

# GLOBAL FOREST RESOURCES ASSESSMENT 2015

## COUNTRY REPORT

# **Austria**

Rome, 2014

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Global Forest Resources Assessment (FRA). This country report is prepared as a contribution to the FAO publication, the Global Forest Resources Assessment 2015 (FRA 2015).

The content and the structure are in accordance with the recommendations and guidelines given by FAO in the document Guide for country reporting for FRA 2015 (<http://www.fao.org/3/a-au190e.pdf>). These reports were submitted to FAO as official government documents.

The content and the views expressed in this report are the responsibility of the entity submitting the report to FAO. FAO may not be held responsible for the use which may be made of the information contained in this report.

---

## TABLE OF CONTENTS

Report preparation and contact persons.....	4
1. What is the area of forest and other wooded land and how has it changed over time? .....	5
2. What is the area of natural and planted forest and how has it changed over time? .....	13
3. What are the stocks and growth rates of the forests and how have they changed? .....	18
4. What is the status of forest production and how has it changed over time? .....	29
5. How much forest area is managed for protection of soil and water and ecosystem services? .....	45
6. How much forest area is protected and designated for the conservation of biodiversity and how has it changed over time? .....	51
7. What is the area of forest affected by woody invasive species? .....	54
8. How much forest area is damaged each year? .....	57
9. What is the forest area with reduced canopy cover? .....	67
10. What forest policy and regulatory framework exists to support implementation of sustainable forest management SFM? .....	68
11. Is there a national platform that promotes stakeholder participation in forest policy development? .....	71
12. What is the forest area intended to be in permanent forest land use and how has it changed over time? .....	73
13. How does your country measure and report progress towards SFM at the national level? .....	76
14. What is the area of forest under a forest management plan and how is this monitored? .....	79
15. How are stakeholders involved in the management decision making for publicly owned forests? .....	81
16. What is the area of forest under an independently verified forest certification scheme? .....	83
17. How much money do governments collect from and spend on forests? .....	85
18. Who owns and manages the forests and how has this changed? .....	88
19. How many people are directly employed in forestry? .....	95
20. What is the contribution of forestry to Gross Domestic Product (GDP)? .....	97
21. What is forest area likely to be in the future .....	98

## Report preparation and contact persons

### Contact persons

The present report was prepared by the following person(s)

Name (FAMILY NAME, first name)	Institution/address	Email	Tables
HANGLER, Johannes	Federal Ministry of Agriculture, Forestry, Environment and Water Management, 1020 Vienna, Marxergasse 2	johannes.hangler@lebensministerium.at	National correspondent
PREM, Johannes	Federal Ministry of Agriculture, Forestry, Environment and Water Management, 1020 Vienna, Marxergasse 2	johannes.prem@lebensministerium.at	Alternate national correspondent
BÜCHSENMEISTER, Richard	Federal Research Centre for Forests (BFW), 1131 Vienna, Seckendorff-Gudent-Weg 8	richard.buechsenmeister@bfw.gv.at	All tables based on NFI data
STEYRER, Gottfried	Federal Research Centre for Forests (BFW), 1131 Vienna, Seckendorff-Gudent-Weg 8	gottfried.steyrer@bfw.gv.at	8b
FREUDENSCHUSS, Andrea	Environment Agency Austria (Umweltbundesamt), 1090 Vienna, Spittelauer Lände 5	alexandra.freudenschuss@umweltbundesamt.at	10
RAPPOLD, Georg	Federal Ministry of Agriculture, Forestry, Environment and Water Management, 1020 Vienna, Marxergasse 2	georg.rappold@lebensministerium.at	11
BEER, Raphaela	Federal Ministry of Agriculture, Forestry, Environment and Water Management, 1020 Vienna, Marxergasse 2	raphaela.beer@lebensministerium.at	12
MAYER, Christina	Statistics Austria; 1110 Vienna, Guglgasse 13	christina.mayer@statistik.gv.at	19
LEITNER, Ferdinand	Statistics Austria; 1110 Vienna, Guglgasse 13	ferdinand.leitner@statistik.gv.at	20

### Introductory Text

Place an introductory text on the content of this report

--

### Desk Study?

Check "yes" if this survey is a Desk Study, "no" otherwise	
Desk Study?	no

## 1. What is the area of forest and other wooded land and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 1.1 Categories and definitions

Category	Definition
Forest	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.
Other wooded land	Land not classified as "Forest" spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of 5-10 percent or trees able to reach these thresholds ; or with a combined cover of shrubs bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.
Other land	All land that is not classified as "Forest" or "Other wooded land".
...of which with tree cover ( <i>sub-category</i> )	Land considered as "Other land", that is predominantly agricultural or urban lands use and has patches of tree cover that span more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity. It includes bothe forest and non-forest tree species.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.
Forest expansion	Expansion of forest on land that, until then, was not defined as forest.
...of which afforestation ( <i>sub-category</i> )	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not defined as forest.
...of which natural expansion of forest ( <i>sub-category</i> )	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).
Deforestation	The conversion of forest to other land use or the longterm reduction of the tree canopy cover below the minimum 10 percent threshold.
...of which human induced ( <i>sub-category</i> )	Human induced conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold.
Reforestation	Natural regeneration or re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.
...of which artificial reforestation ( <i>sub-category</i> )	Re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.

### 1.2 National data

#### 1.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Austrian Forest Inventory (NFI), Federal Research Centre for Forests (BFW), Vienna, <a href="http://bfw.ac.at/rz/wi.home">http://bfw.ac.at/rz/wi.home</a>	Forest area, other wooded land area	1988, 1994, 2001, 2008	Assessments 1986/90, 1992/96, 2000/02 and 2007/09

2	NFI	Forest expansion, deforestation, reforestation	1988-1994, 1994-2001, 2001-2008	Assessments 1986/90, 1992/96, 2000/02 and 2007/09
3	FAOSTAT, 17 January 2013	TOTAL country area, inland water bodies	2009	2009 figures are used for all reference years
4	N/A	N/A	N/A	N/A

### 1.2.2 Classification and definitions

National class	Definition
Waldfläche (Forest and other wooded land)	Land with tree species according the Austrian Forest Act 1975 or shrub and bushes spanning more than 0.05 hectares (minimum width: 10 meter) and a canopy cover of more than 30 percent.
Strauchfläche (Other wooded land)	Land with shrub and bushes spanning more than 0.05 hectares (minimum width: 10 meter), including areas with pinus mugo and alnus viridis.
Afforestation	See FRA 2015 definition.
Reforestation	FRA 2010 definition: Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
Natural expansion of forest	See FRA 2015 definition. Through natural regeneration or other natural succession (increase of canopy cover, movement of the edge of the forest).

### 1.2.3 Original data

Forest area				
FRA Categories	Area (1000 hectares)			
	1988	1994	2001	2008
Forest	3759	3809	3843	3856
Other wooded land	119	115	117	135
....of which “Strauchfläche” (OWL) within “Ertragswald” (forests in yield)	32	26	26	25

...of which “Strauchfläche” (OWL) within “Schutzwald außer Ertrag” (protective forest without yield)	linear extrapolated: 87	89	91	110
<b>TOTAL (Forest + OWL)</b>	<b>3878</b>	<b>3924</b>	<b>3960</b>	<b>3991</b>

Remark:

Other wooded land = “Strauchfläche” within all “Betriebsarten” (silvicultural systems) (including those within “Schutzwald außer Ertrag” (protective forest without yield)).

Forest = “Waldfläche” without “Strauchfläche”.

### Forest expansion, reforestation

Afforestation - Reforestation - Natural Expansion of forests (W. Russ, BFW)				
	in 1000 ha	change 1986/90 - 1992/96	change 1992/96 - 2000/02	change 2000/02 - 2007/09
		(change 1988 - 1994)	(change 1994 - 2001)	(change 2001 - 2008)
	<u>observation period</u>	6 years	7 years	7 years
1+2+3	<b>Forest area (total, incl. OWL)</b>	88.1	68.3	71.6
1	<b>.. of which through artificial regeneration</b>	21.7	11.7	4.9

2	<b>.. of which through natural regeneration</b>	26.9	20.2	20.9
3	<b>.. of which through other natural succession</b>	39.5	36.4	45.8
2+3	<b>Natural expansion of forest</b>	66.4	56.6	66.7
4	<b>Artificial regeneration (total, incl. OWL)</b>	67	41	30
1	<b>.. of which afforestation</b>	22	12	5
4-1	<b>.. of which reforestation</b>	45	29	25
	<u>per year</u>			
1+2+3	<b>Forest area (total, incl. OWL)</b>	14.7	9.8	10.2
1	<b>.. of which through artificial regeneration</b>	<b>3.6</b>	<b>1.7</b>	<b>0.7</b>
2	<b>.. of which through natural regeneration</b>	4.5	2.9	3.0
3	<b>.. of which through other natural succession</b>	6.6	5.9	6.5
2+3	<b>Natural expansion of forest</b>	<b>11.1</b>	<b>8.1</b>	<b>9.5</b>

4	<b>Artificial regeneration (total, incl. OWL)</b>	11.2	5.9	4.3
1	<b>.. of which afforestation</b>	3.7	1.7	0.7
4-1	<b>.. of which reforestation</b>	<b>7.5</b>	<b>4.1</b>	<b>3.6</b>

### 1.3 Analysis and processing of national data

#### 1.3.1 Adjustment

<p><b>Forest area</b></p> <p>Not needed.</p> <p><b>Forest expansion, reforestation</b></p> <p>Not needed.</p>
---

#### 1.3.2 Estimation and forecasting

<p><b>Forest area</b></p> <p>Linear interpolation/extrapolation is used for forests and OWL.</p> <p>Figures for 1990, 2000 and 2005 are interpolated between 1988 (1986/90), 1994 (1992/96), 2001 (2000/02) and 2008 (2007/09) with the exception of “Strauchfläche” within “Schutzwald außer Ertrag” (OWL within protective forest without yield). This part of OWL figure is extrapolated for 1990, as there was no assessment in 1986/90 for this category.</p> <p>Figures for 2010 and 2015 are extrapolated on the basis of 2001 (2000/02) and 2008 (2007/09).</p> <p>Other land = total country area (FAOSTAT) – forest area – other wooded land – inland water bodies (FAOSTAT).</p> <p><b>Forest expansion, reforestation</b></p> <p>2005 and 2010 data are calculated as annual change between 2000/02 and 2007/09.</p>
--

## 1.3.3 Reclassification

<b>Forest area</b>
Not needed.
<b>Forest expansion, reforestation</b>
Not needed.

## 1.4 Data

Table 1a

Categories		Area (000 hectares)				
		1990	2000	2005	2010	2015
	Forest	3776	3838	3851	3860	3869
	Other wooded land	118	117	127	140	153
	Other land	4349.5	4288.5	4265.5	4243.5	4221.5
	... of which with tree cover	N/A	N/A	N/A	N/A	N/A
	Inland water bodies	144.4	144.4	144.4	144.4	144.4
	TOTAL	8387.90	8387.90	8387.90	8387.90	8387.90

Table 1b

Categories		Annual forest establishment / loss (000 hectares per year)				...of which of introduced species (000 hectares per year)			
		1990	2000	2005	2010	1990	2000	2005	2010
	Forest expansion	14.7	9.8	10.2	10.2	N/A	0.9	1.2	1.2
	... of which afforestation	3.6	1.7	0.7	0.7	N/A	0	0	0
	... of which natural expansion of forest	11.1	8.1	9.5	9.5	N/A	0.9	1.2	1.2
	Deforestation	7	4.6	6	6	N/A	0	0	0
	... of which human induced	3.2	2.5	3.7	3.7	N/A	0	0	0
	Reforestation	75.5	67.4	75.7	75.7	N/A	N/A	N/A	N/A

	... of which artificial	7.5	4.1	3.6	3.6	N/A	N/A	N/A	N/A
---	-------------------------	-----	-----	-----	-----	-----	-----	-----	-----

## Tiers

Category	Tier for status	Tier for reported trend
Forest	Tier 3	Tier 3
Other wooded land	Tier 3	Tier 3
Forest expansion	Tier 3	Tier 3
Deforestation	Tier 3	Tier 3
Reforestation	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
<ul style="list-style-type: none"> <li>• Forest</li> <li>• Other wooded land</li> <li>• Afforestation</li> <li>• Reforestation</li> <li>• Natural expansion of forest</li> <li>• Deforestation</li> </ul>	<p><b>Tier 3</b> : Data sources: Either recent (less than 10 years ago) National Forest Inventory or remote sensing, with ground truthing, or programme for repeated compatible NFIs</p> <p><b>Tier 2</b> : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 years ago)</p> <p><b>Tier 1</b> : Other</p>	<p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status)</p> <p><b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status)</p> <p><b>Tier 1</b> : Other</p>

## 1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	N/A	N/A
Other wooded land	N/A	N/A
Other land	N/A	N/A
Other land with tree cover	N/A	N/A
Inland water bodies	FAOSTAT data are used.	2009 figures are reported for all reference years.
Forest expansion	Including afforestation and natural expansion of OWL.	Forest expansion of introduced species: Introduced species are relatively rare in Austria. For that reason the NFI is not able to give significant information about changes in area of introduced species. The standard error would be too high. Therefore the data mean areas including introduced species, not the area of themselves.
Deforestation	Including deforestation of OWL.	N/A

Reforestation	Including reforestation of OWL.	Artificial reforestation: The decline of the artificial reforestation area is due to the fact that natural regeneration is more and more used for re-establishment of stands after final cut. This trend is clearly shown by NFI results but also by forest reproductive material statistics (decrease of forest plant production).
---------------	---------------------------------	---

**Other general comments to the table**

FOREST AREA: The Austrian minimum Forest + OLW area is 0.05 hectares. This causes a larger area in comparison with the FRA 2015 definition of 0.5 hectares. The Austrian minimum Forest + OWL canopy cover is 30 percent. This causes a smaller area in comparison with the FRA 2015 definition of 10 percent. It is assumed that both differences cancel out each other. This assumption was proofed true by a supplementary assessment according to the FAO forest definition as part of the NFI 2007/09 assessment. FOREST EXPANSION, REFORESTATION: Due to the fact that no appropriate annual data are available, NFI-data are used. Therefore the figures for the reported years do not refer to the averages for 5-year periods, but to the averages for the periods 1988-1994, 1994-2001 and 2001-2008 respectively.

