



Forestry Department

Food and Agriculture Organization of the United Nations

**GLOBAL FOREST RESOURCES
ASSESSMENT 2010**

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The Forest Resources Assessment Programme

Sustainably managed forests have multiple environmental and socio-economic functions important at the global, national and local scales, and play a vital part in sustainable development. Reliable and up-to-date information on the state of forest resources - not only on area and area change, but also on such variables as growing stock, wood and non-wood products, carbon, protected areas, use of forests for recreation and other services, biological diversity and forests' contribution to national economies - is crucial to support decision-making for policies and programmes in forestry and sustainable development at all levels.

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Forest Resources Assessment Programme. This country report forms part of the Global Forest Resources Assessment 2010 (FRA 2010).

The reporting framework for FRA 2010 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes variables related to the extent, condition, uses and values of forest resources, as well as the policy, legal and institutional framework related to forests. More information on the FRA 2010 process and the results - including all the country reports - is available on the FRA Web site (www.fao.org/forestry/fra).

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The Global Forest Resources Assessment Country Report Series is designed to document and make available the information forming the basis for the FRA reports. The Country Reports have been compiled by officially nominated country correspondents in collaboration with FAO staff. Prior to finalisation, these reports were subject to validation by forestry authorities in the respective countries.

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Report preparation and contact persons

No report has been received from the country.

This report is the result of a desk study prepared by the FRA secretariats in Rome, which is based on the existing available information using the established format for FRA 2010 country reports.

1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2010 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 <i>in situ</i> . 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 <i>in situ</i> ; 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”.
Other land with tree cover (Subordinated to “Other land”)	Land classified as “Other land”, spanning 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.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.

1.2 National data

1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand	M	Forest, OWL	1964 and 1992	Secondary data source.
MCPFE, 2003. State of Europe’s Forests 2003	M			Secondary data source.
FAO, 2001. Global Forest Resources Assessment 2000. FAO Forestry Paper 140.	M			Secondary data source. Mainly based on UNECE/FAO, 2000.
FAOSTAT	H	Total area, Land area		

The UNECE/FAO 2000 report states that it is based on Greek forest inventories of 1964 and 1992, but it does not report any clear references of the published information. It also states that the definitions used at these two points in time may not be totally comparable.

1.2.2 Classification and definitions

The classification and definitions used in the UNECE/FAO report are the same as those being used by FRA 2010.

1.2.3 Original data

Source: UNECE/FAO 2000, Reference year: 1964 and 1992

Category	Area (1000 ha)	
	1964	1992
Forest	2 512	3 359
Other wooded land	3 960	3 154
Sub-total Forest and Other wooded land	6 472	6 513

Source: FAOSTAT, 2004

Category	Area (1000 ha)
Total land area	12 890
Inland water (calculated)	306
Total Country area	13 196

1.3 Analysis and processing of national data

1.3.1 Calibration

The area of Other land was calculated by subtracting the areas of Forest and Other wooded land from the total land area reported by FAOSTAT.

1.3.2 Estimation and forecasting

The areas of Forest and Other wooded land for the three reporting years were estimated by applying a linear interpolation and extrapolation of the original data.

1.3.3 Reclassification into FRA 2010 categories

No further reclassification is needed, as the national data already are presented according to the FRA 2005 categories.

1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	3299	3601	3752	3903
Other wooded land	3212	2924	2780	2636
Other land	6379	6365	6358	6351
...of which with tree cover	n.a.	n.a.	n.a.	n.a.
Inland water bodies	306	306	306	306
Total for country	13196	13196	13196	13196

1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		
Other wooded land		
Other land		
Other land with tree cover		
Inland water bodies		

Other general comments to the table
The estimates for 2000, 2005 and 2010 are rough estimates based on an assessment for 1992 and on an average annual change rate for the period 1964 to 1992. Further, the UNECE/FAO 2000 report states that it is based on Greek forest inventories of 1964 and 1992, but it does not report any clear references of the published information. It also states that the definitions used at these two points in time may not be totally comparable.

