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SUSTAINABLE FOREST MANAGEMENT IN AUSTRIA
KEY INDICATORS 2017

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PREFACE

SUSTAINABLE FOREST MANAGEMENT is a must for a country like Austria, of which almost 50 percent is covered by forests. 145,000 forest owners have lived this concept for many generations. The environment, the economy as well as society benefit from it.

The Austrian Forest Strategy 2020+ defines a list of 65 indicators for sustainable forest management. With the help of these indicators sustainable forest management can be measured and assessed. Out of these a few key indicators were selected and are described in this publication.

In September 2015 the international community agreed on the 17 Sustainable Development Goals. Goal 15 strives to ensure that all forests are managed sustainably. We owe this to our planet and to future generations.

Austria's forest sector is a frontrunner in this regard. It is therefore important to present the know-how and the expertise of the Austrian forest and wood sector well internationally.

Yours sincerely,

ANDRÄ RUPPRECHTER
Federal Minister of Agriculture, Forestry, Environment and Water Management

SUSTAINABLE FOREST MANAGEMENT IN AUSTRIA KEY INDICATORS 2017

A SELECTION OF THE AUSTRIAN INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

The criteria and indicators are based on the Pan-European Criteria and Indicators[1] for Sustainable Forest Management (SFM) and were developed and agreed upon within the participatory process of the Austrian Forest Dialogue. Together with stakeholders target size and actual numbers were defined for the set of indicators to measure and assess changes in sustainable forest management over time for each criterion. These criteria and indicators also serve as a basis for national and international reporting obligations.

14 headline issues were selected out of the total 65 indicators, including 21 key indicators. The following information gives an overview on the main data on Austria's forests. The whole indicator set is available at www.walddialog.at.

Austria's criteria for sustainable forest management:

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 43%.

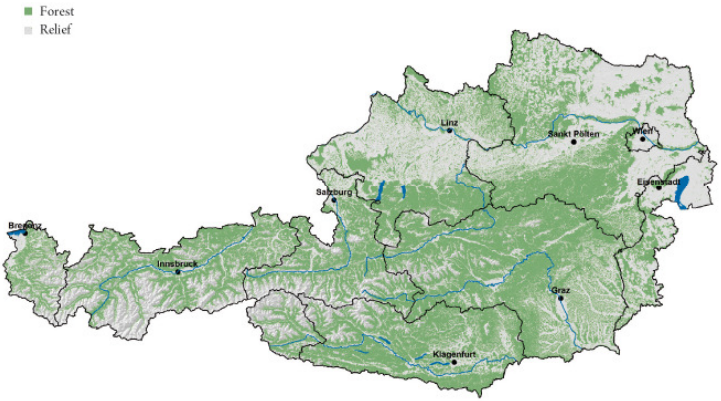


Figure 1: Map of forests in Austria

Source: BFW, Austrian Forest Inventory

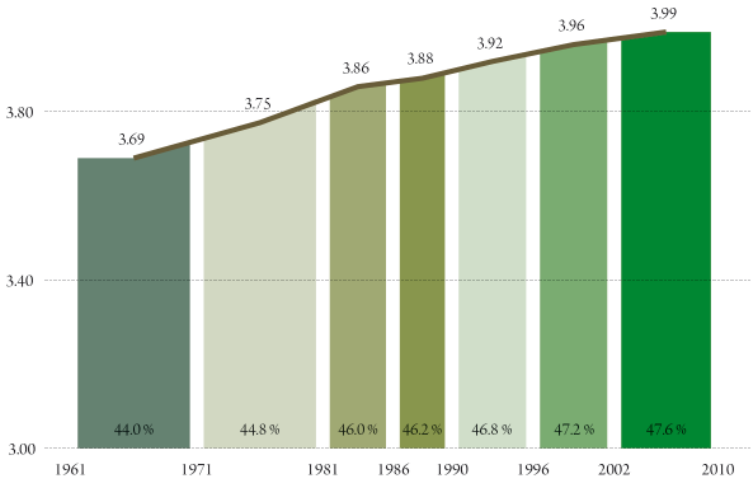


Figure 2: Development of the forest area in Austria in million hectares/shares in total area in percent

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 privately owned forests have the largest growing stock 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.