## 2. What is the area of natural and planted forest and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 2.1 Categories and definitions

Term	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Naturalized introduced species	Other naturally regenerated forest where the tree species are predominantly non-native and do not need human help to reproduce/maintain populations over time.
Introduced species	A species, subspecies or lower taxon occurring <i>outside</i> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
Category	Definition
Primary forest	Naturally regenerated forest of native species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
...of which of introduced species ( <i>sub-category</i> )	Other naturally regenerated forest where the trees are predominantly of introduced species.
...of which naturalized ( <i>sub-sub category</i> )	Other naturally regenerated forest where the trees are predominantly of naturalized introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
...of which of introduced species ( <i>sub-category</i> )	Planted forest where the planted/seeded trees are predominantly of introduced species.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
...of which planted ( <i>sub-category</i> )	Mangroves predominantly composed of trees established through planting.

### 2.2 National data

#### 2.2.1 Data sources

References to sources of information	Variables	Years	Additional comments

1	Hemerobie österreichischer Waldökosysteme (Hemeroby of Austrian Forest Ecosystems), Österreichische Akademie der Wissenschaften. G. Grabherr ... - Innsbruck: Wagner, 1998. (Veröffentlichung des Österreichischen MaB-Programms; Bd. 17)	Primary forest [Percentage of forest cover referring to each level of naturalness (Hemeroby classes 1-9 or 5 reduced classes: natural, seminatural, moderately altered, altered, artificial)]	1995	Hemeroby study was carried out in co-operation with the Austrian Forest Inventory.
2	National Forest Inventory (BFW)	Other naturally regenerated forest, planted forest	1994 (1992/1996), 2001 (2000/02), 2008 (2007/09)	expert estimates based on regeneration assessments and knowledge of usual regeneration methods by forest type
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 2.2.2 Classification and definitions

National class	Definition
N/A	N/A

### 2.2.3 Original data

National class (forest + OWL)	%	FRA 2015 Categories (only forest)
Natural	3	Primary forest
Seminatural	22	
Moderately altered	41	
Altered	27	
Altered, forest exploitation less intensive (relative utilization intensity 6-9)	8.64 (32% of altered)	

Altered, forest exploitation intensive – moderately intensive (relative utilization intensity 1-5)	18.36 (68% of altered)	
Artificial	7	
Total forest area (forest + OWL)	100	

## 2.3 Analysis and processing of national data

### 2.3.1 Adjustment

Not needed.

### 2.3.2 Estimation and forecasting

#### **Other naturally regenerated forest and planted forest:**

In many older forests stands, retrospectively, it is impossible to identify, whether the regeneration happened naturally or artificially (by planting or deliberate seeding). For this reason the NFI doesn't collect any information about origin of older stands. Due to this lack of any measured information concerning the origin of older stands, NFI experts derived estimates for each forest type (European Forest Types). For younger stands, NFI provides information on method of regeneration. NFI recorded a markable increase of natural regeneration. In 1994 (NFI 1992/96) only 41% of regeneration areas without canopy cover were natural regenerated, in 2008 (NFI 2007/09) the share amounted to 72%.

Provided estimates for 1994, 2001 and 2008 were adapted to FRA 2015 reference years by inter- or extrapolation.

#### **Primary forest:**

There is only a single source for information on primary wooded land, the Hemeroby study (see 2.2.1).

The national category "natural" corresponds to the FRA 2015 category "primary forest". However, the national data belong to forests and OWL and FRA 2015 to forests only. Therefore, it is assumed that the conditions on forest area are the same as on forest+OWL area.

### 2.3.3 Reclassification

## 2.4 Data

### Table 2a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Primary forest	114	114	114	114	114
	Other naturally regenerated forest	1895	2015	2037	2050	2063
	... of which of introduced species	0	0	0	0	0
	... of which naturalized	0	0	0	0	0
	Planted forest	1767	1709	1700	1696	1692
	... of which of introduced species	38	38	39	39	39
TOTAL		3776.00	3838.00	3851.00	3860.00	3869.00

Table 2b

Primary forest converted to (000 ha)								
1990-2000			2000-2010			2010-2015		
Other natural regeneration	Planted	Other land	Other natural regeneration	Planted	Other land	Other natural regeneration	Planted	Other land
0	0	0	0	0	0	0	0	0

Table 2c

Categories	Area (000 hectares)				
	1990	2000	2005	2010	2015
Mangroves (forest and OWL)	0	0	0	0	0
... of which planted	0	0	0	0	0

## Tiers

Category	Tier for status	Tier for reported trend
Primary forest	Tier 2	Tier 1
Other naturally regenerated forest	Tier 3	Tier 3
Planted forest	Tier 3	Tier 3
Mangroves	Tier 3	Tier 3

## Tier Criteria

Category	Tier for status	Tier for reported trend
Primary forest/Other naturally regenerated forest/Planted forest	<p><b>Tier 3</b> : Data sources: Recent (less than 10 years) National Forest Inventory or remote sensing with ground truthing or data provided by official agencies or programme for repeated compatible NFIs</p> <p><b>Tier 2</b> : Data sources: Full cover mapping/ remote sensing or old NFI (more than 10 years) <b>Tier 1</b> : Other</p>	<p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other</p>

## 2.5 Comments

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	N/A	All reported figures are based on the Hemeroby study 1995. It is assumed that there was no change in area of primary forests since 1990.
Other naturally regenerating forest	N/A	N/A
Planted forest	N/A	N/A
Mangroves	Not applicable.	N/A

### Other general comments to the table

N/A

### 3. What are the stocks and growth rates of the forests and how have they changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 3.1 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees with a minimum diameter of 10 cm at breast height (or above buttress if these are higher). Includes the stem from ground level up to a top diameter of 0 cm, excluding branches.
Net Annual Increment (NAI)	Average annual volume of gross increment over the given reference period less that of natural losses on all trees, measured to minimum diameters as defined for "Growing stock".
Above-ground biomass	All living biomass above the soil including stem stump branches bark seeds and foliage.
Below-ground biomass	All biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Dead wood	All non-living woody biomass not contained in the litter either standing lying on the ground or in the soil. Dead wood includes wood lying on the surface dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in above-ground biomass	Carbon in all living biomass above the soil including stem stump branches bark seeds and foliage.
Carbon in below-ground biomass	Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Carbon in dead wood	Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in litter	Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm ) lying dead in various states of decomposition above the mineral or organic soil.
Soil carbon	Organic carbon in mineral and organic soils (including peat) to a soil depth of 30 cm.

#### 3.2 National data

##### 3.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	National Forest Inventory (BFW)	Volume growing stock (according to tree species); DBH, height, crown ratio, dead wood, other data	1988, 1994, 2001, 2008	Inventory periods 1986/90; 1992/96; 2000/02 and 2007/09.
2	Eckmüller, 2006; Ledermann & Neumann, 2006; Rubatscher et al., 2006; Gschwandtner & Schadauer, 2006; Hochbichler et al., 2006; Wirth et al., 2004; Offenthaler & Hochbichler, 2006	Biomass functions (BF)	2006	In: Austrian Journal of Forest Science (2006), 123. Jahrgang, Heft 1/2. Tree compartments: dependent on BF – branches, needles, roots.

3	Weiss et al., 2000	Basic wood densities	2000	Weiss et al. 2000: Die Kohlenstoffbilanz des österreichischen Waldes und Betrachtungen zum Kyoto-Protokoll. Umweltbundesamt, Wien M-106.
4	Forest Soil Inventory (FBVA, 1992)	Soil organic carbon	1988	Inventory period 1987-1989; results from 511 sampling sites; soil depth 50 cm;
5	BioSoil Project (BFW, 2013): Projekt BioSoil - Europäisches Waldboden-Monitoring (2006/07). Datenband. Standort- u. Bodenbeschreibung, Einzeldaten, Grundstatistik.	Soil organic carbon	2006/07	Inventory period 2006/07; results from 139 sampling sites within the EU wide BioSoil project; soil depth 80 cm.

### 3.2.2 Classification and definitions

National class	Definition
Growing stock	= 10 cm DBH. Specifications of country threshold values see Table under 3b." /> Volume of all standing trees (living + dead trees) in forests in yield $\geq$ 10 cm DBH. Specifications of country threshold values see Table under 3b.
Special calculation: Growing stock in protective forest without yield	0 cm DBH." /> Volume of all standing trees (living + dead trees) $>$ 0 cm DBH.
Above-ground biomass	All living biomass above the soil including stem, stump, branches, bark, seeds and foliage (only of evergreen trees).
Below-ground biomass	See FRA 2015 definition.
Dead wood	= 10 cm DBH), without roots, as they are considered as part of litter or soil." /> All non-living woody biomass not contained in litter or soil, standing on the ground ( $\geq$ 10 cm DBH), without roots, as they are considered as part of litter or soil.
Carbon in above-ground biomass	Carbon in all living biomass above soil including stem, stump, branches, bark, seeds and foliage (only of evergreen trees).
Carbon in below-ground biomass	See FRA 2015 definition.
Carbon in dead wood	Carbon in all non-living woody biomass not contained in litter and soil, standing on the ground, without roots, as they are considered as part of litter or soil C.
Carbon in litter	Included in soil carbon.
Soil carbon	Carbon in all non-living biomass lying dead in various states of decomposition above the mineral or organic soil and organic carbon in mineral and organic soils (including peat) to a depth of 50 cm in 1990 and to a depth of 80 cm in 2010.

## 3.2.3 Original data

<b>Growing stock</b>			
<b>Austrian Forest Inventory</b>	<b>1992/96</b>	<b>2000/02</b>	<b>2007/09</b>
	1000 m <sup>3</sup> o. b.		
Growing stock	965 855	1 070 276	1 112 201
Forests in yield (Ertragswald)			
Dead wood trees	13 301	18 311	25 617
Living trees	952 554	1 051 965	1 086 584
Growing stock Protective forests without yield (Schutzwald außer Ertrag (SaE))	30 511	28 463	31 362
<b>Biomass stock</b>			
National Forest Inventory data (BFW) and related information (see 3.2.1.).			
<b>Carbon stock</b>			
Data from the National Forest Inventory (BFW) and the Forest soil inventories (see 3.2.1).			

## 3.3 Analysis and processing of national data

## 3.3.1 Adjustment

Not needed.
-------------

## 3.3.2 Estimation and forecasting

<b>Growing stock</b>
Table 3a:

Linear interpolation and extrapolation between 1994 (NFI 1992/96), 2001 (NFI 2000/02) and 2008 (NFI 2007/09) is used.

<b>Austrian Forest Inventory</b>	1990	<b>1994</b>	2000	<b>2001</b>	2005	<b>2008</b>	2010	2015
<b>GROWING STOCK</b>	1000 m <sup>3</sup> o.b.							
Forests in yield (Ertragswald)	906 186	<b>965 855</b>	1 055 359	<b>1 070 276</b>	1 094 233	<b>1 112 201</b>	1 124 180	1 154 126
Dead wood trees	10 438	<b>13 301</b>	17 595	<b>18 311</b>	22 486	<b>25 617</b>	27 704	32 923
Living trees	895 748	<b>952 554</b>	1 037 763	<b>1 051 965</b>	1 071 747	<b>1 086 584</b>	1 096 475	1 121 203
Protective forests without yield (Schutzwald außer Ertrag (SaE))	31 681	<b>30 511</b>	28 756	<b>28 463</b>	30 120	<b>31 362</b>	32 190	34 261

Table 3b:

Linear interpolation and extrapolation between 1994 (NFI 1992/96), 2001 (NFI 2000/02) and 2008 (NFI 2007/09) is used.

Table 3c:

1990: observation period 1986-1996 (NFI 1986/90 - NFI 1992/96).

2000: observation period 1992-2002 (NFI 1992/96 - NFI 2000/02).

2005: observation period 2000-2009 (NFI 2000/02 - NFI 2007/09).

2010 and 2015: 2005 figure is reported again.

## **Biomass stock**

Data on biomass are based on the results of the National Forest Inventory (NFI, see 3.2.1). For estimates on above- and below-ground biomass in forests (forests in yield) national biomass functions (BF) have been applied. The biomass functions were derived from numerous single tree data from Austrian forest sites (literature see in 3.2.1). The estimates are carried out with all single tree data of the individual NFIs at the [Federal Research Centre for Forests \(BFW\)](#). Only the evergreen biomass of foliage is estimated (leaves of deciduous trees become part of the soil C pool within one year).

The results for each NFI have been attached to the year in the middle of a NFI period. Data for the years in between were calculated with linear interpolation.

Data on above- and below-ground biomass in protective forests without yield, from other wooded land and from trees and shrubs with a diameter less than 5 cm (in forests in yield) are available for the NFI 2007/09. This information was related to the particular forest areas in 2008 and calculated as biomass/ha. For the reported years 1990, 2000, 2005, 2010 and 2015 these data (biomass/ha) were multiplied with the interpolated or extrapolated data for each forest area. Data in table 3d therefore include all living biomass with a diameter > 0 cm.

Dead wood masses are also based on the results of the National Forest Inventory (NFI, see 3.2.1). To avoid any double accounting, only standing dead wood is included and the expansion does not include dead roots and branches.

### **Carbon stock**

Estimations and forecasting on carbon stock are based on data on biomass stocks and results of the Forest Soil Inventories (see 3.2.1). Concerning biomass and dead wood, national factors have been applied to convert biomass stock into carbon stock.