Expected year for completion of ongoing/planned national forest inventory and/or RS survey / mapping
Field inventory
Remote sensing survey / mapping

2 Table T2 – Forest ownership and management rights

2.1 FRA 2010 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.
Private ownership	Forest owned by individuals, families, communities, private co-operatives, corporations and other business entities, private religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
Individuals (sub-category of Private ownership)	Forest owned by individuals and families.
Private business entities and institutions (sub-category of Private ownership)	Forest owned by private corporations, co-operatives, companies and other business entities, as well as private non-profit organizations such as NGOs, nature conservation associations, and private religious and educational institutions, etc.
Local communities (sub-category of Private ownership)	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area. The community members are co-owners that share exclusive rights and duties, and benefits contribute to the community development.
Indigenous / tribal communities (sub-category of Private ownership)	Forest owned by communities of indigenous or tribal people.
Other types of ownership	Other kind of ownership arrangements not covered by the categories above. Also includes areas where ownership is unclear or disputed.
Categories related to the holder of management rights of public forest resources	
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 institutions	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities, private co-operatives, private non-profit 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.

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand		Ownership	1992	Secondary data source.
MCPFE, 2003. State of Europe's Forests 2003				Secondary data source.

2.2.2 Classification and definitions

The definitions of public and private ownership according to UNECE/FAO 2000 are the same as those being used by FRA 2010.

2.2.3 Original data

Source: UNECE/FAO 2000, Reference year 1992

Category	Forest		OWL	
	1000 ha	%	1000 ha	%
Public ownership	2 603	77.49%	2 728	86.49%
Private ownership	756	22.51%	426	13.51%

2.3 Analysis and processing of national data

The UNECE reports figures on ownership only for the reference year 1992. No source of information has been found for any other reference year, neither any information indicating any trends as regards ownership. Hence, the same proportions have been applied to the areas as reported in table T1.

2.3.1 Reclassification into FRA 2010 categories

No further reclassification is needed, as the original data already are presented according to the FRA 2010 categories.

2.4 Data for Table T2

Table 2a - Forest ownership

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	2557	2790	2907
Private ownership	742	811	845
...of which owned by individuals	n.a.	n.a.	n.a.
...of which owned by private business entities and institutions	n.a.	n.a.	n.a.
...of which owned by local communities	n.a.	n.a.	n.a.
...of which owned by indigenous / tribal communities	n.a.	n.a.	n.a.
Other types of ownership	0	0	0
TOTAL	3299	3601	3752

Note: If other types of ownership is reported, please specify details in comment to the table.

Does ownership of trees coincide with ownership of the land on which they are situated?	<input checked="" type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If No above, please describe below how the two differ:		

Table 2b - Holder of management rights of public forests

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration	n.a.	n.a.	n.a.
Individuals	n.a.	n.a.	n.a.
Private corporations and institutions	n.a.	n.a.	n.a.
Communities	n.a.	n.a.	n.a.
Other	n.a.	n.a.	n.a.
TOTAL	2556	2790	2908

2.5 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		
Private ownership		
Other types of ownership		
Management rights		

Other general comments to the table
It is assumed that the ownership of the trees coincide with ownership of the land on which they are situated.

3 Table T3 – Forest designation and management

3.1 FRA 2010 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.
Protected areas	Areas especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
Categories of primary designated functions	
Production	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Protection of soil and water	Forest area designated primarily for protection of soil and water.
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.
Social services	Forest area designated primarily for social services.
Multiple use	Forest area designated primarily for more than one purpose and where none of these alone is considered as the predominant designated function.
Other	Forest areas designated primarily for a function other than production, protection, conservation, social services or multiple use.
No / unknown	No or unknown designation.
Special designation and management categories	
Area of permanent forest estate (PFE)	Forest area that is designated to be retained as forest and may not be converted to other land use.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.
Forest area under sustainable forest management	To be defined and documented by the country.
Forest area with management plan	Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, which is periodically revised.

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand		Areas available for wood supply, Areas not available for wood supply	1992	Secondary data source.
MCPFE, 2007. State of Europe's Forests 2007		Protected forest areas.	2000,2005	Secondary data source.

3.2.2 Original data

Forest area available/not available for wood supply.

UNECE/FAO reports that for 1992, out of the total area of Forest (3 359 000 ha), 3 094 000 hectares were available for wood supply and 265 000 hectares were not available for wood supply. This corresponds to 92.1 percent and 7.9 percent respectively.

Of the area not available for wood supply, 142 000 hectares were unavailable due to conservation/protection purposes, equalling 4.2 percent of the total forest area.

Forest area within protected areas

In MCPFE 2007 the protected area class 1.1 was estimated to be 152 000 and 159 000 ha for the years 2000 and 2005, respectively. This area was used to report the 'Forest area within protected areas'.

3.3 Analysis and processing of national data

3.3.1 Calibration

No calibration has been made.

3.3.2 Estimation and forecasting

UNECE/FAO reports values for 1992 only. No source of information has been found for any other reference year, neither any information indicating any trends as regards designated functions. Hence, the percentages presented as part of the original data have been applied to the forest areas as reported in table T1.

