Forestry Department
Food and Agriculture Organization of the United Nations

GLOBAL FOREST RESOURCES ASSESSMENT

COUNTRY REPORTS

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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 2005 (FRA 2005), which is the most comprehensive assessment to date. More than 800 people have been involved, including 172 national correspondents and their colleagues, an Advisory Group, international experts, FAO staff, consultants and volunteers. Information has been collated from 229 countries and territories for three points in time: 1990, 2000 and 2005.

The reporting framework for FRA 2005 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes more than 40 variables related to the extent, condition, uses and values of forest resources. More information on the FRA 2005 process and the results - including all the country reports - is available on the FRA 2005 Web site (www.fao.org/forestry/fra2005).

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1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2005 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 *in situ*; 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
Land Fund of the Republic of Uzbekistan (Uzbekiston Respublikasining Er Fondi)	H	Total land area, total area of the state forest resources	1990, 2000, 2004	
Distribution of the State Forest Resources as to Land Categories *	M	Forested land, non-forested land	1990, 2000, 2004	
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Lands covered by forests, free-growing forest stands, forest plantations and nurseries	1990, 2000, 2004	
FAOSTAT	H	Total land area, Inland water bodies		

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

1.2.2 Classification and definitions

National class	Definition
Forested land	
Covered by forest	Forests with closed crowns, where the need of care of soil is not required, the height of trees and annual growth of the last year corresponds to criteria of the Table of Quality Estimation for the main species, regular arrangement of the main species; young forests
• including forest plantations	Forest stands and plantations planted for protective and industrial purposes, and for forest restoration
Sparse forest stands	Single trees and trees combined with bushes, not corresponding to standards, crowns without required density and closing of crowns, insufficient annual growth and non-regular arrangement of the main species
Forest nurseries	Land assigned for growing of plantings in the special places, not in the forests. Seedlings and graftings are grown on these lands while they are not replanted

	to forests, usually during one-three years depending on species.
Uncovered by forest	Sites of: forest fires, glades, clearings, waste lands uncovered by trees and bushes
Non-forested land	
Other land	Land assigned for agricultural area, hay fields, pastures, arable land, farms, wetlands, glaciers etc.
Gardens and vineyards	Gardens and vineyards
Water reservoirs	Main rivers, lakes and water reservoirs

1.2.3 Original data

National class	**Area, 1000 Ha (1990)**	**Area, 1000 Ha (2000)**	**Area, 1000 Ha (2004)**
Forested land			
Covered by forest	1895.3	**3210.9**	**3294.0**
• including forest plantations*	222.4	**413.3**	**533.8**
Sparse forest stands	1306.1	1594.7	**904.1**
Forest nurseries	**0.7**	**0.9**	**1.0**
Uncovered by forest	1781.6	2158.6	993.7
Non-forested land			
Other land	37180.3	33933.3	35715.9
Gardens and vineyards	308.2	361.4	348.1
Total**	42472.2	41259.8	41256.8

* Area "Forest Plantations" is included in the area "Covered by Forests" and therefore it should be excluded when calculating the total land area.
** Total land area of the country was reduced within 1990 and 2000 by 1212.4 thousand Ha, the reason is return of the lands rented for long-term use from the neighbouring countries.

1.3 Analysis and processing of national data

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes "Covered by forest", "Sparse forest stands" and "Uncovered by forest". It is evident that the classification of "Sparse forest stands" and "Uncovered by forest" in 1990 are including large areas that are classified as "Covered by forest" in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas of "Forest nurseries", "Covered by forest" and the sub-category "Including plantations" for the year 2000 are consistent with 2004. However, due to insurmountable differences in the other categories it is not possible to create consistent time-series.

1.3.1 Calibration

For calibration the FAOSTAT data were used. The calibration was applied only to the "Other land" category, because the area of the country is changed as a result of returning of the lands rented from other countries. The lands rented were assigned only for the cultivation of agricultural crops.

1.3.2 Estimation and forecasting

The latest data (2004) is used for reporting year 2005. The national classes "Forest nurseries", "Covered by forest" with sub-category "Including plantations" for the year 2000 and 2004 is used to extrapolate the 1990 figure. Insufficient data (ID) is reported due to inconsistencies in national classification.

