# Austria's Forests 2017

## Information based on the Austrian Criteria and Key Indicators for Sustainable Forest Management

These criteria and indicators were developed for Austria on the basis of the Pan-European Criteria and Indicators for Sustainable Forest Management (SFM)[1] to illustrate to what extent the objective of sustainable forest management is being achieved. These criteria and indicators serve also as a basis for the national and international reporting.

Criteria describe different aspects of sustainable forest management. With the help of the indicators the changes over time can be measured and assessed for each criterion.

The following information gives an overview on headline issues and key indicators related to forests and forestry in Austria. The whole set is available at www.walddialog.at

**Criteria:**

**1: Contribution of Austrian forests to climate protection**

**2: Health and vitality of Austrian forests**

**3: Productivity and economic aspects of Austrian forests**

**4: Biodiversity in Austria's forests**

**5: Protective functions of Austria's forests**

**6: Social and economic aspects of Austrian forests**

**7: Austria's international responsibility for sustainable forest management**

[1] The Pan-European Criteria and Indicators for SFM were developed in the framework of the Ministerial Conference on the Protection of Forests in Europe. For more detailed information, see www.foresteurope.org

## A country rich in forests

### Indicator 1.1 – Forest area

In Austria, forest land has increased for decades. It covers about 4 million hectares, a figure which corresponds to 47.6% of the whole Austrian territory and exceeds the EU average of 42%.

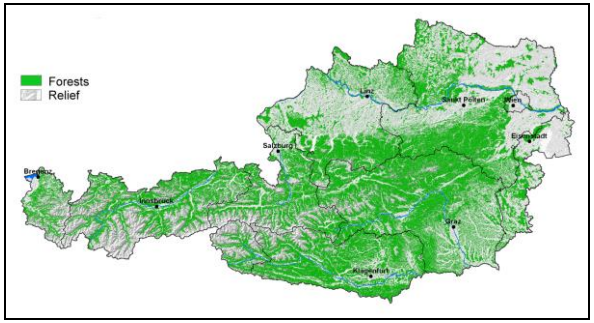


*Fig.1: Map of forests in Austria. Source: BFW, Austrian Forest Inventory.*

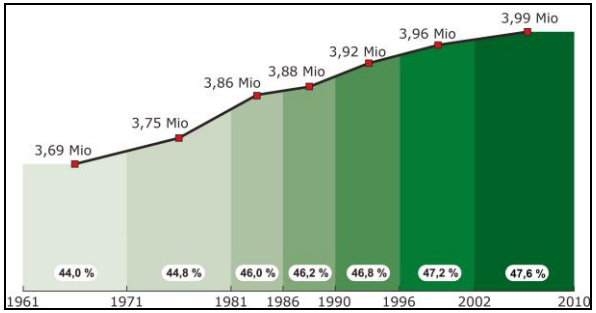


*Fig. 2: Development of the forest area in Austria in million hectares/shares in total area in percent. Source: BFW, Austrian Forest Inventory.*

## Large stocks of wood

### Indicator 1.2 – Growing stock

With 1,135 million m³ the growing stock has reached a record level. With an average of 354°m³/hectare, small private forests have the largest growing stocks of all ownership categories. The increase in growing stock is not only a consequence of the growth in area, but is also due to a significant increase in forests themselves.

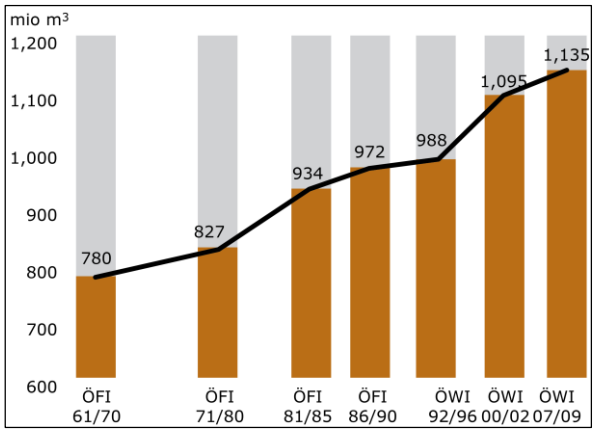


*Fig. 3: Development of stocks in million* m³ *since 1961. Source: BFW, Austrian Forest Inventory.*

## Forests are most important carbon sinks

### Indicator 1.4 – Forest carbon

Surveys prove that forests absorb by far more carbon than they release. In earlier reporting years on the Climate Convention (1990 to 2015) forests have always acted as carbon sinks. These sinks correspond to up to 25% of Austria's annual greenhouse gas emissions.