Conversion factors:

Living biomass (Forest): 0.49 (coniferous), 0.483 (deciduous)

Living biomass (OWL): 0.49 (coniferous)

Dead wood: 0.498 (coniferous), 0.484 (deciduous)

Soil carbon stock was calculated for the years 1990 and 2010. These data are based on the Forest Soil Inventory carried out in the late 1980ies and the EU-wide BioSoil project carried out in 2006/07. The methodologies of these two forest soil inventories differ mainly in the density of soil sampling plots (see 3.2.1) and the investigated soil depths (50 cm vs. 80 cm). Therefore the results can not be interpolated for the years 2000 and 2005, as this would lead to false trend analysis.

### 3.3.3 Reclassification

#### **Growing stock**

Table 3a:

FRA 2015 Growing stock = NFI Growing stock (forests in yield) - Dead wood trees + Estimated growing stock in protective forest without yield.

Table 3b:

Reclassification into FRA 2015 category is not possible. NFI growing stock definition is used:

Growing stock of the 10 most common tree species = Growing stock of the 10 most common tree species of forests in yield including dead wood trees. Growing stock in protective forests without yield is unaccounted for.

Category "Remaining" = Difference to total FRA 2015 Growing stock (Table 3a).

### Biomass stock

The calculations and data on biomass refer to the national definitions (see 3.2.2).

### Carbon stock

The calculations and data refer to the national definitions (see 3.2.2), as they are to a large extent comparable to the FRA categories.

## 3.4 Data

Table 3a

Category		Growing stock volume (million m <sup>3</sup> over bark)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
	Total growing stock	927	1067	1102	1129	1155	0	0	0	0	0
	... of which coniferous	764	866	890	909	927	0	0	0	0	0
	... of which broadleaved	163	201	212	220	228	0	0	0	0	0

Table 3b

Category/Species name	Growing stock in forest (million cubic meters)
-----------------------	--

Rank	Scientific name	Common name	1990	2000	2005	2010
1 st	<i>Picea abies</i>	Fichte	550	640	660	673
2 nd	<i>Fagus sylvatica</i>	Rotbuche	82	96	102	106
3 rd	<i>Pinus sylvestris</i>	Weißkiefer	73	74	73	72
4 th	<i>Larix decidua</i>	Europäische Lärche	62	70	71	72
5 th	<i>Abies alba</i>	Weißtanne	43	46	47	48
6 th	<i>Quercus</i> sp.	Eiche unbestimmt	21	25	26	27
7 th	<i>Fraxinus</i> sp.	Esche unbestimmt	12	18	21	23
8 th	<i>Acer</i> sp.	Ahorn unbestimmt	9	12	14	15
9 th	<i>Pinus nigra</i>	Schwarzkiefer	9	9	9	9
10 th	<i>Carpinus betulus</i>	Hainbuche	5	7	7	8
Remaining			61	70	72	91
TOTAL			927.00	1067.00	1102.00	1144.00

**THE PRE-FILLED VALUES FOR GROWING STOCK REFER TO THE FOLLOWING THRESHOLD VALUES (SEE TABLE BELOW)**

Item	Value	Complementary information
Minimum diameter (cm) at breast height of trees included in growing stock (X)	10	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	0	N/A
Minimum diameter (cm) of branches included in growing stock (W)	-1	Branches are not included.
Volume refers to above ground (AG) or above stump (AS)	AG	N/A

**PLEASE NOTE THAT THE DEFINITION OF GROWING STOCK HAS CHANGED AND SHOULD BE REPORTED AS GROWING STOCK DBH 10 CM INCLUDING THE STEM FROM GROUND LEVEL UP TO A DIAMETER OF 0 CM, EXCLUDING BRANCHES.**

Table 3c

Category	Net annual increment (m <sup>3</sup> per hectare and year)
	Forest

		1990	2000	2005	2010	2015
CFRQ	Net annual increment	7.2	8.2	7.1	7.1	7.1
CFRQ	... of which coniferous	5.8	6.6	5.6	5.6	5.6
CFRQ	... of which broadleaved	1.4	1.6	1.4	1.4	1.4

Table 3d

Category		Biomass (million metric tonnes oven-dry weight)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
CFRQ	Above ground biomass	545	599	617	628	639	3	3	4	4	4
CFRQ	Below ground biomass	141	155	159	161	162	1	1	1	1	1
CFRQ	Dead wood	6	8	10	12	15	N/A	N/A	N/A	N/A	N/A
TOTAL		692.00	762.00	786.00	801.00	816.00	4.00	4.00	5.00	5.00	5.00

Table 3e

Category		Carbon (Million metric tonnes)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
CFRQ	Carbon in above ground biomass	266	292	301	306	312	1.5	1.5	2	2	2
CFRQ	Carbon in below ground biomass	69	76	77	78	79	0.5	0.5	0.5	0.5	0.5
CFRQ	<i>Subtotal Living biomass</i>	335	368	378	385	391	2	2	2.4	2.4	2.4
CFRQ	Carbon in dead wood	3	4	5	6	7	N/A	N/A	N/A	N/A	N/A
CFRQ	Carbon in litter	0	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A

	<i>Subtotal Dead wood and litter</i>	3	4	5	6	7	N/A	N/A	N/A	N/A	N/A
	Soil carbon	463	N/A	N/A	585	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		801.00	372.00	383.00	975.00	398.00	2.00	2.00	2.50	2.50	2.50

## Tiers

Variable/category	Tier for status	Tier for trend
Total growing stock	Tier 3	Tier 3
Net annual increment	Tier 3	Tier 3
Above ground biomass	Tier 3	Tier 3
Below ground biomass	Tier 3	Tier 3
Dead wood	Tier 3	Tier 3
Carbon in above-ground biomass	Tier 3	Tier 3
Carbon in below ground biomass	Tier 3	Tier 3
Carbon in dead wood and litter	Tier 3	Tier 3
Soil carbon	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
Total growing stock	Tier 3: Data sources Recent 10 years National Forest Inventory or remote sensing with ground truthing or programme for repeated compatible NFI 10 years Domestic volume functions Tier 2: Data sources/registers and statistics modelling or old NFI 10 years or partial field inventory Tier 1: Other data sources	Tier 3: Estimate based on repeated compatible tiers 3 (tier for status) Domestic growth functions Tier 2: Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 tier for status Tier 1: Other
Net annual increment	Tier 3: Scientifically tested national volume and growth functions Tier 2: Selection of volume and growth functions as relevant as possible Tier 1: Other	Tier 3: Confirmation/adjustment of functions used through scientific work Tier 2: Review work done to seek alternative functions Tier: 1 Other

Biomass	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied or other domestic or otherwise nationally relevant biomass studies Tier 2: Application of country specific national or sub-national biomass conversion factors from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>• Carbon in above ground biomass</li> <li>• Carbon in below ground biomass</li> <li>• Carbon in dead wood and litter</li> <li>• Soil carbon</li> </ul>	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied Tier 2: Application of country specific national or sub-national biomass conversion factors form from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

### 3.5 Comments on growing stock biomass and carbon

Category	Comments related to data definitions etc	Comments on the reported trend
Total growing stock	Growing stock volume on OWL: Most OWL areas are located in higher altitudes and predominantly consist of pinus mugo or alnus viridis. These tree species normally don't reach a DBH $\geq$ 10cm. Therefore the OWL growing stock volume is assumed to be 0.	N/A
Growing stock of broadleaved coniferous	N/A	N/A
Growing stock composition	Growing stock of the 10 most common tree species = Growing stock of the 10 most common tree species of forests in yield including dead wood trees (Growing stock in protective forests without yield is unaccounted for.). Category "Remaining" = Difference to total FRA 2015 Growing stock (Table 3a).	N/A
Net annual increment	Method of estimation: repeated tree measurement.	See 3.3.2!
Above-ground biomass	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A
Below-ground biomass	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A
Dead wood	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A

Carbon in above-ground biomass	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A
Carbon in below-ground biomass	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A
Carbon in dead wood	Data for 2010 and 2015 are based on extrapolated NFI data and may change with new NFI results.	N/A
Carbon in litter	See 3.2.2!	N/A
Soil carbon	N/A	See 3.3.2!

**Other general comments to the table**

N/A

## 4. What is the status of forest production and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 4.1 Categories and definitions

Term	Definition
Primary designated function	The primary function or management objective assigned to a management unit either by legal prescription documented decision of the landowner/manager or evidence provided by documented studies of forest management practices and customary use.
Non wood forest product (NWFP)	Goods derived from forests that are tangible and physical objects of biological origin other than wood.
Commercial value of NWFP	For the purpose of this table, value is defined as the commercial market value at the forest gate.
Category	Definition
Production forest	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Multiple use forest	Forest area designated for more than one purpose and where none of these alone is considered as the predominant designated function.
Total wood removals	The total of industrial round wood removals and woodfuel removals.
...of which woodfuel	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

### 4.2 National data

#### 4.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Waldentwicklungsplan (Forest Development Plan), Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.	Key forest function areas (economic, protective, beneficial, recreational)	Status 1991, status 2009	No distinction between forests and OWL.
2	Forests in Protected Areas in Austria. Classification of Protected Forest Areas according to the Criteria of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) (SCHWARZL B. & AUBRECHT P., 2003). Federal Environment Agency Vienna. <a href="http://www.umweltbundesamt.at/news070314">http://www.umweltbundesamt.at/news070314</a>	Forest areas in protected areas according to MCPFE classification	2002	No distinction between forests and OWL.

3	Wald in Schutzgebieten – Update 2009 (Forests in Protected Areas – Update 2009. Classification of Protected Forest Areas according to the Criteria of the Ministerial Conference on the Protection of Forests in Europe (MCPFE)) (SCHWARZL B., 2009). Umweltbundesamt, Vienna.	Forest areas in protected areas according to MCPFE classification	2009	No distinction between forests and OWL.
4	Annual removals statistics (Holzeinschlagsmeldung), Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna	Removals	1990-2011	Removals from forests and OWL.
5	Austrian Federal Statistics for Agriculture and Forestry, Federal Institute for Statistic Austria, Vienna, annually	Game shot, honey production	2005	N/A
6	Information on Forests Seeds and Plants, Federal Forest Office, annually	Annual production of seeds and plants	2005	N/A
7	Austrian Distiller Statistics, unpublished	Fruit and berries used for distilling	2007	N/A
8	Research project on potentials of NTFP in Austria, Institute of Silviculture, BOKU Vienna	Various, according to products listed in Table 4b	2009	Research project gathering information on NTFP referenced to 2005 whenever possible.

#### 4.2.2 Classification and definitions

National class	Definition
Key forest function (The Forest Development Plan displays for the whole forest area the respective key forest function.)	The Austrian Forest Act defines four functions: economic, protective, beneficial and recreational function. The key forest function is those with the prior public benefit.
- Economic function	i.e. in particular the economically sustained production of wood as a raw material ... is equivalent to FRA 2015 category “Production”
- Protective function	i.e. in particular protection against elementary risks and harmful environmental influences as well as maintaining the strength of the soil against soil rainwash and soil drift, scree-formation and landslips ... is equivalent to FRA 2010 sub-category “Protection of soil” (forest area designated primarily for protection of soil)
- Beneficial function	i.e. the influence on the environment, especially on balancing the climate and the water regime, cleaning and renewing air and water ... is equivalent to FRA 2010 sub-category “Protection of water” (forest area designated primarily for protection of soil)
- Recreational function	i.e. in particular the effect of the forest as a recreational area on visitors to the forest ... is equivalent to FRA 2015 category “Ecosystem services (public recreation)”

Forests in Protected Areas MCPFE classes 1.1 + 1.2 + 1.3 (= MCPFE class 1.x)	... is equivalent to FRA 2015 category “Conservation of biodiversity
Removals	... include removals from forests and OWL
NWFP: Forest plants	... include plants from forest nurseries outside forests and OWL

#### 4.2.3 Original data

**Table 4a:**

**Forest Development Plan:**

Presenting and describing all of Austria’s forests, the Forest Development Plan currently provides the most important tool for assessing forest functions of public interest. Pursuant to the provisions of the Austrian Forestry Act, the forest functions as defined there are demarcated as “function areas” on the basis of expert opinions provided by the provincial forest services. The function areas are then entered into a working map on a scale of 1:50,000. The four key functions of the forest are its economic, protective, beneficial and recreational function (definitions see 4.2.2!). A description of the respective function area (on areas of more than 10 hectares performing a key function) is provided in the text section of the Forest Development Plan. If necessary, measures are defined to enhance or sustainably ensure the relevant key function. Since 1990, the Forest Development Plan has been publicly available. Updates take place periodically.