National class	**Area, 1000 Ha (1990)**	**Area, 1000 Ha (2000)**	**Area, 1000 Ha (2004)**
Forested land			
Covered by forest	3044.7	3210.9	3294.0
• including forest plantations*	172.3	413.3	533.8
Forest nurseries	0.7	0.9	1.0
Sparse forest stands	ID	ID	904.1

1.4 Reclassification into FRA 2005 classes

The reclassification applies to 2000 and 2004 data.
It is assumed that the 2004 "Sparse forest stands" area is correct but lack of consistent data in 1990 and 2000 does not allow reclassification into "Other wooded land".

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National classes	**Percentage of a National class belonging to a FRA Class**				
	Forests	**Other Wooded Land**	**Other Land with Tree Cover**	**Other Land**	**Inland Water**
Percentage	%	%	%	%	%
Covered by forest, including forest plantations	100				
Sparse forest stands		100			
Forest nurseries	100				
Uncovered by forest				100	
Other land				100	
Gardens and vineyards				100	

1.5 Data for National reporting table T1

FRA 2005 Categories	**Area (1000 hectares)**		
	1990	**2000**	**2005**
Forest	3045	3212	3295
Other wooded land	ID	ID	904
Other land	38379	38212	37225
...of which with tree cover	NDA	NDA	NDA
Inland water bodies*	3316	3316	3316
TOTAL	**44740**	**44740**	**44740**

*FAOSTAT figure

1.6 Comments to National reporting table T1

The latest inventory was carried out in 1988. Since that time the information about forest fund status is collected from the forestry enterprises.

The information collection was made from the Registration Forms taken in the forestry sector of the Republic of Uzbekistan. This registration system was entered during Soviet period and was obligatory for all the republics of the Soviet Union.

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes “Covered by forest”, “Sparse forest stands” and “Uncovered by forest”. It is evident that the classification of “Sparse forest stands” and “Uncovered by forest” in 1990 are including large areas that are classified as “Covered by forest” in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas of “Forest nurseries”, “Covered by forest” and the sub-category “Including plantations” for the year 2000 are consistent with 2004. However, due to insurmountable differences in the other categories it is not possible to create consistent time-series.

The latest data (2004) is used for reporting year 2005. The national classes “Forest nurseries”, “Covered by forest” with sub-category “Including plantations” for the year 2000 and 2004 is used to extrapolate the 1990 figure. Insufficient data (ID) is reported due to inconsistencies in national classification.

It is assumed that the 2004 “Sparse forest stands” area is correct but lack of consistent data in 1990 and 2000 does not allow reclassification into FRA 2005 category “Other wooded land”.

2 Table T2 – Ownership of Forest and Other wooded land

2.1 FRA 2005 Categories and definitions

Category	Definition
Private ownership	Land owned by individuals, families, private co-operatives, corporations, industries, religious and educational institutions, pension or investment funds, and other private institutions.
Public ownership	Land owned by the State (national, state and regional governments) or government-owned institutions or corporations or other public bodies including cities, municipalities, villages and communes.
Other ownership	Land that is not classified either as "Public ownership" or as "Private ownership".

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Distribution of the State Forest Resources as to land categories *	M	State forest resources	1990, 2000	
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M		1990, 2000	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

2.2.2 Classification and definitions

The total forest fund of the Republic of Uzbekistan is distributed between the following institutions: Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU, State Committee on Nature Protection, and other institutions (Uzbek Research Institute of Forestry, Hokimiyat of Tashkent Region etc.). All the listed organizations are related to the state institutions. No definitions are available.

2.2.3 Original data

Data imported from T1

2.3 Analysis and processing of national data

2.3.1 Calibration

Not needed, calibrated T1 data used.

2.3.2 Estimation and forecasting

Not needed, T1 data used.

2.4 Reclassification into FRA 2005 classes

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National Classes of Ownership	Percentage of a National class belonging to a FRA Class		
	Public Ownership	Private Ownership	Other or unspecified Ownership
Percentage	%	%	%
State	100	0	0

2.5 Data for National reporting table T2

FRA 2005 Categories	Area (1000 hectares)			
	Forest		Other wooded land	
	1990	2000	1990	2000
Private ownership	0	0	0	0
Public ownership	3045	3212	ID	ID
Other ownership	0	0	0	0
TOTAL	3045	3212	ID	ID

2.6 Comments to National reporting table T2

3 Table T3 – Designated function of Forest and Other wooded land

3.1 FRA 2005 Categories and definitions

Types of designation

Category	Definition
Primary function	A designated function is considered to be primary when it is significantly more important than other functions. This includes areas that are legally or voluntarily set aside for specific purposes.
Total area with function	Total area where a specific function has been designated, regardless whether it is primary or not.