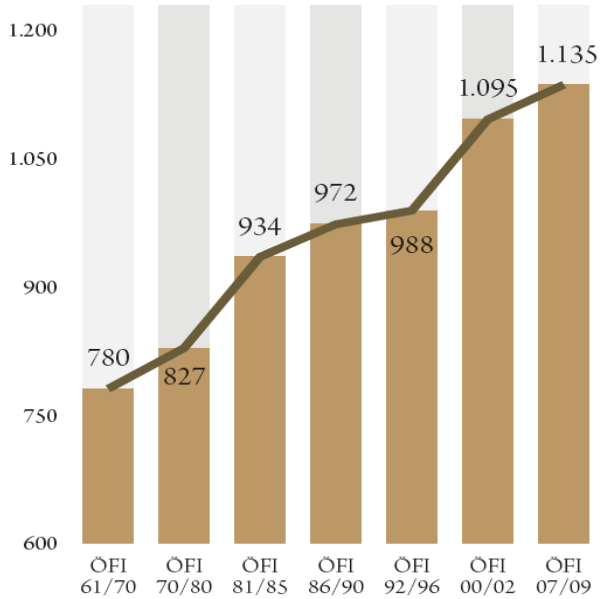


Figure 3: Development of stocks in million m³ since 1961

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 always acted as carbon sinks. These sinks correspond to up to 25% of Austria's annual greenhouse gas emissions.

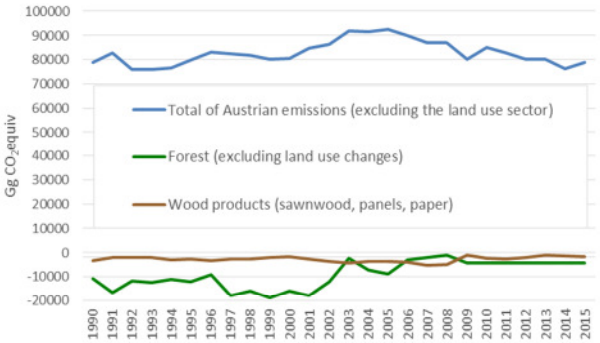


Figure 4: Total CO2 emissions and the CO2 sink in forests

Source: Environment Agency Austria, 2017

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

As a result of the higher harvests, 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 (sawn wood, 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

Damages caused by storm and bark beetles are among the most significant events of the past decades. Furthermore, there are 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.

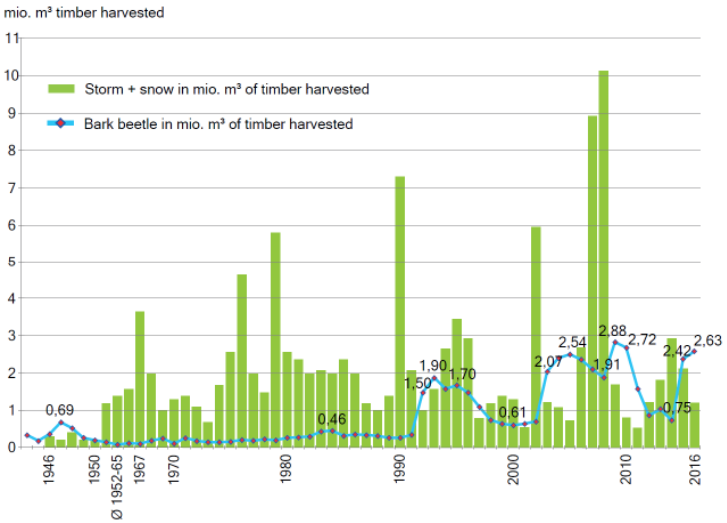


Figure 5: Levels of wood loss

Source: BFW, Documentation of the forest damage factors, 2016

WOOD INCREMENT EXCEEDS

INDICATOR 3.1: INCREMENT AND FELLINGS

Ever since the first National Forest Inventories the quantity of wood consumed has been below the increment. Presently, the annual increment amounts to 30.4 million cubic metres; of this amount, 25.9 million cubic metres are utilised, which accounts for 85%.