1991

<b>Key forest function'(Forest Development'Plan)</b>	<b>km<sup>2</sup></b>	<b>%</b>	<b>Equivalent to FRA 2015 category</b>
Economic function	22,172.92	69.42	Production
Protective function	8,351.03	26.14	
Beneficial function	1,116.78	3.50	
Recreational function	299.68	0.94	Ecosystem services (public recreation)
TOTAL Forest area according to Forest Development Plan	31,940.41	100.00	

2002

	<b>km<sup>2</sup></b>	<b>%</b>	<b>Equivalent to FRA 2015 category</b>

Total Forest Area according to ÖK50 (Austrian Map 1:50,000)	38,835	100.00	
Forests in Protected Areas	10,191		
MCPFE class 1.x (1.1 + 1.2 + 1.3)	1,167	3.005	Conservation of biodiversity
MCPFE class 1.1	0		
MCPFE class 1.2	281		
MCPFE class 1.3	885		
MCPFE class 2	9,025		

1991x2002

<b>Intersection</b>	<b>km<sup>2</sup></b>	<b>%</b>	<b>Equivalent to FRA 2015 category</b>
Class (MCPFE) 1.x x Economic key function	247.03	25.49	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	630.87	65.10	
Class (MCPFE) 1.x x Beneficial key function	84.19	8.69	
Class (MCPFE) 1.x x Recreational key function	6.94	0.72	Conservation of biodiversity
TOTAL	969.03	100.00	

2009

<b>Key forest function'(Forest Development'Plan)</b>	<b>km<sup>2</sup></b>	<b>%</b>	<b>Equivalent to FRA 2015 category</b>
Economic function	24,101.97	62.49	Production

Protective function	11,491.10	29.79	
Beneficial function	2,604.64	6.75	
Recreational function	373.51	0.97	Ecosystem services (public recreation)
TOTAL categorised forest area according to Forest Development Plan	38,571.22	100.00	

2009

	km <sup>2</sup>	%	Equivalent to FRA 2015 category
Total Forest Area according to ÖK50 (Austrian Map 1:50,000)	38,773	100.00	
Forests in Protected Areas – SUM	6,586		
MCPFE class 1.x (1.1 + 1.2 + 1.3)	2,912	7.51	Conservation of biodiversity
MCPFE class 1.1	0		
MCPFE class 1.2	322		
MCPFE class 1.3	2,590		
MCPFE class 2	3,674		

2009x2009

Intersection	km <sup>2</sup>	%	Equivalent to FRA 2015 category
Class (MCPFE) 1.x x Economic key function	1,028.65	36.16	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	1,302.01	45.77	

Class (MCPFE) 1.x x Beneficial key function	491.62	17.28	
Class (MCPFE) 1.x x Recreational key function	22.44	0.79	Conservation of biodiversity
TOTAL	2,844.72	100.00	

### 4.3 Analysis and processing of national data

#### 4.3.1 Adjustment

**Table 4a:**

1990 (1991)

The percentages from 1991 (Forest Development Plan) have been applied to the forest area for 1990 from Question 1. No protected areas data (conservation of biodiversity) are available.

Key forest function '(Forest Development Plan)	%	1000 hectares	Equivalent to FRA 2015 category
Economic function	69.42	2,621.30	Production
Protective function	26.14	987.05	
Beneficial function	3.50	132.16	
Recreational function	0.94	35.49	Ecosystem services (public recreation)
<b>Forest area in 1990 according to Table 1a</b>	<b>100.00</b>	<b>3,776.00</b>	

2000 (1991x2002)

The percentages from 1991 (Forest Development Plan) and 2002 (Protected areas) have been applied to the forest area for 2000 from Question 1.

Key forest function '(Forest Development Plan)	%	1000 hectares	Equivalent to FRA 2015 category
Economic function	69.42	2,664.34	Production

Protective function	26.14	1,003.25	
Beneficial function	3.50	134.33	
Recreational function	0.94	36.08	Ecosystem services (public recreation)
<b>Forest area in 2000 according to Table 1a</b>	<b>100.00</b>	<b>3,838.00</b>	

	%	km <sup>2</sup>	%	Equivalent to FRA 2015 category
<b>Class (MCPFE) 1.x</b>	<b>100.00</b>	<b>1,167</b>	<b>3.005</b>	
Class (MCPFE) 1.x x Economic key function	25.49	297.47	0.766	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	65.10	759.72	1.956	
Class (MCPFE) 1.x x Beneficial key function	8.69	101.41	0.261	
Class (MCPFE) 1.x x Recreational key function	0.72	8.40	0.022	Conservation of biodiversity
<b>Total Forest Area according to ÖK50 (Austrian Map 1:50,000)</b>		<b>38,835</b>	<b>100.00</b>	

	%	1000 hectares	Equivalent to FRA 2015 category
<b>Class (MCPFE) 1.x</b>	<b>3.005</b>	<b>115.33</b>	
Class (MCPFE) 1.x x Economic key function	0.766	29.40	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	1.956	75.07	

Class (MCPFE) 1.x x Beneficial key function	0.261	10.02	
Class (MCPFE) 1.x x Recreational key function	0.022	0.84	Conservation of biodiversity
<b>Forest area in 2000 according to Table 1a</b>	<b>100.00</b>	<b>3,838.00</b>	

2005 + 2010 + 2015 (2009x2009)

The percentages from 2009 (Forest Development Plan) and 2009 (Protected areas) have been applied to the forest area for 2005, 2010 and 2015 from Question 1.

<b>Key forest function'(Forest Development'Plan)</b>	<b>%</b>	<b>1000 hectares</b>	<b>Equivalent to FRA 2015 category</b>
Economic function	62.49	2,406.49	Production
Protective function	29.79	1,147.21	
Beneficial function	6.75	259.94	
Recreational function	0.97	37.36	Ecosystem services (public recreation)
<b>Forest area in 2005 according to Table 1a</b>	<b>100.00</b>	<b>3,851.00</b>	

<b>Key forest function'(Forest Development'Plan)</b>	<b>%</b>	<b>1000 hectares</b>	<b>Equivalent to FRA 2015 category</b>
Economic function	62.49	2,412.12	Production
Protective function	29.79	1,149.89	
Beneficial function	6.75	260.55	
Recreational function	0.97	37.44	Ecosystem services (public recreation)
<b>Forest area in 2010 according to Table 1a</b>	<b>100.00</b>	<b>3,860.00</b>	

<b>Key forest function'(Forest Development'Plan)</b>	<b>%</b>	<b>1000 hectares</b>	<b>Equivalent to FRA 2015 category</b>
Economic function	62.49	2,417.74	Production
Protective function	29.79	1,152.57	
Beneficial function	6.75	261.16	
Recreational function	0.97	37.53	Ecosystem services (public recreation)
<b>Forest area in 2015 according to Table 1a</b>	<b>100.00</b>	<b>3,869.00</b>	

	<b>%</b>	<b>km<sup>2</sup></b>	<b>%</b>	<b>Equivalent to FRA 2015 category</b>
<b>Class (MCPFE) 1.x</b>	<b>100.00</b>	<b>2,912</b>	<b>7.510</b>	
Class (MCPFE) 1.x x Economic key function	36.16	1,052.98	2.716	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	45.77	1,332.82	3.437	
Class (MCPFE) 1.x x Beneficial key function	17.28	503.19	1.298	
Class (MCPFE) 1.x x Recreational key function	0.79	23.01	0.059	Conservation of biodiversity
<b>TotalForest Area according to ÖK50 (Austrian Map 1:50,000)</b>		<b>38,773</b>	<b>100</b>	

	<b>%</b>	<b>1000 hectares</b>	<b>Equivalent to FRA 2015 category</b>
--	----------	----------------------	--

<b>Class (MCPFE) 1.x</b>	<b>7.510</b>	<b>289.21</b>	
Class (MCPFE) 1.x x Economic key function	2.716	104.59	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	3.437	132.36	
Class (MCPFE) 1.x x Beneficial key function	1.298	49.99	
Class (MCPFE) 1.x x Recreational key function	0.059	2.27	Conservation of biodiversity
<b>Forest area in 2005 according to Table 1a</b>	<b>100.00</b>	<b>3,851.00</b>	

	%	1000 hectares	Equivalent to FRA 2015 category
<b>Class (MCPFE) 1.x</b>	<b>7.510</b>	<b>289.89</b>	
Class (MCPFE) 1.x x Economic key function	2.716	104.84	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	3.437	132.67	
Class (MCPFE) 1.x x Beneficial key function	1.298	50.10	
Class (MCPFE) 1.x x Recreational key function	0.059	2.28	Conservation of biodiversity
<b>Forest area in 2010 according to Table 1a</b>	<b>100.00</b>	<b>3,860.00</b>	

	%	1000 hectares	Equivalent to FRA 2015 category
<b>Class (MCPFE) 1.x</b>	<b>7.510</b>	<b>290.56</b>	
Class (MCPFE) 1.x x Economic key function	2.716	105.08	Conservation of biodiversity
Class (MCPFE) 1.x x Protective key function	3.437	132.98	

Class (MCPFE) 1.x x Beneficial key function	1.298	50.22	
Class (MCPFE) 1.x x Recreational key function	0.059	2.28	Conservation of biodiversity
<b>Forest area in 2015 according to Table 1a</b>	<b>100.00</b>	<b>3,869.00</b>	

#### 4.3.2 Estimation and forecasting

##### **Table 4a:**

1990, 2000, 2005, 2010 and 2015: All available relevant national data refer to the combined area of forest + OWL. FRA 2015 Table 4a refers to forest area only. Therefore, it is assumed that the conditions on forest area are the same as on forest + OWL area.

1990: 1991 “Forest Development Plan” data are used without extrapolation.

2000: 1991 “Forest Development Plan” and 2002 “Forests in protected areas” data are used without any extra- or interpolation.

2005, 2010 and 2015: 2009 “Forest Development Plan” and 2009 “Forests in protected areas” data are used without any extra- or interpolation.

##### **Table 4b:**

Expert estimations have been used in case of incomplete data, the definition of shares, or the identification of prices in the following cases:

Wild meat – Results calculated from game shot numbers multiplied by estimated average amount of meat per animal and game class.

Wild honey – Estimated share of wild honey on total honey production (50% of total).

Skins, hides and trophies are calculated by estimated share of total game shot: approx. 10% of hides are further processed in tannery, approx. 10% of total shot game (specific to different classes such as age, sex, etc.) is

potentially used for trophies. Total value of trophies is based on numbers for individual shot allowances (90% of total allowances).

### 4.3.3 Reclassification

#### Table 4a:

The breakdown of forest area was done according to the Forest Development Plan key functions (economic, protective, beneficial and recreational function). Areas dedicated for conservation of biodiversity were generated (for 2000, 2005 and 2010) by intersection of Forest Development key functions and MCPFE protected forest area class 1.x according to following prioritisation rule:

1. Protective key function and beneficial key function (Protection of soil and water (FRA 2010))
2. Class (MCPFE) 1.x (Conservation of biodiversity)
3. Recreation key function ( Ecosystem services (public recreation) )
4. Economic key function (Production)

#### 1990

Production = **2,621.30**

Protection of soil and water (FRA 2010) =  $987.05 + 132.16 = \mathbf{1,119.21}$

Conservation of biodiversity = **n. a.**

Ecosystem services (public recreation) = **35.49**

#### 2000

Production =  $2,664.34 - 29.40 = \mathbf{2,634.94}$

Protection of soil and water (FRA 2010) =  $1,003.25 + 134.33 = \mathbf{1,137.58}$

Conservation of biodiversity =  $29.40 + 0.84 = \mathbf{30.24}$

Ecosystem services (public recreation) =  $36.08 - 0.84 = \mathbf{35.24}$

#### 2005

Production =  $2,406.49 - 104.59 = \mathbf{2,301.90}$

Protection of soil and water (FRA 2010) =  $1,147.21 + 259.94 = \mathbf{1,407.15}$

Conservation of biodiversity =  $104.59 + 2.27 = \mathbf{106.86}$

Ecosystem services (public recreation) =  $37.36 - 2.27 = 35.09$

## 2010

Production =  $2,412.12 - 104.84 = 2,307.28$

Protection of soil and water (FRA 2010) =  $1,149.89 + 260.55 = 1,410.44$

Conservation of biodiversity =  $104.84 + 2.28 = 107.12$

Ecosystem services (public recreation) =  $37.44 - 2.28 = 35.16$

## 2015

Production =  $2,417.74 - 105.08 = 2,312.66$

Protection of soil and water (FRA 2010) =  $1,152.57 + 261.16 = 1,413.73$

Conservation of biodiversity =  $105.08 + 2.28 = 107.36$

Ecosystem services (public recreation) =  $37.53 - 2.28 = 35.25$

## 4.4 Data

Table 4a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	2621	2635	2302	2307	2313
	Multiple use forest	0	0	0	0	0

Table 4b

Rank	Name of product	Key species	Commercial value of NWFP removals 2010 (value 1000 local currency)	NWFP category
1 st	Christmas trees	Nordmann Fir	52325	6
2 nd	Wild meat	Roe deer	22408	12
3 rd	Wild honey	N/A	17416	11
4 th	Forest plants	Spruce	11232	8

5 th	Skins, hides and trophies	Roe deer	5800	10
6 th	Forest seeds	Spruce	3092	8
7 th	Mushrooms	Chanterelle	2600	1
8 th	Fruits and berries	Mountain ash	460	1
9 th	Resins	Austrian pine	196	3
10 th	Raw material for aromatic oil	Swiss stone pine	25	3
TOTAL			115554.00	

2010	
Name of local currency	euro

Category
<b>Plant products / raw material</b>
1 Food
2 Fodder
3 Raw material for medicine and aromatic products
4 Raw material for colorants and dyes
5 Raw material for utensils handicrafts construction
6 Ornamental plants
7 Exudates
8 Other plant products
<b>Animal products / raw material</b>
9 Living animals
10 Hides skins and trophies
11 Wild honey and beewax
12 Wild meat
13 Raw material for medicine

14 Raw material for colorants
15 Other edible animal products
16 Other non-edible animal products

Table 4c Pre-filled data from FAOSTAT

Year	FRA 2015 category (1000 m <sup>3</sup> u.b.)	
	Total wood removals	...of which woodfuel
1990	15732.545	2792.74
1991	11492.028	2437.397
1992	12249.23	2994.363
1993	12255.894	3149.085
1994	14359.636	3259.206
1995	13805.755	3059.216
1996	15010.236	3797.281
1997	14725.794	3423.316
1998	14033.478	3175.572
1999	14083.908	3095.596
2000	13276.255	2859.935
2001	13466.525	2905.316
2002	14845.44	3035.971
2003	17055.236	3336.173
2004	16483.387	3539.636
2005	16470.661	3685.17
2006	19134.863	4704.651
2007	21317.341	4796.377
2008	21795.428	5023.689
2009	16727.438	4583.553
2010	17830.955	4549.512

2011	18695.671	5065.139
------	-----------	----------

## Tiers

Category	Tier for status	Tier for reported trend
Production forest	Tier 3	Tier 3
Multiple use forest	Tier 3	Tier 3