Designation categories

Category / Designated function	Definition
Production	Forest / Other wooded land designated for production and extraction of forest goods, including both wood and non-wood forest products.
Protection of soil and water	Forest / Other wooded land designated for protection of soil and water.
Conservation of biodiversity	Forest / Other wooded land designated for conservation of biological diversity.
Social services	Forest / Other wooded land designated for the provision of social services.
Multiple purpose	Forest / Other wooded land designated to any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of social services and where none of these alone can be considered as being significantly more important than the others.
No or unknown function	Forest / Other wooded land for which a specific function has not been designated or where designated function is unknown.

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Distribution of the State Forest Resources as to land categories *	M		1990, 2000, 2004	
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M		1990, 2000, 2004	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

3.2.2 Classification and definitions

National class	Sub-class	Definition
Covered by forest		Forests with closed crowns, where the need of care of soil is not required, the height of trees and annual growth of the last year corresponds to criteria of the Table of Quality Estimation for the main species, regular arrangement of the main species; young forests
	... of which Natural and planted forests	Forests with closed crowns, where the height of trees and annual growth of the last year corresponds to criteria of the Table of Quality Estimation for the main species, regular arrangement of the main species
	... of which Production plantations	Forest stands and plantations used for industrial purposes
	... of which Conservation of biodiversity	Reserves and national parks
Sparse forest stands and forest nurseries		Forests combined with bushes requiring the additional care before restoration, not corresponding to standards, crowns without required density and closing of crowns, annual growth and non-regular arrangement of the main species, as well as land assigned for growing of plantings

3.2.3 Original data

National class	Sub-class	Area (1000 hectares)		
		1990	**2000**	**2004**
Covered by forest		**1895.3**	**3210.9**	**3294.0**
	... of which Natural and planted forests	1722.7	2995.0	3013.8
	... of which Production plantations	3.1	4.8	5.1
	... of which Conservation of biodiversity (reserves, national parks)	169.5	211.1	275.1
Sparse forest stands		1306.1	1594.7	904.1
Forest nurseries		0.7	0.9	1.0
Total		**3202.1**	**4806.5**	**4199.1**

3.3 Analysis and processing of national data

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes “Covered by forest” and “Sparse forest stands”. It is very likely that the classification of “Sparse forest stands” for 1990 is including a large area that is classified as “Covered by forest” in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas of sub-classes: “Natural and planted forests”, “Production plantations” and “Conservation of biodiversity” for the year 2000 are consistent with 2004. However, due to insurmountable differences in classification of “Sparse forest stands” it is not possible to create consistent time-series for this category.

3.3.1 Calibration

Not needed.

3.3.2 Estimation and forecasting

The latest data (2004) is used for reporting year 2005. The sub-classes: “Natural and planted forests”, “Production plantations” and “Conservation of biodiversity” for the year 2000 and 2004 are used to extrapolate the 1990 figure. Insufficient Data (ID) is reported due to inconsistencies in national classification.

National class	Sub-class	Area (1000 hectares)		
		1990	2000	2004
Covered by forest		**3044.7**	**3210.9**	**3294.0**
	... of which Natural and planted forests	2957.4	2995.0	3013.8
	... of which Production plantations	4.2	4.8	5.1
	... of which Conservation of biodiversity (reserves, national parks)	83.1	211.1	275.1
Sparse forest stands		ID	ID	904.1
Forest nurseries		0.7	0.9	1.0

3.4 Reclassification into FRA 2005 classes

National classes and sub-classes	Percentage of a National class belonging to a FRA Primary function			
	Forest			Other wooded land
	Production	Protection of soil and water	Conservation of biodiversity	Protection of soil and water
Natural and planted forest		100%		
Production plantations	100%			
Conservation of biodiversity (reserves and national parks)			100%	
Sparse forest stands				100%
Forest nurseries	100%			

Total area with function

The total area with function Production is estimated as total area forest less the area designated for conservation.