3.3.3 Reclassification into FRA 2010 categories

The forest area available for wood supply has been reclassified as 100 percent production.

The forest area unavailable for wood supply for conservation/protection reasons is reclassified into 100% Conservation of Biodiversity.

No or unknown function = Total area of forests - Production - Conservation of Biodiversity.

3.4 Data for Table T3

Table 3a – Primary designated function

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	3040	3317	3456	3595
Protection of soil and water	0	0	0	0
Conservation of biodiversity	139	152	159	164
Social services	0	0	0	0
Multiple use	0	0	0	0
Other (please specify in comments below the table)	0	0	0	0
No / unknown	120	132	137	144
TOTAL	3299	3601	3752	3903

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	n.a.	n.a.	n.a.	n.a.
Forest area within protected areas	139	152	159	164
Forest area under sustainable forest management	n.a.	n.a.	n.a.	n.a.
Forest area with management plan	n.a.	n.a.	n.a.	n.a.

3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production		
Protection of soil and water		
Conservation of biodiversity		
Social services		
Multiple use		
Other		
No / unknown designation		
Area of permanent forest estate		
Forest area within protected areas		
Forest area under sustainable forest management		
Forest area with management plan		

Other general comments to the table

4 Table T4 – Forest characteristics

4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> 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).
Characteristics categories	
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.
Other naturally regenerated forest of introduced species (sub-category)	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species (sub-category)	Planted forest, where the planted/seeded trees are predominantly of introduced species.
Special categories	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Areas available for wood supply	1992	Secondary data source.
A. Del Lungo, J. Ball and J. Carle. 2006. Global planted forests thematic study. Results and analysis. FAO Working Paper FP/38.		Planted forest area	1990, 2000, 2005	Secondary data source.

4.2.2 Classification and definitions

National class	Definition
Plantation(s) (UNECE/FAO 2000)	Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either: <ul style="list-style-type: none"> • Of introduced species (all planted stands), or • Intensively managed stands of indigenous species which meet all the following criteria: one or two species at plantation, even age class, regular spacing.

4.2.3 Original data

UNECE/FAO reports the following figures for reference year 1992:

Category	Area
Forests	
Undisturbed by man	NDA
Semi-natural	NDA
Plantations	120
Other wooded land	
Undisturbed by man	0
Semi-natural	3 154

Total planted forest area (Protective planted area) was 118 000, 129 000, 134 000 ha for the years 1990, 2000 and 2005, respectively (Del Lungo et al. 2006). In the MCPFE 2007, no forests undisturbed by man existed in Greece.

4.3 Analysis and processing of national data

4.3.1 Estimation and forecasting

The planted area from FAO Working paper FP/38E was used.

4.3.2 Reclassification into FRA 2010 categories

The 2010 planted forest area was forecasted from the earlier figures with linear interpolation.

The planted forest areas were used as they are and rest of the forest area was classified as 'Other naturally regenerated forest'.

4.4 Data for Table T4

Table 4a

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	0	0	0	0
Other naturally regenerated forest	3181	3472	3618	3763
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
Planted forest	118	129	134	140
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
TOTAL	3299	3601	3752	3903

Table 4b

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	0	0	0	0
Bamboo (Forest and OWL)	0	0	0	0

4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		
Other naturally regenerating forest		
Planted forest		
Rubber plantations		
Mangroves		
Bamboo		

Other general comments to the table

5 Table T5 – Forest establishment and reforestation

No information is available for this reporting table.

6 Table T6 – Growing stock

6.1 FRA 2010 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees more than X cm in diameter at breast height (or above buttress if these are higher). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.
Growing stock of commercial species	Growing stock (see def. above) of commercial species.

6.2 National data

6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)			1992	Secondary data source. Growing stock information is a secretariat estimate based on different (unspecified) information sources

6.2.2 Classification and definitions

National class	Definition
Growing stock	The living tree component of the standing volume

6.2.3 Original data

Source: UNECE/FAO 2000 (secretariat estimate), reference year 1992

	Area	Gr.Stock	Vol/ha
	1000 ha	1000 m3	m3/ha
Total Forest	3 359	158 788	47.27

6.3 Analysis and processing of national data

6.3.1 Calibration

6.3.2 Estimation and forecasting

UNECE/FAO reports values for 1992 only. The values have been calculated by using the volume per hectare figures for 1992 multiplied by the total forest area estimates for the corresponding years as shown in T1. The UNECE/FAO further reports 57.5% of forest as predominantly broadleaved and the remaining 42.5% as predominantly coniferous.