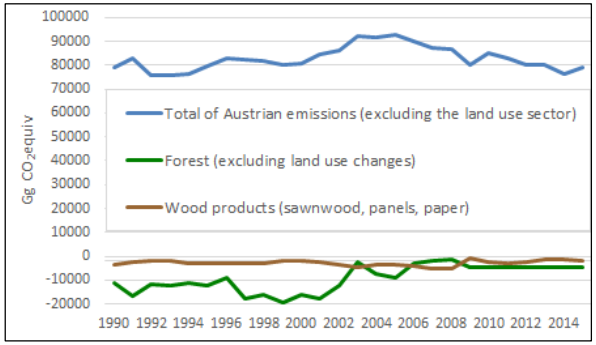


*Fig. 4: Total $CO_2$ emissions and the $CO_2$ sink in forests. Source: Environment Agency Austria, 2017.*

The carbon balance of forests is the by far most important factor of influence on the greenhouse balance of the entire land-use sector.

As a result of the higher degree of fellings the net sink of forests has, over the past few years, clearly decreased compared to the figures of the nineteen nineties. However, the wood which is utilised has a positive effect on the greenhouse gas balance also in the balance of the wood products stock from domestic fellings (sawnwood, panels, paper) and, indirectly, via the substitution of products made of other raw materials (e.g. concrete, steel, plastic).

## Forest damage is a continuous challenge

### Indicator 2.4 – Forest damage

Damage caused by storm and bark beetles are among the most significant problems of the past decades. A connection of this development with climate change is rather likely. Furthermore, there are harmful factors that endanger the stocks of individual tree species all over Austria, for example the ash dieback caused by the Chalara fraxinea fungus. Damage by game has been on a high level for many years and often prevents the necessary regeneration.

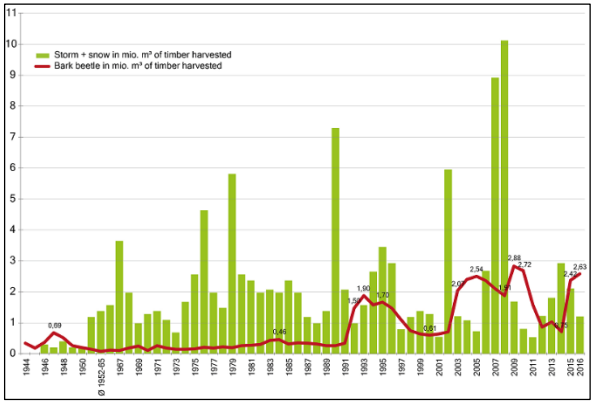


*Fig. 5: Levels of wood loss. Source: BFW, Documentation of the forest damage factors, 2016.*

## Wood increment exceeds consumption

### Indicator 3.1 – Increment and fellings

Ever since the first National Forest Inventories the quantity of wood consumed has always been below the increment. Presently, the annual increment amounts to 30.4 million cubic metres, of which 25.9 million cubic metres are utilised.

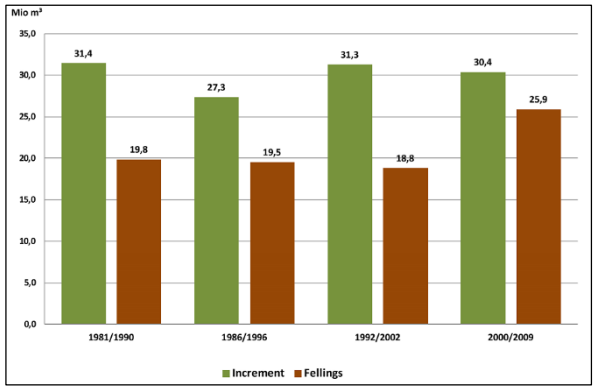


*Fig. 6: Total annual increment and fellings. Source: BFW, Austrian Forest Inventory.*

## Diversity of tree species composition

### Indicator 4.1 – Diversity of tree species

For decades the trend in Austria's forest management has been towards greater closeness to nature. As a result, the share of broadleaved trees and broadleaved shrubs has increased, pure coniferous stands and in particular pure spruce stands have decreased and a trend towards mixed stands can be observed.

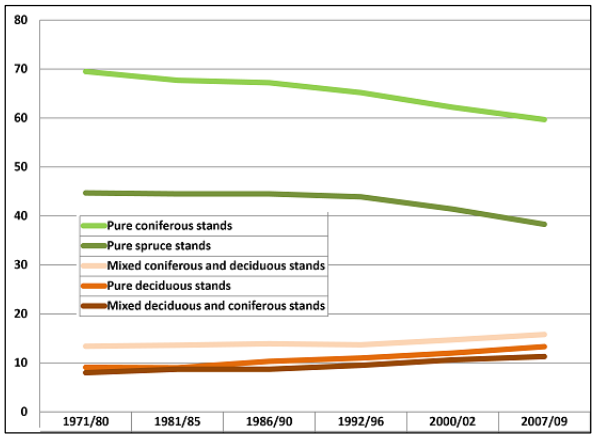


*Fig. 7: Shares of forest land in % by types of mix in commercial forests. BFW, Austrian Forest Inventory.*

## Growing share of deadwood

### Indicator 4.5 - Deadwood

Dead wood in the form of standing tree stumps and lying trunks provide a habitat for a multitude of organisms and becomes an important component of the forest soil after humidification. Many species depend on deadwood during part of their life cycle. Since the nineteen nineties the share of deadwood has almost doubled and now amounts to about 8.4 m³/hectare, which is 2.5% of the total stock.