The total area with function for Protection of soil and water and Conservation of biodiversity is calculated as Total forest area less area serving primary function Production.

3.5 Data for National reporting table T3

FRA 2005 Categories / Designated function	Area (1000 hectares)					
	Primary function			Total area with function		
	1990	2000	2005	1990	2000	2005
Forest						
Production	5	6	6	2962	3001	3020
Protection of soil and water	2957	2995	3014	3040	3206	3289
Conservation of biodiversity	83	211	275	3040	3206	3289
Social services	NDA	NDA	NDA	NDA	NDA	NDA
Multiple purpose	NDA	NDA	NDA	not appl.	not appl.	not appl.
No or unknown function	NDA	NDA	NDA	not appl.	not appl.	not appl.
Total – Forest	**3045**	**3212**	**3295**	**not appl.**	**not appl.**	**not appl.**
Other wooded land						
Production	NDA	NDA	NDA	NDA	NDA	NDA
Protection of soil and water	ID	ID	904	ID	ID	904
Conservation of biodiversity	NDA	NDA	NDA	ID	ID	904
Social services	NDA	NDA	NDA	NDA	NDA	NDA
Multiple purpose	NDA	NDA	NDA	not appl.	not appl.	not appl.
No or unknown function	NDA	NDA	NDA	not appl.	not appl.	not appl.
Total – Other wooded land			**904**	**not appl.**	**not appl.**	**not appl.**

3.6 Comments to National reporting table T3

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes “Covered by forest” and “Sparse forest stands”. It is very likely that the classification of “Sparse forest stands” for 1990 is including a large area that is classified as “Covered by forest” in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas of sub-classes: “Natural and planted forests”, “Production plantations” and “Conservation of biodiversity” for the year 2000 are consistent with 2004. However, due to insurmountable differences in classification of “Sparse forest stands” it is not possible to create consistent time-series for this category.

The latest data (2004) is used for reporting year 2005. The sub-classes: “Natural and planted forests”, “Production plantations” and “Conservation of biodiversity” for the year 2000 and 2004 are used to extrapolate the 1990 figure. Insufficient Data (ID) is reported due to inconsistencies in national classification.

4 Table T4 – Characteristics of Forest and Other wooded land

4.1 FRA 2005 Categories and definitions

Category	Definition
Primary	Forest / Other wooded land of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Modified natural	Forest / Other wooded land of naturally regenerated native species where there are clearly visible indications of human activities.
Semi-natural	Forest / Other wooded land of native species, established through planting, seeding or assisted natural regeneration.
Productive plantation	Forest / Other wooded land of introduced species, and in some cases native species, established through planting or seeding mainly for production of wood or non wood goods.
Protective plantation	Forest / Other wooded land of native or introduced species, established through planting or seeding mainly for provision of services.

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Distribution of the State Forest Resources as to land categories *	M		1990, 2000, 2004	
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M		1990, 2000, 2004	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

4.2.2 Classification and definitions

National class	Definition
Forest plantations	Forests made by people for forests restoration
Production plantations	Forest stands and plantations used for industrial purposes
Shelterbelts	Protective forest belt planted to protect field crops and “green belts” around cities, villages, railroads, roads and hydro technical constructions (water reservoirs).
Reserves	Territory assigned for biodiversity conservation where any human activity is completely prohibited
Other area covered by forest	Other forests excluding forest and production plantations, reserves and shelterbelts

4.2.3 Original data

National class	Sub-class	Area (1000 hectares)		
		1990	2000	2004
Covered by forest		**1895.3**	**3210.9**	**3294.0**
	... of which Forest plantations	222.4	413.3	533.8
	... of which Production plantations	3.1	4.8	5.1
	... of which Shelterbelts	21.1	45.7	55.5
	... of which Reserves	56.7	56.7	56.7
	... of which Other area covered by forest	1592.0	2690.4	2642.9
Sparse forest stands		1306.1	1594.7	904.1

4.3 Analysis and processing of national data

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes "Covered by forest" and "Sparse forest stands". It is very likely that the classification of "Sparse forest stands" for 1990 is including a large area that is classified as "Covered by forest" in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas five sub-classes of "Covered by forest" for the year 2000 are consistent with 2004. However, due to insurmountable differences in classification of "Sparse forest stands" it is not possible to create consistent time-series for this category.

4.3.1 Calibration

Not needed.