6.4 Reclassification into FRA 2010 categories

6.5 Data for Table T6

Table 6a – Growing stock

FRA 2010 category	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	156	170	177	185	n.a.	n.a.	n.a.	n.a.
... of which coniferous	66	72	75	79	n.a.	n.a.	n.a.	n.a.
... of which broadleaved	90	98	102	106	n.a.	n.a.	n.a.	n.a.
Growing stock of commercial species	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 6b – Growing stock of the 10 most common species

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 st					
2 nd					
3 rd					
4 th					
5 th					
6 th					
7 th					
8 th					
9 th					
10 th					
Remaining					
TOTAL					

Note: Rank refers to the order of importance in terms of growing stock, i.e. 1st is the species with the highest growing stock. Year 2000 is the reference year for defining the species list and the order of the species.

Table 6c – Specification of threshold values

Item	Value	Complementary information
Minimum diameter (cm) at breast height ¹ of trees included in growing stock (X)		
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)		
Minimum diameter (cm) of branches included in growing stock (W)		
Volume refers to “above ground” (AG) or “above stump” (AS)		

6.6 Comments to Table T6

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total growing stock	The UNECE/FAO (TBFRA 2000) reported growing stock of 0 for Other wooded land but that figure has not been used as it is not believed to be credible.	
Growing stock of broadleaved / coniferous		
Growing stock of commercial species		
Growing stock composition	No data available for reporting on this table.	

Other general comments to the table

¹ Diameter at breast height (DBH) refers to diameter over bark measured at a height of 1.30 m above ground level or 30 cm above buttresses if these are higher than 1 m.

7 Table T7 – Biomass stock

7.1 FRA 2010 Categories and definitions

Category	Definition
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 2mm 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.

7.2 National data

7.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4.	M	BCEF	all	

7.2.2 Original data

Volume growing stock from T6 and area of forest from T1.

7.3 Analysis and processing of national data

For forests the Above-ground biomass is calculated using a BCEF of 0.8 (hardwoods) and 0.6 (conifers) based on a climatic zone of Mediterranean, dry tropical, subtropical with a stocking of between 41-80 m³/ha. The Below-ground biomass was derived by applying a root-shoot ratio of 0.28.

7.4 Data for Table T7

FRA 2010 category	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass	112	122	127	132	n.a.	n.a.	n.a.	n.a.
Below-ground biomass	31	34	35	37	n.a.	n.a.	n.a.	n.a.
Dead wood	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

7.5 Comments to Table T7

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Above-ground biomass		
Below-ground biomass		
Dead wood		

Other general comments to the table

8 Table T8 – Carbon stock

8.1 FRA 2010 Categories and definitions

Category	Definition
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 specified depth chosen by the country and applied consistently through the time series.

8.2 National data

8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4.	M	Carbon	all	

8.2.2 Original data

Biomass data from T7.

8.3 Analysis and processing of national data

The IPCC carbon fraction default value of 0.47 is used for all calculations.

8.4 Data for Table T8

FRA 2010 Category	Carbon (Million metric tonnes)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Carbon in above-ground biomass	52	57	59	62	n.a.	n.a.	n.a.	n.a.
Carbon in below-ground biomass	15	16	17	17	n.a.	n.a.	n.a.	n.a.

Sub-total: Living biomass	67	73	76	80	n.a.	n.a.	n.a.	n.a.
Carbon in dead wood	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Carbon in litter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sub-total: Dead wood and litter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Soil carbon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Soil depth (cm) used for soil carbon estimates	n.a.
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8.5 Comments to Table T8

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Carbon in above-ground biomass		
Carbon in below-ground biomass		
Carbon in dead wood		
Carbon in litter		
Soil carbon		

Other general comments to the table

9 Table T9 – Forest fires

9.1 FRA 2010 Categories and definitions

Category	Definition
Number of fires	Average number of vegetation fires per year in the country.
Area affected by fire	Average area affected by vegetation fires per year in the country.
Vegetation fire (supplementary term)	Any vegetation fire regardless of ignition source, damage or benefit.
Wildfire	Any <u>unplanned and uncontrolled</u> vegetation fire that, regardless of ignition source, may require suppression response, or other action according to agency policy.
Planned fire	A <u>management-ignited</u> vegetation fire that burns within prescription, i.e. the fire is confined to a predetermined area and produces the fire behaviour and fire characteristics required to attain planned fire treatment and/or resource management objectives.

9.2 National data

9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Fire	1990-1997	Secondary data source.

