2 Roundwood
 - 3.3 Non-wood goods
 - 3.4 Services

Criterion 4: Biological Diversity

- C.4 Related policies, institutions & instruments
 - 4.1 Diversity of tree species
 - 4.2 Regeneration
 - 4.3 Naturalness
 - 4.4 Introduced tree species
 - 4.5 Deadwood
 - 4.6 Genetic resources
 - 4.7 Forest fragmentation
 - 4.8 Threatened forest species
 - 4.9 Protected forests
 - 4.10 Common forest bird species

Criterion 5: Protective Functions

- C.5 Related policies, institutions and instruments
 - 5.1 Protective forests – soil, water and other ecosystem functions - infrastructure and managed natural resources

Criterion 6: Socio-economic

- C.6 Related policies, institutions & instruments
 - 6.1 Forest holdings
 - 6.2 Contribution of forest sector to GDP
 - 6.3 Net revenue
 - 6.4 Investments in forests and forestry
 - 6.5 Forest sector workforce
 - 6.6 Occupational safety and health
 - 6.7 Wood consumption
 - 6.8 Trade in wood
 - 6.9 Wood energy
 - 6.10 Recreation in forests