## Tier Criteria

Category	Tier for status	Tier for reported trend
Production forest Multiple use forest	Tier 3: Updated including field verifications national forest maps including functions Tier 2: Forest maps older than 6 years including forest functions Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 4.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Production forest	N/A	Changes from 2005 to 2015 are only due to changes in total forest area.
Multiple use forest	N/A	N/A
Total wood removals	N/A	From 2006, the minimum diameter (> = 7cm) for detection of removals was repealed. This in order to enable a proper detection of forest wood chips.
Commercial value of NWFP	Information is provided for marketed non-timber forest products (NTFP), the subsistence use of NTFP is not covered except for 'game meat'. All results have been produced by the use of statistics, information from associations and analysis of main traders and producers. Direct marketing initiatives are not covered in the current reporting. All values are calculated by means of average prices paid to producers in 2005 (fruit and berries: 2007), except expert estimations for 'trophies' which are based on shot allowances.	2005 data are reported, except fruit and berries (2007)

## Other general comments to the table

N/A

## 5. How much forest area is managed for protection of soil and water and ecosystem services?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 5.1 Categories and definitions

Category	Definition
Protection of soil and water	Forest area designated or managed for protection of soil and water
...of which production of clean water ( <i>sub-category</i> )	Forest area primarily designated or managed for water production, where most human uses are excluded or heavily modified to protect water quality.
...of which coastal stabilization ( <i>sub-category</i> )	Forest area primarily designated or managed for coastal stabilization.
...of which desertification control ( <i>sub-category</i> )	Forest area primarily designated or managed for desertification control.
...of which avalanche control ( <i>sub-category</i> )	Forest area primarily designated or managed to prevent the development or impact of avalanches on human life assets or infrastructure.
...of which erosion, flood protection or reducing flood risk ( <i>sub-category</i> )	Forest area primarily designated or managed for protecting communities or assets from the impacts of erosion riparian floods and landslides or for providing flood plain services.
...of which other ( <i>sub-category</i> )	Forest area primarily designated or managed for other protective functions.
Ecosystem services, cultural or spiritual values	Forest area primarily designated or managed for selected ecosystem services or cultural or spiritual values.
...of which public recreation ( <i>sub-category</i> )	Forest area designated or managed for public recreation.
...of which carbon storage or sequestration ( <i>sub-category</i> )	Forest area designated or managed for carbon storage or sequestration.
...of which spiritual or cultural services ( <i>sub-category</i> )	Forest area designated or managed for spiritual or cultural services.
...of which other ( <i>sub-category</i> )	Forest area designated or managed for other ecosystem services.

### 5.2 National data

#### 5.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments

1	Waldentwicklungsplan (Forest Development Plan), Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.	Key forest function areas (economic, protective, beneficial, recreational)	Status 1991, status 2009	No distinction between forests and OWL.
2	Forest Act 1975, §1 (2) together with §6 (2)	Protection of soil and water	1990, 2000, 2005, 2010, 2015	This Federal Act aims at 1. preserving forests and forest soils, 2. ensuring that the forest is treated in a way that the productive capacity of the soil is maintained and that its effects (economic, protective, beneficial and recreational) are sustainably preserved, and 3. guaranteeing a sustainable forest management. I.e. all forests should fulfill all four functions.
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 5.2.2 Classification and definitions

National class	Definition
protective function (Forest Development Plan)	i.e. in particular protection against elementary risks and harmful environmental influences as well as maintaining the strength of the soil against soil rainwash and soil drift, scree-formation and landslips
beneficial function (Forest Development Plan)	i.e. the influence on the environment, especially on balancing the climate and the water regime, cleaning and renewing air and water
recreational function (Forest Development Plan)	i.e. in particular the effect of the forest as a recreational area on visitors to the forest
productive function (Forest Development Plan)	i.e. in particular the economically sustained production of wood as a raw material
key function (Forest Development Plan)	The function (productive, protective, beneficial or recreational), which is of primary public interest.

### 5.2.3 Original data

See 4.2.3.
------------

## 5.3 Analysis and processing of national data

### 5.3.1 Adjustment

See 4.3.1.

### 5.3.2 Estimation and forecasting

See 4.3.2.

### 5.3.3 Reclassification

Protection of soil and water: Total forest area is reported.

... of which production of clean water: Forest Development Plan key function area "beneficial function" is reported.

... of which avalanche control: Included in category "... of which erosion, flood protection or reducing flood risk".

... of which erosion, flood protection or reducing flood risk: Forest Development Plan key function area "protective function" is reported. Includes category "... of which avalanche control".

... of which public recreation: Forest Development Plan key function area "recreational function" is reported.

## 5.4 Data

Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
	Protection of soil and water	3776	3838	3851	3860	3869
	... of which production of clean water	132	134	260	261	261
	... of which coastal stabilization	0	0	0	0	0
	... of which desertification control	0	0	0	0	0
	... of which avalanche control	N/A	N/A	N/A	N/A	N/A

	... of which erosion, flood protection or reducing flood risk	987	1003	1147	1150	1153
	... of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

**Other**

N/A

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values					
...of which public recreation	35	35	35	35	35
...of which carbon storage or sequestration	0	0	0	0	0
...of which spiritual or cultural services	N/A	N/A	N/A	N/A	N/A
...of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

Tiers

Category	Tier for reported trend	Tier for status
Protection of soil and water	Tier 3	Tier 3
Ecosystem services, cultural or spiritual values	Tier 3	Tier 3

Tier criteria

Category	Tier for status	Tier for reported trend
----------	-----------------	-------------------------

Protection of soil and water	Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations or legislation relating to soil and water protection. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>• Cultural or spiritual values</li> <li>• Public recreation</li> <li>• Spiritual or cultural services</li> <li>• Other</li> </ul>	Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 5.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Protection of soil and water	Total forest area is reported. Due to the Forest Act, efforts should be made for all forests to be available to an extent and a quality such that all its defined effects (namely the productive, the protective, the beneficial and the recreational effects) are best applied and safeguarded.	N/A
Production of clean water	N/A	N/A
Coastal stabilization	Not relevant. Austria is a land-locked country.	N/A
Desertification control	Desertification is not a relevant problem in Austria.	N/A
Avalanche control	Included in category "Erosion, flood protection or reducing flood risk".	N/A
Erosion, flood protection or reducing flood risk	Includes category "Avalanche control".	N/A
Other protective functions	N/A	N/A
Ecosystem services, cultural or spiritual values	N/A	N/A
Public recreation	Forest Development Plan key function area "recreational function" is reported. [In addition to it, the Forest Act allows all people as a basic principle, to access all forests for recreational purposes. Only a few forest areas e.g. young stands are exempted from this permission.]	N/A

Carbon storage or sequestration	N/A	N/A
Spiritual or cultural services	N/A	N/A
Other ecosystem services	N/A	N/A

<b>Other general comments to the table</b>		
N/A		

## 6. How much forest area is protected and designated for the conservation of biodiversity and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 6.1 Categories and definitions

Category	Definition
Conservation of biodiversity	Forest area designated primarily for conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.

### 6.2 National data

#### 6.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forests in Protected Areas in Austria. Classification of Protected Forest Areas according to the Criteria of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) (SCHWARZL B. & AUBRECHT P., 2003). Federal Environment Agency Vienna. <a href="http://www.umweltbundesamt.at/news070314">http://www.umweltbundesamt.at/news070314</a>	Forest areas in protected areas according to MCPFE classification	2002	No distinction between forests and OWL.
2	Wald in Schutzgebieten – Update 2009 (Forests in Protected Areas – Update 2009. Classification of Protected Forest Areas according to the Criteria of the Ministerial Conference on the Protection of Forests in Europe (MCPFE)) (SCHWARZL B., 2009). Umweltbundesamt, Vienna.	Forest areas in protected areas according to MCPFE classification	2009	No distinction between forests and OWL.
3	Waldentwicklungsplan (Forest Development Plan), Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.	Key forest function areas (economic, protective, beneficial, recreational)	Status 1991, status 2009	No distinction between forests and OWL.
4	N/A	N/A	N/A	N/A

## 6.2.2 Classification and definitions

National class	Definition
Forests in Protected Areas MCPFE classes 1.1 + 1.2 + 1.3 (= MCPFE class 1.x)	Main Management Objective "Biodiversity" (1.1 = no active intervention, 1.2 = minimum intervention, 1.3 = conservation through active management)
Forests in Protected Areas MCPFE class 2	Main Management Objective "Protection of Landscapes and Specific Natural Elements"
N/A	N/A
N/A	N/A

## 6.2.3 Original data

See 4.2.3.

## 6.3 Analysis and processing of national data

### 6.3.1 Adjustment

See 4.3.1.

### 6.3.2 Estimation and forecasting

See 4.3.2.

### 6.3.3 Reclassification

See 4.3.3.

## 6.4 Data

Table 6

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Conservation of biodiversity	N/A	30	107	107	107

	Forest area within protected areas	N/A	1019	659	659	659
---	------------------------------------	-----	------	-----	-----	-----

## Tiers

Category	Tier for status	Tier for reported trend
Conservation of biodiversity	Tier 3	Tier 3
Forest area within protected areas	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
<ul style="list-style-type: none"> <li>Conservation of biodiversity</li> <li>Forests within protected areas</li> </ul>	Tier 3: Data obtained from national or state agencies responsible for conservation and protected area or legislation relating to area protection. Tier 2: Studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates Tier 1 Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Conservation of biodiversity	Includes forest area within protected areas corresponding to MCPFE classes 1.1, 1.2 and 1.3 minus areas with protective or beneficial key forest function according to the Forest Development Plan.	N/A
Forest area within protected areas	Includes forest area within protected areas corresponding to MCPFE classes 1.1, 1.2, 1.3 and 2. The reason for including MCPFE class 2 is due to the fact that the study (see 6.2.1 first source!) showed that many MCPFE class 2 areas are in IUCN category IV.	The main reason for the decline between the assessments 2002 and 2009 are legal changes in Styria concerning landscape protection areas (MCPF class 2). Forest management is no longer restricted in Styrian landscape protection areas.

## Other general comments to the table

N/A
-----

## 7. What is the area of forest affected by woody invasive species?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 7.1 Categories and definitions

Category	Definition
Invasive species	Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health.

### 7.2 National data

#### 7.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	ESSL, F. & RABITSCH, W. (2002): Neobiota in Österreich, Umweltbundesamt, Wien; STARLINGER, F., BFW, Vienna, 2009: oral information	List of most important woody invasive species	N/A	N/A
2	National Forest Inventory (BFW)	Forest area of woody invasive species	2001, 2008	Assessment periods 2000/02 and 2007/09
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 7.2.2 Classification and definitions

National class	Definition
N/A	N/A

#### 7.2.3 Original data

--

### 7.3 Analysis and processing of national data

## 7.3.1 Adjustment

Not needed.
-------------

## 7.3.2 Estimation and forecasting

Not needed.
-------------

## 7.3.3 Reclassification

Not needed
------------

## 7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	2010
Robinia (Robinien)	46	52
Populus sp.(X) (canadensis) (Hybridpappel)	16	16
Quercus rubra (Roteiche)	15	15
Acer negundo (Eschenahorn)	9	13
Ailanthus (Götterbaum)	5	9
N/A	N/A	N/A
Total	91	105

## Tiers

Category	Tier for status	Tier for reported trend
Invasive species	Tier 3	Tier 3

## Tier Criteria

Category	Tier for status	Tier for reported trend
Invasive species	Tier 3: Systematic assessment in forest inventory or other survey (e.g. by conservation department) within the last 5 years) Tier 2: Systematic assessment in forest inventory or other survey (e.g. by conservation department conducted more than 5 years ago) Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 7.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Invasive species	The five most important woody invasive species are reported. "Total" is the sum of the five reported species, not the sum of all woody invasive species. Reported data refer to the years 2001 (NFI 2000/02) and 2008 (NFI 2007/09).	N/A

## Other general comments to the table

N/A

## 8. How much forest area is damaged each year?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 8.1 Categories and definitions

Category	Definition
Number of fires	Number of fires per year
Burned area	Area burned per year
Outbreaks of insects	A detectable reduction in forest health caused by a sudden increase in numbers of harmful insects.
Outbreaks of diseases	A detectable reduction in forest health caused by a sudden increase in numbers of harmful pathogens, such as bacteria, fungi, phytoplasma or virus.
Severe weather events	Damage caused severe weather events, such as snow, storm, drought, etc.