9.2.2 Classification and definitions

National class	Definition
Forest Fire	Fire which breaks out and spreads on forest and other wooded land or which breaks out on other land and spreads to forest and other wooded land. <i>Excludes:</i> Prescribed or controlled burning, usually with the purpose of reducing or eliminating the quantity of accumulated fuel on the ground.

9.2.3 Original data

Source: UNECE/FAO, 2000.

Category	1990	1991	1992	1993	1994	1995	1996	1997
	1000 hectares							
Area of Forest burned	18.49	13.05	49.56	24.20	23.39	9.04	7.59	12.60
Area of Other wooded land burned	NDA	NDA	NDA	23.73	29.25	10.14	11.66	16.92
Total area burned	18.49	13.05	49.56	47.93	52.64	19.18	19.25	29.52

9.3 Analysis and processing of national data

9.3.1 Estimation and forecasting

Due to lack of complete time series, 5 year averages have not been calculated. Instead, the 1990 value has been used directly and the value for 1997 has been used for year 2000.

9.4 Data for Table T9

Table 9a

FRA 2010 category	Annual average for 5-year period					
	1990		2000		2005	
	1000 hectares	number of fires	1000 hectares	number of fires	1000 hectares	number of fires
Total land area affected by fire	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
... of which on forest	18.49	n.a.	12.60	n.a.	n.a.	n.a.
... of which on other wooded land	n.a.	n.a.	16.92	n.a.	n.a.	n.a.
... of which on other land	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 9b

FRA 2010 category	Proportion of forest area affected by fire (%)		
	1990	2000	2005
Wildfire	n.a.	n.a.	n.a.
Planned fire	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages of annually affected areas for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively

9.5 Comments to Table T9

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Area affected by fire		Due to lack of complete time series, 5 year averages have not been calculated. Instead, the 1990 value has been used directly and the value for 1997 has been used for year 2000.
Number of fires		
Wildfire / planned fire		
Other general comments to the table		

10 Table T10 – Other disturbances affecting forest health and vitality

No information is available for this reporting table.

11 Table T11 – Wood removals and value of removals

11.1 FRA 2010 Categories and definitions

Category	Definition
Industrial roundwood removals	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removals	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

11.2 National data

11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FAOSTAT. 2009	H	Industrial roundwood, Woodfuel	1988-1992 1998-2002 2003-2007	

11.2.2 Original data

	Production 1000m3 under bark							
	1988	1989	1990	1991	1992	1998	1999	2000
Industrial roundwood	944	1109	1146	1196	684	495	811	644
Woodfuel	2158	1382	1346	1350	1637	1197	1403	1601
	2001	2002	2003	2004	2005	2006	2007	
Industrial roundwood	515	498	599	469	519	462	948	
Woodfuel	1401	1093	1074	1225	1004	1100	795	

11.3 Analysis and processing of national data

A conversion factor of 1.15 was used to convert volume under bark to volume over bark.

	Production 1000m3 over bark							
	1988	1989	1990	1991	1992	1998	1999	2000
Industrial roundwood	1086	1275	1318	1375	787	569	933	740
Woodfuel	2482	1589	1548	1553	1883	1377	1613	1842
	2001	2002	2003	2004	2005	2006	2007	
Industrial roundwood	592	573	689	539	596	531	1090	
Woodfuel	1611	1257	1235	1409	1155	1265	914	

11.3.1 Estimation and forecasting

Estimation and forecasting was not needed. The figures for the reporting years refer to the five year averages for the periods 1988-1992, 1998-2002 and 2003-2007 respectively.

	5-year averages		
	1990	2000	2005
Industrial roundwood	1168	681	689
Woodfuel	1811	1540	1195

11.4 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m ³ o.b.)	1168	681	689	1811	1540	1195
... of which from forest	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Unit value (local currency / m ³ o.b.)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total value (1000 local currency)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages of annually affected areas for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively.

	1990	2000	2005
Name of local currency			

11.5 Comments to Table T11

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of industrial roundwood removals		
Total volume of woodfuel removals		
Unit value		
Total value		

Other general comments to the table

12 Table T12 – Non-wood forest products removals and value of removals

No information is available for this reporting table.

13 Table T13 – Employment

No information is available for this reporting table.

14 Table T14 – Policy and legal framework

No information is available for this reporting table.

15 Table T15 – Institutional framework

No information is available for this reporting table.

16 Table T16 – Education and research

No information is available for this reporting table.

17 Table T17 – Public revenue collection and expenditure

No information is available for this reporting table.