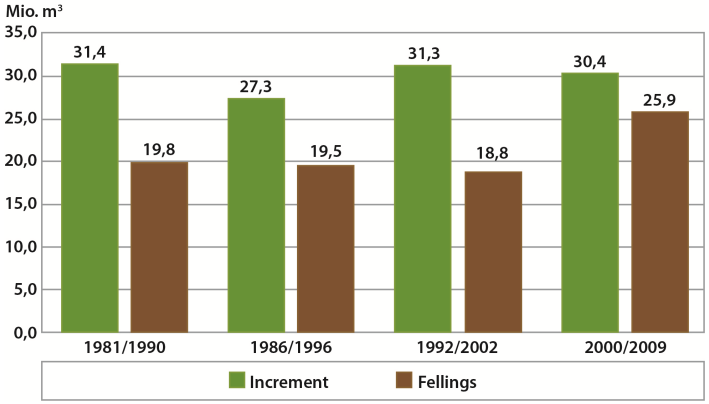


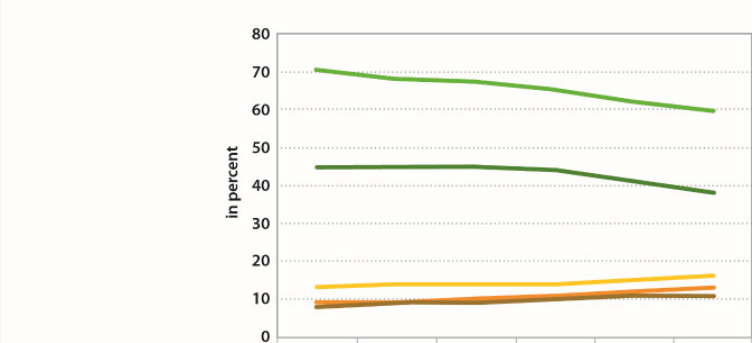
Figure 6: Total annual increment and fellings

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.



	1971/80	1981/85	1986/90	1992/96	2000/02	2007/09
Pure coniferous stands	70	68	67	65	62	60
Pure spruce stands	45	45	45	44	41	38
Mixed coniferous & deciduous stands	13	14	14	14	15	16
Pure deciduous stands	9	9	10	11	12	13
Mixed deciduous & coniferous stands	8	9	9	10	11	11

Figure 7: Shares of forest land in % by types of mix in commercial forests

Source: BFW, Austrian Forest Inventory

GROWING SHARE OF DEADWOOD

INDICATOR 4.5: DEADWOOD

Deadwood 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, or 2.5% of the total stock.

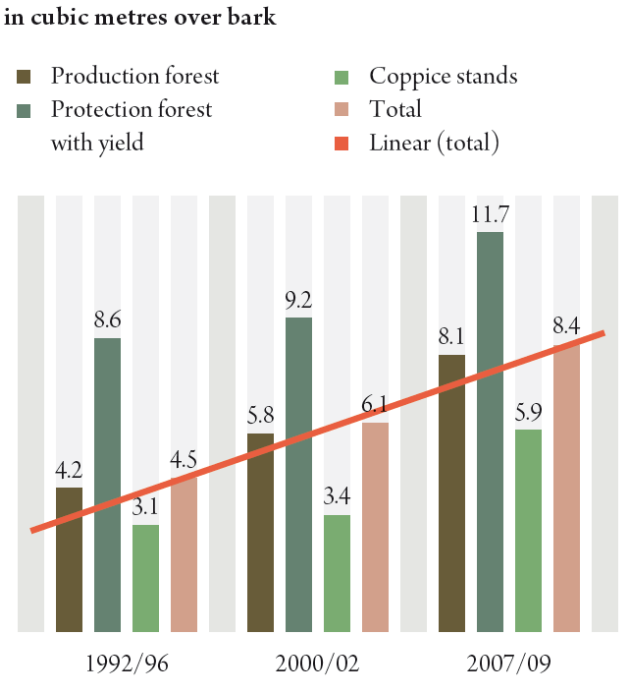


Figure 8: Time series of deadwood in Austria

Source: ÖWI 1992/96 until ÖWI 2007/09, BFW 2014

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 (e.g. national parks, Natura 2000), which accounts for 21.5% of the total forest area. The protected areas correspond to class 1 and class 2 of Forest Europe's criteria.