### 8.2 National data

#### 8.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Dokumentation der Waldschädigungsfaktoren (DWF; documentation of forest damage factors), Federal Research Center for Forests (BFW), Vienna, 2013, <a href="http://bfw.ac.at">http://bfw.ac.at</a>	Insects, diseases, severe weather events	2002-2012	Based on enquiries and estimations made by local forest authorities. <a href="http://bfw.ac.at/rz/bfwcms.web?dok=9605">http://bfw.ac.at/rz/bfwcms.web?dok=9605</a>
2	Waldbrand-Datenbank Österreich (Austrian Fire Database), Institut für Waldbau, Universität für Bodenkultur, Wien; <a href="http://fire.boku.ac.at">http://fire.boku.ac.at</a>	Fire	2003-2012	Vacik H.; Arndt N.; Arpaci A.; Koch V.; Müller M. M.; Gossow H. (2011): Characterisation of forest fires in Austria. Austrian Journal of Forest Science, Heft 1, S. 1-70. <a href="http://www.forestscience.at/fileadmin/user_upload/CB_1_2011_T1_Abstr.pdf">http://www.forestscience.at/fileadmin/user_upload/CB_1_2011_T1_Abstr.pdf</a>
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 8.2.2 Classification and definitions

National class	Definition
----------------	------------

Forest fire	Number of forest fires and area (forests + OWL) damaged by forest fire
N/A	N/A
N/A	N/A
N/A	N/A

## 8.2.3 Original data

**Table 8b:**

Documentation of forest damage factors (extract):

Name of damage factor		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>8-toothed spruce bark beetle</b>	damaged timber (1000 m <sup>3</sup> )	546	1485	1945	2149	1954	1738	1563	2471	2351	1376	702
Buchdrucker	total affected area (1000 ha)	131.713	214.921	245.638	182.383	195.183	142.027	166.348	193.432	152.939	175.947	144.876
Ips typographus	reduced affected area = damaged area (1000 ha)	6.113	29.998	20.123	21.134	13.543	13.109	9.123	9.130	9.288	6.569	4.195
	<b>Damaged area: SUM 2003-2011 (1000 ha)</b>										<b>132.017</b>	

<b>Small 6-toothed spruce bark beetle</b>	damaged timber (1000 m <sup>3</sup> )	95	438	344	279	324	293	271	332	319	171	134
Kupferstecher	total affected area (1000 ha)	73.091	126.149	115.469	84.462	88.247	74.503	85.715	87.503	89.765	94.246	89.916
Pityogenes chalcographus	reduced affected area = damaged area (1000 ha)	2.407	8.109	6.864	7.004	5.596	8.098	3.142	2.958	2.579	2.083	2.476
	<b>Damaged area: SUM 2003-2010 (1000 ha)</b>									<b>44.350</b>		
<b>Gregarious spruce sawfly</b>												
Kleine Fichtenblattwespe	total affected area (1000 ha)	32.720	30.621	46.173	15.504	6.613	6.146	2.821	4.980	4.169	5.566	4.731
Pristiphora abietina	reduced affected area = damaged area (1000 ha)	22.899	18.046	22.857	9.606	3.007	1.347	384	300	336	1.021	888
	<b>Damaged area: SUM 2002-2005 (1000 ha)</b>				<b>73.408</b>							
<b>Larch casebearer</b>												

Lärchen- miniermotte	total affected area (1000 ha)	16.770	15.354	18.181	43.658	8.894	5.319	10.029	19.001	21.932	14.202	9.524
Coleophora laricella	reduced affected area = damaged area (1000 ha)	3.221	4.676	5.588	12.874	2.676	1.302	2.634	7.472	6.245	5.327	2.570
<b>Larch gall midge</b>												
Lärchen- knospengallmücke	total affected area (1000 ha)										16.360	776
Dasineura kellneri	reduced affected area = damaged area (1000 ha)										1.466	109
<b>Larch needle adelgids</b>												
Lärchen- nadel- knicklaus	total affected area (1000 ha)										9.233	9.520
Adelges genicula- tus, Adelges laricis, Sacchi- phantas viridis	reduced affected area = damaged area (1000 ha)										1.394	1.336
	<b>Damaged area: SUM 2009-2011 (1000 ha)</b>										<b>21.903</b>	

<b>Dieback of ash</b>												
Eschen-Triebsterben	total affected area (1000 ha)								89.471	104.115	130.123	102.398
Hymenoscypus pseudoalbidus	reduced affected area = damaged area (1000 ha)								18.012	22.104	48.663	35.060
	<b>Damaged area: SUM 2009-2012 (1000 ha)</b>											<b>123.838</b>
<b>Root rot on conifers</b>	damaged timber (1000 m <sup>3</sup> )	555	509	538	487	490	491	447	359	370	350	353
Wurzelfäule	total affected area (1000 ha)											
Heterobasidion spp.	reduced affected area = damaged area (1000 ha)											49.000 *)
	<b>Damaged area: SUM 2012 (1000 ha)</b>											<b>49.000</b>

<b>Lirula-Needle cast of spruce &amp; Needle diseases of spruce</b>													
Fichten-nadelpilze	total affected area (1000 ha)	16363	22479	16299	37443	31688	16382	12143	36945	79409	48320	26969	
Lirula, Lophodermium, Tiarosporella, Rhizosphaera spp.	reduced affected area = damaged area (1000 ha)	6.673	9.766	5.234	12.984	11.358	4.416	4.389	18.464	42.355	18.722	6.739	
	<b>Damaged area: SUM 2009-2011 (1000 ha)</b>										<b>79.541</b>		
Windthrow and windbreak	damaged timber (1000 m <sup>3</sup> )	5599	962	904	453	784	7895	9776	1301	669	410	766	
Windwurf und Windbruch	total affected area (1000 ha)	271.221	143.032	195.292	93.501	104.163	251.170	448.850	75.925	73.158	79.272	59.003	
	reduced affected area = damaged area (1000 ha)	21.396	9.943	14.152	5.890	4.665	29.131	35.990	5.693	2.871	4.629	3.128	
	<b>Damaged area: SUM 2007-2008 (1000 ha)</b>							<b>65.121</b>					

<b>Damage by snow and ice</b>	damaged timber (1000 m³)	438	264	184	292	1940	1159	505	414	151	120	467
Schneebruch, Eisanhang und Raureif	total affected area (1000 ha)	87.581	58.334	66.540	35.434	122.564	118.267	52.505	69.183	46.278	38.494	36.324
	reduced affected area = damaged area (1000 ha)	3.803	3.935	7.850	2.853	15.019	7.451	2.950	3.270	1.782	2.578	2.247
	<b>Damaged area: SUM 2006-2007 (1000 ha)</b>						<b>22.470</b>					
<b>Drought and Heat damage</b>												
Dürre- und Hitzeschäden	total affected area (1000 ha)	16088	196.591	56910	19497	27294	32.657	5696	1647,5	6148	7141	1902
	reduced affected area = damaged area (1000 ha)	971,61	21.563	5805,15	1055,17	1264,4	750	110,42	76,49	2501,3	1314,94	238,09
	<b>Damaged area: SUM 2003 (1000 ha)</b>		<b>21.563</b>									

*) rough expert estimation based on the damaged timber volume and several assumptions											
---	--	--	--	--	--	--	--	--	--	--	--

### 8.3 Analysis and processing of national data

#### 8.3.1 Adjustment

--

#### 8.3.2 Estimation and forecasting

--

#### 8.3.3 Reclassification

--

### 8.4 Data

Table 8a

Category		000 ha, number of fires									
		2003		2004		2005		2006		2007	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which forest area burned	0.19	148	0.02	44	0.01	48	0.09	79	0.06	157
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	0.09	147	0.12	262	0.19	341

	... of which forest area burned	0.03	90	0.07	89	0.05	86	0.09	200	0.06	213
---	---------------------------------	------	----	------	----	------	----	------	-----	------	-----

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
1	8-toothed spruce bark beetle (Buchdrucker, <i>Ips typographus</i> )	2003-2011	132
1	Small 6-toothed spruce bark beetle (Kupferstecher, <i>Pityogenes chalcographus</i> )	2003-2010	44
1	Gregarious spruce sawfly (Kleine Fichtenblattwespe, <i>Pristiphora abietina</i> )	2002-2005	73
1	Larch casebearer, Larch gall midge, Larch needle adelgids (Lärchenminiermotte, Lärchenknospengallmücke, Lärchennadelknicklaus; <i>Coleophora laricella</i> , <i>Dasineura kellneri</i> , <i>Adelges geniculatus</i> , <i>Adelges laricis</i> , <i>Sacchiphantes viridis</i> )	2009-2011	22
2	Dieback of ash (Eschentriebsterben, <i>Hymenoscyphus pseudoalbidus</i> )	2009-2012	124
2	Root rot on conifers (Wurzelfäule, <i>Heterobasidion</i> spp.)	2012	49
2	Lirula-Needle cast of spruce and Needle diseases of spruce (Fichtennadelpilze; <i>Lirula</i> , <i>Lophodermium</i> , <i>Tiarosporella</i> , <i>Rhizosphaera</i> spp.)	2009-2011	80
3	Windthrow and windbreak	2007 and 2008	65
3	Damage by snow and ice	2006 and 2007	22
3	Drought and Heat damage	2003	22

Outbreak category
-------------------

1 Insects
-----------

2 Diseases
------------

3 Severe weather events
-------------------------

## Tiers

Category	Tier for status	Tier for trend
Area affected by fire	Tier 3	Tier 3
<ul style="list-style-type: none"> <li>Insects</li> <li>Diseases</li> <li>Severe weather events</li> </ul>	Tier 1	Tier 2

## Tier criteria

Category	Tier for status	Tier for reported trend
Burned area	<b>Tier 3</b> : National fire monitoring routines <b>Tier 2</b> : Remote sensing surveys <b>Tier 1</b> : Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>Insects</li> <li>Diseases</li> <li>Severe weather events</li> </ul>	<b>Tier 3</b> : Systematic survey (e.g. via inventory or aerial damage assessment) <b>Tier 2</b> : Management records <b>Tier 1</b> : Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 8.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Burned area	N/A	N/A
Insects	N/A	Reference period: 2002-2012.
Diseases	N/A	Reference period: 2002-2012
Severe weather events	N/A	Reference period: 2002-2012

## Other general comments to the table

N/A
-----

## 9. What is the forest area with reduced canopy cover?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

Category	Definition
Reduction in canopy cover	Forest that has undergone a reduction of canopy cover of more than 20% between the years 2000 and 2010 within the forest canopy cover range of 30-80% as detected by the MODIS VCF sensor.

Table 9

Category	Area of forest with reduced canopy cover (000 ha)
Reduction in canopy cover	N/A

Tiers

Category	Tier for reported trend
Reduction in canopy cover	N/A

Tier criteria

Category	Tier for reported trend
Reduction in canopy cover	<b>Tier 3</b> : Remote sensing with ground truthing and/or Landsat imagery <b>Tier 2</b> : Remote sensing using Modis (using pre-filled data provided by FAO) <b>Tier 1</b> : Expert opinion

Comments

Category	Comments related to data definitions etc
Reduction in canopy cover	N/A

Other general comments

The concept is irrelevant for describing the development of forests in Austria. Thinning is part of the silvicultural system and may temporarily reduce (and in further consequence increase) canopy cover. Anyhow, thinning should not be handled under the title of forest degradation.

## 10. What forest policy and regulatory framework exists to support implementation of sustainable forest management SFM?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 10.1 Categories and definitions

Category	Definition
Policies supporting sustainable forest management	Policies or strategies that explicitly encourage sustainable forest management.
Legislation and regulations supporting sustainable forest management	Legislation and regulations that govern and guide sustainable forest management, operations and use.

### 10.2 National data

#### 10.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Austrian Forest Report 2008, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna, 2008	Policies and legislation	2008	page 93ff.: National forest programmes or similar; page 100ff.: Legal/regulatory frameworks and international commitments
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 10.2.2 Classification and definitions

National class	Definition
N/A	N/A

## 10.2.3 Original data

<p><b>Policies supporting sustainable forest management</b></p> <p><b>NATIONAL LEVEL:</b></p> <p>Austrian Forest Programme ( <a href="http://www.lebensministerium.at/forst/walddialog/dokumente/walddialog-kurz.html">http://www.lebensministerium.at/forst/walddialog/dokumente/walddialog-kurz.html</a> );</p> <p>Austrian Biodiversity Strategy ( <a href="http://www.biologischevielfalt.at/ms/chm_biodiv_home/chm_biodiv_home/chm_nat_aktivitaeten/chm_oesterreichische_strategie/">http://www.biologischevielfalt.at/ms/chm_biodiv_home/chm_biodiv_home/chm_nat_aktivitaeten/chm_oesterreichische_strategie/</a> );</p> <p>National Renewable Energy Action Plan 2010 for Austria ( <a href="http://ec.europa.eu/energy/renewables/action_plan_en.htm">http://ec.europa.eu/energy/renewables/action_plan_en.htm</a> ).</p> <p><b>PROVINCIAL LEVEL:</b></p> <p>Some provinces have developed provincial forestry strategies, e.g. Vorarlberg ( <a href="https://www.vorarlberg.at/pdf/forststrategie201805_03_2.pdf">https://www.vorarlberg.at/pdf/forststrategie201805_03_2.pdf</a> ).</p> <p><b>Legislation and regulations supporting sustainable forest management</b></p> <p>Austrian Forest Act ( <a href="https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=10010371">https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=10010371</a> );</p> <p>Ordinances of the Provincial Governors or Provincial Forest Laws as set out in §§ 15, 26 and 95 et. seq. of the 1975 Forest Act (implementing laws);</p> <p>Act on surveillance of timber trade (Holzhandelsüberwachungsgesetz, 2013, national implementation of the EU Timber Regulation, <a href="http://www.ris.bka.gv.at/Dokument.wxe?Abfrage=BgblAuth&amp;Dokumentnummer=BGBLA_2013_I_178">http://www.ris.bka.gv.at/Dokument.wxe?Abfrage=BgblAuth&amp;Dokumentnummer=BGBLA_2013_I_178</a> );</p> <p>Provincial laws on nature conservation and landscape protection</p>
--

## 10.3 Data

Table 10

Category				
	National	Sub-national		
		Regional	Provincial/State	Local
Policies supporting sustainable forest management	yes		yes	no
... of which, in publicly owned forests	yes		yes	no

... of which, in <u>privately</u> owned forests	yes		yes	no
Legislation and regulations supporting sustainable forest management	yes		yes	no
... of which, in <u>publicly</u> owned forests	yes		yes	no
... of which, in <u>privately</u> owned forests	yes		yes	no

#### 10.4 Comments

Variable / category	Comments related to data definitions etc
Policies supporting sustainable forest management	The main instrument is the Austrian Forest Programme, developed within the framework of the Austrian Forest Dialogue.
Legislation and regulations supporting sustainable forest management	Due to the Austrian constitution, forestry is a matter of national responsibility. Nature protection is in the responsibility of the nine provinces.

#### Other general comments

Sub-national/Regional: not applicable.

## 11. Is there a national platform that promotes stakeholder participation in forest policy development?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 11.1 Categories and definitions

Category	Definition
National stakeholder platform	A recognized procedure that a broad range of stakeholders can use to provide opinions, suggestions, analysis, recommendations and other input into the development of national forest policy.