## High share of protected forests

### Indicator 4.9 – Protected forests

In Austria, about 830,000 hectares of forests are located in areas identified under nature conservation law; this corresponds to 21.5% of the total forest area.

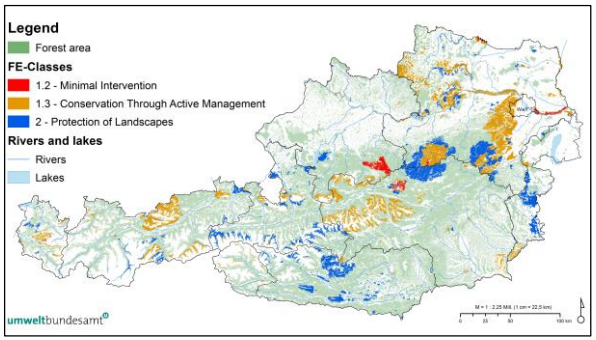


*Fig. 8: Forests in protected areas.*
*Source: Environment Agency Austria. 2014.*

## The protective effect of forests safeguards human habitats

Indicators 5.1 and 5.2 – Protective forests

Almost one fifth of the Austrian forest area are so-called "protective forests", which means forests having a protective effect. They protect infrastructures like settlements, roads, cables and pipes (forests with object-protecting effect) as well as soil and water (site protecting forest).

## Forests are a significant economic factor

Indicators 6.2 – Contribution of forest sector to GDP, 6.5 – Forest sector workforce, 6.8 – Trade in wood

Together with the wood, paper and board industries forestry plays an important role in economy.

In 2013 the forestry sector accounted only for about 2.5% of the GDP; in absolute terms the gross value added amounted to € 8 billion. However, with a foreign trade surplus of € 3,85 billion the value-added chain of forest-timber-paper is one of the most important items of Austria's foreign trade.

About 300,000 persons draw an income from the forest- and wood-based sector. 7,000 of this are forest employees. The significantly increasing mechanisation and technical development of timber harvesting which has taken place since the beginning of the nineteen eighties, as well as administrative rationalisation measures have led to declining numbers of employees.

## The use of wood promotes climate protection and green economy

Indicators 6.7 – Wood consumption and 6.9 – Wood energy

Using the renewable raw material wood from sustainable forest management has a positive impact on climate protection and on the green economy and strengthens Austria as a business location.

Presently, approximately 38 million cubic metres of wood are processed in Austria per year. This wood is not entirely from Austrian forests; almost 10 million cubic metres are imported.

The largest timber consumers are the sawing, paper and board industries. The share of wood used to generate energy has continuously risen over the past few years.

## Modern training and advanced training ensures sustainable forest management

Indicator 6.13 – Research, training and further education

Forestry training is oriented towards the concept of sustainable, multi-functional forest management as well as towards the job opportunities of its graduates in the different fields of production. It takes account of national and international education strategies. Austrian forest expertise is estimated and demanded world-wide.

After declining numbers of students and graduates from the study branches forestry and wood technology were observed for some time, this trend has reversed now and student numbers are rising again.

## Special focus on social and cultural aspects of forests

Indicators 6.11 – Cultural and spiritual values and 6.16 – Awareness raising about the importance and health effects of forests

With the help of targeted measures, the social and cultural aspects of forests can be developed and made noticeable.

More than 1,000 persons have already been trained in special "certificate courses" on forest-related education and on the issue "Forests & Culture". With 55,000 offers for kindergartens, schools and adults, graduates of those courses reached more than 900,000 persons during the 2007-2016 period.

Under the title "Green CARE Wald" forest topics of relevance to society are bundled in order to better integrate them into regional and operational procedures. A particular task to be pursued in this field is the development of specific health and therapy offers in and around forests.

## Austria takes big efforts to promote sustainable forestry on the international level

Indicators 7.1, 7.2, 7.3 – Austria's international responsibility for SFM

The objective of Austria's foreign-policy endeavours is to promote the breakthrough of sustainable forest management principles, if possible all over the world. Austria proactively participates in the process of shaping international forest policy, in particular at the United Nations Forum on Forests,

in the Climate Convention, in the Convention on Biodiversity and in the Ministerial Conference on the Protection of Forests in Europe.

A second priority is bilateral know-how and technology transfer as well as support for projects on sustainable forest management. In 2016 nine forest-related projects were funded by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) in the scope of development cooperation with € 8,1 million and received technical assistance from Austrian organisations. Furthermore, international organisations active in fields of relevance to forests received about € 420,000 of financial support in 2016.

**For more detailed information, please see the Austrian Forest Report 2015 and the Austrian Report on Indicators for Sustainable Forest Management 2017 at www.walddialog.at**

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Compiled and arranged by: Johannes Prem, BMLFUW, III/1 - Waldpolitik und Waldinformation, and Stefanie Linser, EFICEEC c/o BOKU



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