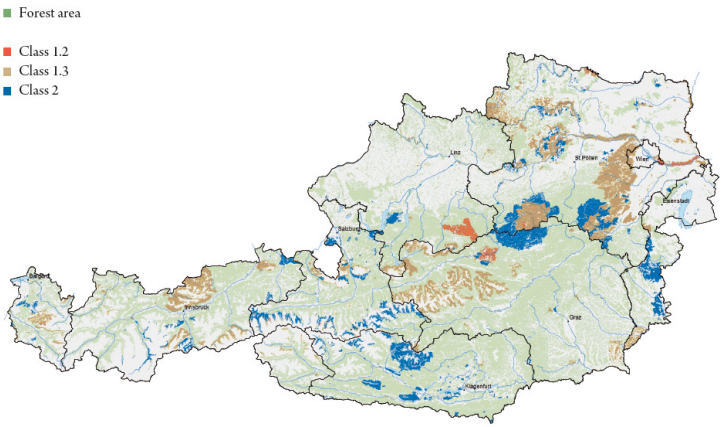


Figure 9: Forests in protected areas. Class 1.2- Minimal intervention, 1.3- Conservation through active management, 2- Protected landscapes.

Source: Environment Agency Austria. 2014

THE PROTECTIVE EFFECT OF FORESTS SAFEGUARDS HUMAN HABITATS

INDICATOR 5.1: OBJECT- PROTECTING FORESTS
INDICATOR 5.2: SITE- PROTECTING FORESTS

Almost one fifth of the Austrian forest area is so-called "protective forest" area, which means forests are 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

INDICATOR 6.2: CONTRIBUTION OF FOREST SECTOR TO GDP
INDICATOR 6.5: FOREST SECTOR WORKFORCE
INDICATOR 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 for only about 2.5% of the GDP; in absolute terms the gross value added amounted to € 8 billion. However, with a foreign trade surplus of € 4.16 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 these are forest employees. The 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

INDICATOR 6.7: WOOD CONSUMPTION
INDICATOR 6.9: WOOD ENERGY

Using the renewable raw material of wood from sustainable management, forests have a positive impact on climate protection and on the green economy and strengthen Austria as a business location. Presently, approximately 40 million cubic metres of wood are processed or used for energy purposes in Austria per year. Out of these around 23 million cubic metres are from Austrian forests. Almost 10 million cubic metres are imported and about 7 million cubic metres are from other sources.

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, multifunctional 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 appreciated and demanded world-wide. After a decline in the numbers of students and graduates from the study branches of forestry and wood technology, this trend has reversed and student numbers are rising again.

SPECIAL FOCUS ON SOCIAL AND CULTURAL ASPECTS OF FORESTS

INDICATOR 6.11: CULTURAL AND SPIRITUAL VALUES INDICATOR 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 people in the period from 2007 to 2016. Under the heading "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

INDICATOR 7.1: NUMBER AND BUDGET OF DEVELOPMENT COOPERATION PROJECTS WITH A FOREST FOCUS

In the last 10 years 28 forest-related development projects were financed by the Austrian Development Agency (ADA), the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) and the Federal Ministry of Finance (BMF).

The BMLFUW funded a total of nine, partly multiannual, projects with a forest focus, which were overseen by Austrian organisations and experts.

INDICATOR 7.2: AUSTRIAN CONTRIBUTION TO INTERNATIONAL AND MULTILATERAL FOREST GOVERNANCE

Austria plays a pro-active role in international forest policy discussions, including taking the lead in international committees and engaging in forest-relevant organisations, conventions and global, Pan-European and EU policy processes.

INDICATOR 7.3: PUBLIC FUNDS FOR FOREST-RELATED, INTERNATIONALLY OPERATING ORGANISATIONS AND FOR THE PARTICIPATION OF AUSTRIAN EXPERTS IN FOREST-RELATED INTERNATIONAL BODIES

Austria endeavours 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 BMLFUW in the scope of development cooperation with a budget of € 8.1 million and 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 www.bmlfuw.gv.at/forst/oesterreich-wald/waldzustand/waldbericht2015.html
- ÖWAD set of indicators 2017 www.bmlfuw.gv.at/forst/walddialog/dokumente/indikatoren0.html
- Austrian Forest Strategy 2020+ www.bmlfuw.gv.at/forst/oesterreich-wald/waldstrategie-2020/waldstrategie_detail.html.

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FOR AN AUSTRIA WORTH LIVING IN.

WE SEEK an Austria worth living in within a strong Europe: with clean air, clean water, a diverse natural environment and safe, high quality and affordable foods. We create the best possible conditions for this.

WE WORK for safe living conditions, a sustainable lifestyle and the reliable protection of life.

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