### 11.2 National data

#### 11.2.1 Data sources

	References to sources of information	Years	Additional comments
1	The Austrian Forest Dialogue (Österreichischer Walddialog)	since 2003	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A

Table 11

Is there a national platform that promotes or allows for stakeholder participation in forest policy development?	yes
--	-----

### 11.3 Comments

Category	Comments related to data definitions etc
National stakeholder platform	N/A

Other general comments

#### **The Austrian Forest Dialogue ([www.walddialog.at](http://www.walddialog.at)) and the Austrian Forest Programme**

In Austria, ensuring multifunctional forest management on a long-term basis is a matter of top priority in forest, environment and social politics. The Austrian Forest Dialogue, launched in 2003, is an innovative approach aimed at the foresighted settling of clashing interests and the improved coordination of forest-related activities. In 2010/2011 an evaluation of the Austrian Forest Dialogue, respectively the Austrian Forest Programme (<http://www.lebensministerium.at/forst/walddialog/dokumente/walddialog-kurz.html>), was carried out. Based on the findings of this evaluation, the setting and the process of the Forest Dialogue were adapted. As at the beginning of 2012 the second Forest Dialogue cycle was launched with the aim of preparing a new forest programme by the end of 2015. In the first two years of the 2nd Forest Dialogue cycle, priority was given to

developing the measures of relevance to the field of “Forest – Water” concerning the EU Rural Development Regulation 2014-2020.

## 12. What is the forest area intended to be in permanent forest land use and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 12.1 Categories and definitions

Category	Definition
Forest area intended to be in permanent forest land use	Forest area that is designated or expected to be retained as forest and is highly unlikely to be converted to other land use.
...of which permanent forest estate ( <i>sub-category</i> )	Forest area that is designated by law or regulation to be retained as forest and may not be converted to other land use.

### 12.2 National data

#### 12.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forest Act 1975, § 17	Forest area intended to be in permanent forest land use and ...of which permanent forest estate	since 1976	§ 17 (1) reads as follows:
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 12.2.2 Classification and definitions

National class	Definition
N/A	N/A

## 12.2.3 Original data

Forest area: See Table 1a.

## 12.3 Analysis and processing of national data

## 12.3.1 Adjustment

Not needed.

## 12.3.2 Estimation and forecasting

Not needed.

## 12.3.3 Reclassification

Not needed.

## 12.4 Data

Table 12

Categories		Forest area 2010 (000 ha)
	Forest area intended to be in permanent forest land use	3860
	... of which permanent forest estate	3860

## Tiers

Category	Tier for status
Forest area intended to be in permanent forest land use	Tier 1
Permanent forest estate	Tier 1

## Tier Criteria

Category	Tier for status
Forest area intended to be in permanent forest land use	<b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years <b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years <b>Tier 1</b> : Other

Permanent forest estate	<b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years <b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years <b>Tier 1</b> : Other
-------------------------	---

## 12.5 Comments

Category	Comments related to data definitions etc
Forest area intended to be in permanent forest land use	The total forest area (incl. OWL) is reported.
Permanent forest estate	The total forest area (incl. OWL) is reported.

### Other general comments

<p>The whole forest area (incl. OWL) is protected by law (see 12.2.1). The use of forest soil for other purposes (clearing) than those of forest cultivation is prohibited in general. Clearing allowances request a special procedure carried out by the forest authority. If public interest in conserving the forest area overweighs, clearing won't be permitted.</p>
---

### 13. How does your country measure and report progress towards SFM at the national level?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 13.1 Categories and definitions

Category	Definition
Forest area monitored under a national forest monitoring framework	Forest area monitored by a national monitoring framework or systems that provide measurement based periodic monitoring of forest extent and quality.
Forest reporting at national scale	National reporting of forest extent and characteristics that includes some measure of progress toward sustainable forest management.

#### 13.2 National data

##### 13.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Austrian Forest Inventory	Forest inventory	2007/09	Since 1961. <a href="http://www.waldinventur.at">http://www.waldinventur.at</a>
2	Austrian National Forest Statistics	Updates to other sources	2012	Annually. Integrated in mentioned types of forest reporting.
3	Austrian Felling Statistics	Updates to other sources	2012	Annually. <a href="http://www.lebensministerium.at/publikationen/forst/holz.html">http://www.lebensministerium.at/publikationen/forst/holz.html</a>
4	Monitoring the state of forests (ICP-Forests)	Other field assessments	Since 1988	<a href="http://bfw.ac.at/rz/bfwcms.web?dok=881">http://bfw.ac.at/rz/bfwcms.web?dok=881</a> ; <a href="http://waldmonitoring.at/">http://waldmonitoring.at/</a> ; <a href="http://www.icp-forests.net">www.icp-forests.net</a>

##### 13.2.2 Classification and definitions

National class	Definition
N/A	N/A

#### 13.3 Data

Table 13a

Category	% of total forest area	Most recent year	Check all boxes that apply					
			Continuous	Periodic	Permanent ground plots	Temporary ground plots	Aerial/remote sensing sample based	Aerial/remote sensing full coverage
Forest inventory	100	2009	no	yes	yes	no	no	yes
Other field assessments	100	2012	yes	yes	yes	no	no	no
Updates to other sources	100	2012	no	yes	no	no	no	no
Expert estimate	N/A	N/A						

Table 13b

Type of forest reporting used at national scale	Check boxes that apply
1 Criteria and Indicators reporting	yes
2 Periodic national state of the forest report	yes
3 Other (please document)	yes
4 None	no

#### Other type of forest reporting

Austrian data collection on forests (continuous, <http://www.lebensministerium.at/publikationen/forst/waldbericht.html>); Austrian report on forest damages caused by game (annually, <http://www.lebensministerium.at/publikationen/forst/wildschaden.html>); Monitoring game influences on forest regeneration (WEM, <http://www.wildeinflussmonitoring.at/>); Austrian report on agriculture (Grüner Bericht, annually, including several chapters on forestry and forest subsidation, <http://www.gruenerbericht.at/>)

### 13.4 Comments

Category	Comments
1 Criteria and Indicators reporting	C&I set included in the Austrian NFP. <a href="http://www.lebensministerium.at/forst/walddialog/dokumente.html">http://www.lebensministerium.at/forst/walddialog/dokumente.html</a>
2 Periodic national state of the forest report	Austrian Forest Report. New report planned for June 2014. <a href="http://www.lebensministerium.at/publikationen/forst/waldbericht.html">http://www.lebensministerium.at/publikationen/forst/waldbericht.html</a>
Forest inventory	NFI is basically based on permanent ground plots. In addition, mainly for cartographic reasons, aerial information is used. It is planned to enforce the use of airborne information. A change from the periodic to a continuous system is recently under discussion.

Other general comments

--

## 14. What is the area of forest under a forest management plan and how is this monitored?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 14.1 Categories and definitions

Category	Definition
Forest area with management plan	Forest area that has a long-term documented management plan, aiming at defined management goals which is periodically revised
...of which for production ( <i>sub-category</i> )	Forest management plan mainly focused on production
...of which for conservation ( <i>sub-category</i> )	Forest management plan mainly focused on conservation
Monitoring of forest management plans	Government monitoring of forest management plan implementation conducted through field visits or audits of forest management plan performance

### 14.2 National data

#### 14.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Estimation by national correspondent, 2011	Forest area with management plan	2010	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 14.3 Data

Table 14a

Forest plan type	Forest area 2010 (000 ha)
Forest area with management plan	1969
... of which for production	N/A
... of which for conservation	N/A

Table 14b

Indicate which (if any) of the following are required in forest management plans in your country	
1 Soil and water management	no

2 High conservation value forest delineation	no
3 Social considerations community involvement	no

Table 14c

<b>Percent of area under forest management plan that is monitored annually</b>	<b>0</b>
--	----------

## Tiers

Category	Tier for status
Forest area with management plan	Tier 1
Percent of area under forest management plan that is monitored annually	Tier 3

## Tier criteria

Category	Tier for status
Forest area with management plan	<b>Tier 3</b> : Reports that describe national records 5 years old or less that contain long-term forest monitoring plans <b>Tier 2</b> : Industry or other records indicating the presence of a long-term forest management plan <b>Tier 1</b> : Other
Percent of area under forest management plan that is monitored annually	<b>Tier 3</b> : Government documentation of monitoring extent <b>Tier 2</b> : Reports from forest managers or other documental sources <b>Tier 1</b> : Other

## 14.4 Comments

Category	Comments
Forest area with management plan	The Austrian Forest Act doesn't comprise an obligation for management plans. Therefore, no statistics about management plans are available. The estimation of experts, that 51% of total forest area is managed according to a management plan, is based on the assumption, that all community, municipal, provincial and federal forests as well as private forests owners organized in joint forest management ventures have management plans. In addition nearly all forest enterprises >500 ha and a small percentage of private forests <500 ha use management plans as well.
N/A	N/A
N/A	N/A

## Other general comments

--

## 15. How are stakeholders involved in the management decision making for publicly owned forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 15.1 Categories and definitions

Category	Definition
Stakeholder involvement	Stakeholder involvement is defined as significant inputs into at least one aspect of forest management at the operational scale

Table 15

Please indicate the type of stakeholder involvement in forest management decision making required in your country	
1. Planning phase	no
2. Operations phase	no
3. Review of operations	no

Tiers

Category	Tier for status
Type of stakeholder inputs	Tier 1

Tier criteria

Category	Tier for status
Type of stakeholder inputs	<b>Tier 3</b> : Government (national or sub-national) documentation of stakeholder inputs <b>Tier 2</b> : Government (national or subnational) requirement but stakeholder inputs not documented <b>Tier 1</b> : Other

### 15.2 Comments

Category	Comments
N/A	N/A
N/A	N/A
N/A	N/A

Other general comments

About one fifth of the total Austrian forest area is publicly owned. The Österreichische Bundesforste (ÖBf, Austrian Federal Forests) are Austria's largest forest enterprise by far. ÖBf are managing natural resources on behalf of the Republic of Austria, including 15% of the total forest area and more than 100 lakes. The company

is profit-oriented and works in lean, decentralized structures. After its reorganization in 1997, ÖBf are now a stock corporation paying an annual usufruct compensation (50%) of the net profit to the Republic. Core business is the forestry management, additional areas are real estate and services.

Neither the 1975 Forest Act nor the 1996 Act on Federal Forests require stakeholder involvement in forest management decisions at the operational scale.

## 16. What is the area of forest under an independently verified forest certification scheme?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 16.1 Categories and definitions

Category	Definition
FSC certification	Forest area certified under the Forest Stewardship Council certification scheme
PEFC certification	Forest area certified under the Programme for the Endorsement of Forest Certification scheme
Other international forest management certification	Forest area certified under an international forest management certification scheme with published standards and is independently verified by a third-party, excluding FSC and PEFC certification.
Certified forest area using a domestic forest management certification scheme	Area certified under a forest management certification scheme with published standards that are nationally recognized and independently verified by a thirdparty

### 16.2 Data

Table 16a

International forest management certification		Forest area (000 ha)						
		2000	2001	2002	2003	2004	2005	2006
	FSC	0	0	6.8	7.48	7.48	7.77	5.14
	PEFC	550	3050	3924	3924	3924	3924	3960
	Other	0	0	0	0	0	0	0
		2007	2008	2009	2010	2011	2012	
	FSC	4.97	4.29	5.09	4.8	0.41	0.43	
	PEFC	3960	2039	1956	1956	2384	2650	
	Other	0	0	0	0	0	0	

Table 16b

Domestic forest management certification		Forest area (000 ha)						
		2000	2001	2002	2003	2004	2005	2006
	no domestic forest management certification scheme in place	0	0	0	0	0	0	0

	N/A	0	0	0	0	0	0	0
	N/A	0	0	0	0	0	0	0
		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	
	no domestic forest management certification scheme in place	0	0	0	0	0	0	
		0	0	0	0	0	0	
		0	0	0	0	0	0	

## Tier criteria

Category	Tier for status
<b>International</b> forest management certification	Tier 3: International forest management scheme records maintained by the certifying organization for the reporting year Tier 2: International forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year Tier: 1 Other
<b>Domestic</b> forest management certification	Tier 3: National registry reports for domestic forest management certification maintained by the certifying organization for the reporting year Tier 2: Domestic forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year Tier: 1 Other

## Tiers

Category	Tier for status
<b>International</b> forest management certification	Tier 3
<b>Domestic</b> forest management certification	Tier 3

## 16.3 Comments

Category	Comments related to data definitions etc
Certified forest area using an international forest management certification scheme	PEFC Austria: Up to 2007 the whole Austrian forest area was considered as certified. 2008-2010 figures are based on calculations. Since 2011 figures are an output of the PEFC Austria forest owner database.
Domestic forest management certification	N/A

## Other general comments

--

## 17. How much money do governments collect from and spend on forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 17.1 Categories and definitions

Category	Definition
Forest revenue	All government revenue collected from the domestic production and trade of forest products and services. For this purpose revenue include: <ul style="list-style-type: none"> <li>• <b>Goods</b> : roundwood; sawnwood; biomass; woodbased panels; pulp and paper and non-wood forest products.</li> <li>• <b>Services</b> : including concession fees and royalties, stumpage payments, public timber sales revenue taxes and charges based on forest area or yield, taxes on domestic trade and export of forest products, special levies on forestry activities and payments into forest related funds, other miscellaneous inspection, licence and administrative fees levied by forest administrations, permit and licence fees for recreation and other forest related activities.</li> </ul>
Public expenditure on forestry	All government expenditure on forest related activities.

### 17.2 National data

#### 17.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Grüner Bericht (Green Report) 2000, 2006 and 2011, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna, 2001, 2006 and 2011, <a href="http://www.gruenerbericht.at">www.gruenerbericht.at</a>	Subsidies	2000, 2005, 2010	N/A
2	Cost accounting, Federal Ministry of Agriculture, Forestry, Environment and Water Management, unpublished	Operational expenditure: full personnel costs (personnel, materials, operating costs, overhead costs) of the Forestry Department in the ministry	2005	N/A
3	Federal budget accounting, Federal Ministry of Agriculture, Forestry, Environment and Water Management, unpublished	Other operational expenditure (studies, projects, research and training centres, schools) of the Forestry Department in the ministry	2000, 2005, 2010	N/A
4	N/A	N/A	N/A	N/A

### 17.3 Data

Table 17

Category	Revenues / expenditures (000 local currency)
----------	--

	2000	2005	2010
Forest revenue	N/A	N/A	N/A
Public expenditure on forestry	N/A	115270	N/A
	2000	2005	2010
Name of Local Currency	ATS	euro	euro

### 17.4 Comments

Category	Comments related to data definitions etc
Forest revenue	N/A
Public expenditure on forestry	Other operational expenditure (studies, projects, research and training centres, schools) include only federal expenditure. Domestic funding: federal and provincial funds. External funding: solely European Union funds.
Other general comments	N/A

#### Other general comments

##### Original data

##### Operational expenditure:

Full personnel costs (personnel, materials, operating costs, overhead costs) of the Forestry Department in the ministry (without Division IV/5 - Torrent and Avalanche Control): 2005: **4.53 m EUR** .

Average FTE full personnel costs of the Forestry Department in the ministry 2005: 94,000 EUR. The same average costs are assumed for the provincial forest administration personnel.

Employment in forest administration at provincial level 2007: 535 FTE. It is the same level assumed for 2005.

Estimated full personnel cost of provincial forest administration:  $94,000 * 535 = \mathbf{50.3 \text{ m EUR}}$  .

Other operational expenditure (studies, projects, research and training centres, schools) of the Forestry Department in the ministry (without Division IV/5 - Torrent and Avalanche Control): 2000: 22.3 m EUR, **2005: 24.1 m EUR** , 2010: 25.8 m EUR.

TOTAL 2000: n. a. + n. a. + 22.3 = n. a. m EUR

TOTAL 2005: 4.5 + 50.3 + 24.1 = **78.9 m EUR**

TOTAL 2010: n. a. + n. a. + 25.8 = n. a. m EUR

Transfer payments:

Green Report 2000, table 7.1.3a:

Forest subsidies 2000: EU 108.2 m ATS, federal: 237.3 m ATS, provinces: 137.7 m ATS, total: **483.2 m ATS** (1 EURO = 13.7603 ATS) = **35.12 m EUR** .

Green Report 2006, table 5.1.3b:

Forest subsidies 2005: EU: 8.88 m EUR, federal: 15.23 m EUR, provinces: 12.26 m EUR, total: **36.37 m EUR** .

Green Report 2011, table 5.1.4:

Forest subsidies 2010: EU: 15.77 m EUR, federal: 14.70 m EUR, provinces: 14.765 m EUR, total: **45.2 m EUR** .

## 18. Who owns and manages the forests and how has this changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 18.1 Categories and definitions

Category	Definition
Public ownership	Forest owned by the State or administrative units of the public administration or by institutions or corporations owned by the public administration.
...of which owned by the state at national scale ( <i>sub-category</i> )	Forest owned by the State at the national scale or administrative units of the public administration or by institutions or corporations owned by the public administration.
...of which owned by the state at the sub-national government scale ( <i>sub-category</i> )	Forest owned by the State at the sub-national government scale or administrative units of the public administration or by institutions or corporations owned by the public administration.
Private ownership	Forest owned by individuals, families, communities, private cooperatives corporations and other business entities, private, religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
...of which individuals ( <i>sub-category</i> )	Forest owned by individuals and families.
...of which private business entities and institutions ( <i>sub-category</i> )	Forest owned by private corporations cooperatives companies and other business entities as well as private nonprofit organizations such as NGOs nature conservation associations, and private religious and educational institutions etc.
...of which local tribal and indigenous communities ( <i>sub-category</i> )	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area or forest owned by communities of indigenous or tribal people The community members are coowners that share exclusive rights and duties and benefits contribute to the community development.
Unknown ownership	Forest area where ownership is unknown includes areas where ownership is unclear or disputed.
Categories related to management rights of public forests	Definition
Public Administration	The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.
Individuals households	Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.
Private companies	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities private cooperatives, private nonprofit institutions and associations, etc., through long-term leases or management agreements.
Communities	Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.
Other form of management rights	Forests for which the transfer of management rights does not belong to any of the categories mentioned above.

### 18.2 National data

## 18.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Austrian National Forest Statistics, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna, <a href="http://www.lebensministerium.at">www.lebensministerium.at</a>	Forest area (incl. OWL) according ownership categories	1990, 2000, 2005, 2010	Forest ownership statistics is based on the Austrian land register (Kataster).
2	Farm structure surveys 1990, 1999, 2005 and 2010 (Land- und Forstwirtschaftliche Betriebszählung 1990; Agrarstrukturerhebungen 1999, 2005 und 2010), Statistics Austria	Forest area (incl. OWL) according ownership categories	1990, 1999, 2005, 2010	N/A
3	Austrian Forest Inventory	Forest and OWL area	N/A	See Question 1.
4	N/A	N/A	N/A	N/A

## 18.2.2 Classification and definitions

National class	Definition
N/A	N/A

## 18.2.3 Original data

Figures based on Austrian land register:		
	Hectares	%
<b>2010</b>		
<b>TOTAL (Forest + OWL)</b>	<b>3,701,944</b>	<b>100.00</b>
Private forests < 200 hectares	1,813,962	49.00
Private forests > 200 hectares	797,005	21.53

Community forests	388,736	10.50
<b>SUM Private ownership</b>	<b>2,999,703</b>	<b>81.03</b>
Municipal forests	79,002	2.13
Provincial forests	52,725	1.42
Austrian Federal Forests and other publicly owned forests	570,514	15.41
<b>SUM Public ownership</b>	<b>702,241</b>	<b>18.97</b>
<b>2005</b>		
<b>TOTAL (Forest + OWL)</b>	<b>3,589,106</b>	<b>100.00</b>
Private forests < 200 hectares	1,765,111	49.18
Private forests > 200 hectares	772,848	21.53
Community forests	352,859	9.83
<b>SUM Private ownership</b>	<b>2,890,818</b>	<b>80.54</b>
Municipal forests	68,995	1.92
Provincial forests	50,084	1.40
Austrian Federal Forests and other publicly owned forests	579,210	16.14
<b>SUM Public ownership</b>	<b>698,289</b>	<b>19.46</b>
<b>2000</b>		
<b>TOTAL (Forest + OWL)</b>	<b>3,576,638</b>	<b>100.00</b>
Private forests < 200 hectares	1,770,979	49.52
Private forests > 200 hectares	770,542	21.54

Community forests	333,830	9.33
<b>SUM Private ownership</b>	<b>2,875,351</b>	<b>80.39</b>
Municipal forests	81,629	2.28
Provincial forests	44,082	1.23
Austrian Federal Forests and other publicly owned forests	575,577	16.09
<b>SUM Public ownership</b>	<b>701,288</b>	<b>19.61</b>
<b>1990</b>		
<b>TOTAL (Forest + OWL)</b>	<b>3,492,173</b>	<b>100.00</b>
Private forests < 50 hectares	1,360,481	38.96
Private forests > 50 hectares	911,788	26.11
Church forests	144,782	4.15
Community forests	330,081	9.45
<b>SUM Private ownership</b>	<b>2,747,132</b>	<b>78.67</b>
Municipal forests	88,636	2.54
Provincial forests	46,033	1.32
Austrian Federal Forests	570,137	16.33
Other publicly owned forests	40,235	1.15
<b>SUM Public ownership</b>	<b>745,041</b>	<b>21.33</b>

**Figures based on farm structure surveys:**

**Proportion on forest + OWL area owned by individuals:**

**1990 (census): 57.45%**

<b>1999 (census):</b>	<b>53.14%</b>	<b>estimation by NC: 57%</b>
<b>2005 (sample survey):</b>	<b>58.27%</b>	
<b>2010 (census):</b>	<b>56.96%</b>	
<b>As the surveys differ in methodology and categorisation, the same estimation (57%) is used for all four reference years,</b>		

### 18.3 Analysis and processing of national data

#### 18.3.1 Adjustment

Not needed.

#### 18.3.2 Estimation and forecasting

The above proportions of ownership from 18.2.3 (refer to forest and OWL) are used on the forest figures from Question 1. As there are no figures for forest and OWL separately available, it is assumed, that the ownership distribution is equal in both categories.

The Austrian land register gives information on public ownership, total private ownership and private ownership owned by local communities.

The farm structure surveys give information on private ownership owned by individuals.

Private ownership owned by private business entities and institutions = total private ownership – private ownership owned by individuals – private ownership owned by local communities.

#### 18.3.3 Reclassification

Not needed.

### 18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	2000	2005	2010
	Public ownership	805	753	749	732

	... of which owned by the state at national scale	660	618	621	595
	... of which owned by the state at the sub-national government scale	145	135	128	137
	Private ownership	2971	3085	3102	3128
	... of which owned by individuals	2152	2188	2195	2200
	... of which owned by private business entities and institutions	462	539	528	523
	... of which owned by local, tribal and indigenous communities	357	358	379	405
	Unknown ownership	0	0	0	0
TOTAL		3776.00	3838.00	3851.00	3860.00

## Tiers

Category	Tier for status	Tier for reported trend
Public ownership	Tier 3	Tier 3
Private ownership	Tier 3	Tier 3
Unknown ownership	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
Ownership	Tier 3: National forestry statistics registers of land titles or maps on land ownership or all forest area under one ownership category that is five years old or less. Tier 2: National forestry statistics registers of land titles or maps on land ownership or questionnaires that are more than five years old. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

Table 18b - Holder of management rights of public forests

Categories	Forest area (000 hectares)			
	1990	2000	2005	2010
Public Administration	805	753	749	732

Individuals	0	0	0	0
Private companies	0	0	0	0
Communities	0	0	0	0
Other	0	0	0	0
TOTAL	805.00	753.00	749.00	732.00

Category	Tier for reported trend	Tier for status
Public Administration	Tier 1	Tier 1
Individuals	Tier 1	Tier 1
Private companies	Tier 1	Tier 1
Communities	Tier 1	Tier 1
Other	Tier 1	Tier 1

### 18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	N/A	N/A
Private ownership	Figures for individuals and private business entities and institutions are estimations or calculations based on estimations. See 18.2.3 and 18.3.2!	Therefore trends on subcategories individuals and private business entities and institutions are not meaningful.
Unknown ownership	N/A	N/A
Management rights	N/A	N/A

Other general comments to the table
N/A

## 19. How many people are directly employed in forestry?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 19.1 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment in forestry	Employment in activities related to production of goods derived from forests. This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

### 19.2 National data

#### 19.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Statistics Austria, Calculations within the framework for Integrated Environmental and Economic Accounting for Forests (IEEAF), Table 3c	Volume of forestry labour input (non-salaried and salaried)	1990, 2000, 2005, 2010	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 19.2.2 Classification and definitions

National class	Definition
Volume of forestry labour input	Definitions follow the explanatory notes of Eurostat for the economic accounts for forestry and logging (IEEAF Table 3c): The work done by both salaried and non-salaried workers, in 1000 annual work units (AWU). Definition: one AWU corresponds to the input, measured in working time, of one person engaged in forestry or logging activities in a forestry or logging unit (including units whose main activity is not forestry or logging) on a full-time basis over the entire year.
N/A	N/A
N/A	N/A
N/A	N/A

## 19.2.3 Original data

--

## 19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	2000	2005	2010
	Employment in forestry	29.61	17.89	18.96	19.92
	... of which female	N/A	N/A	N/A	N/A

## 19.4 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Employment in forestry	N/A	N/A

Other general comments to the table
N/A

## 20. What is the contribution of forestry to Gross Domestic Product (GDP)?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 20.1 Categories and definitions

Category	Definition
Gross value added from forestry (at basic prices)	This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

### 20.2 Data

Table 20 (Pre-filled data from UNdata/EUROSTAT)

Category	Million	Currency	Year for latest available information
Gross value added from forestry (at basic prices)	1254.414	euro	2012

### 20.3 Comments

Category	Comments
Gross value added from forestry (at basic prices)	NACE Rev. 4 does not exist. The correct terms are ISIC Rev.4 and NACE Rev. 2 respectively. Correct value for 2008: 1043.57 million euro. Source: Statistics Austria.

Other general comments

--

## 21. What is forest area likely to be in the future

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 21.1 Categories and definitions

Category	Definition
Government target/aspiration for forest area	Government target/aspiration for forest area for a specific year.
Forests earmarked for conversion	Forest area that is allocated/classified or scheduled to be converted into non-forest uses.

### 21.2 National data

#### 21.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	ÖWAD-Indikatoren-Set mit Ist- und Soll-Größen (Austrian Set of Indicators for Sustainable Forest Management), 2013	Government target/aspiration for forest area	2020, 2030	The targets for the indicator "forest area" reads as follows: 1) No decreases in the total Austrian forest area (reference year 2000/02). 2) Increase in forest areas in regions poor in forest (reference year 2000/03)
2	Forest Act 1975, §17 (1)	Forests earmarked for conversion	2013	See 21.4!
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 21.3 Data

Table 21a

Category	Forest area (000 ha)	
	2020	2030
Government target/aspiration for forest area	3869	3869

Table 21b

Category	Forest area (000 ha)
	2013
Forests earmarked for conversion	0

## 21.4 Comments

Category	Comments
Government target/aspiration for forest area	As the national target for forest area is "no decrease" forest area 2015 is also reported for 2020 and 2030. See 21.2.1!
Forests earmarked for conversion	The protection of forest area is a priority of the Austrian forest policy. §17 (1) of the Austrian Forest Act says: "The use of forest soil for other purposes than those of forest cultivation (clearing) is prohibited."

Other general comments

--