4.3.2 Estimation and forecasting

The latest data (2004) is used for reporting year 2005. The five sub-classes of national class "Covered by forest" for the year 2000 and 2004 are used to extrapolate the 1990 figure. Insufficient Data (ID) is reported due to inconsistencies in national classification.

National class	Sub-class	Area (1000 hectares)		
		1990	2000	2004
Covered by forest		**3044.7**	**3210.9**	**3294.0**
	... of which Forest plantations	172.3	413.3	533.8
	... of which Production plantations	4.2	4.8	5.1
	... of which Shelterbelts	26.1	45.7	55.5
	... of which Reserves	56.7	56.7	56.7
	... of which Other area covered by forest	2785.4	2690.4	2642.9
Sparse forest stands		ID	ID	904.1

4.4 Reclassification into FRA 2005 classes

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National classes	Percentage of a National class belonging to a FRA Class				
	Primary	Modified natural	Semi-natural	Productive plantation	Protective plantation
Forest plantations			100		
Production plantations				100	
Shelterbelts					100
Reserves	100				
Other area covered by forest		100			

4.5 Data for National reporting table T4

FRA 2005 Categories	Area (1000 hectares)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Primary	57	57	57	NDA	NDA	NDA
Modified natural	2785	2690	2643	ID	ID	904.1
Semi-natural	172	413	534	NDA	NDA	NDA
Productive plantation	4	5	5	NDA	NDA	NDA
Protective plantation	26	46	56	NDA	NDA	NDA
TOTAL	**3044**	**3211**	**3295**	**ID**	**ID**	**904.1**

4.6 Comments to National reporting table T4

"Other wooded land" figures were taken from the Form 1 "Under stocked stand" and cannot be classified as primary, semi-natural and cannot be related to productive and protective plantations. Therefore the Other wooded land data were considered as Modified Natural.

There are large inconsistencies in the national classification of original data for the period 1990-2004. The main discrepancy is found in the classification of national classes "Covered by forest" and "Sparse forest stands". It is very likely that the classification of "Sparse forest stands" for 1990 is including a large area that is classified as "Covered by forest" in 2004. In order to generate a consistent time series for FRA 2005 reporting the most recent (2004) classification has been applied. It is assumed that the areas five sub-classes of "Covered by forest" for the year 2000 are consistent with 2004. However, due to insurmountable differences in classification of "Sparse forest stands" it is not possible to create consistent time-series for this category.

5 Table T5 – Growing stock

5.1 FRA 2005 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.
Commercial growing stock	The part of the growing stock of species that are considered as commercial or potentially commercial under current market conditions, and with a diameter at breast height of Z cm or more.

5.2 National data

5.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Growing stock	1990, 2000	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

5.2.2 Classification and definitions

Comply with FRA 2005 definitions.

5.2.3 Original data

National classes	Volume (million cubic meters over bark)		
	Forest and other wooded land		
	1990	2000	2004
Growing stock	10.36	18.53	23.05
Commercial growing stock	0.033	0.034	0.034

5.3 Analysis and processing of national data

5.3.1 Calibration

No calibration was required.

5.3.2 Estimation and forecasting

Forecasting 2005 by linear extrapolation (2000 and 2004)

FRA 2005 Categories	Volume (million cubic meters over bark)		
	Forest and other wooded land		
	1990	2000	2005
Growing stock	10.36	18.53	24.18
Commercial growing stock	0.033	0.034	0.034

5.4 Reclassification into FRA 2005 classes

No reclassification was needed.

5.5 Data for National reporting table T5

FRA 2005 Categories	Volume (million cubic meters over bark)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Growing stock	10.36	18.53	24.18	N/A	N/A	N/A
Commercial growing stock	0.033	0.034	0.034	N/A	N/A	N/A

Specification of country threshold values	Unit	Value	Complementary information
1. Minimum diameter at breast height of trees included in Growing stock (X)	cm	12	
2. Minimum diameter at the top end of stem (Y) for calculation of Growing stock	cm	-	
3. Minimum diameter of branches included in Growing stock (W)	cm	-	
4. Minimum diameter at breast height of trees in Commercial growing stock (Z)	cm	-	
5. Volume refers to "Above ground" (AG) or "Above stump" (AS)	AG / AS		
6. Have any of the above thresholds (points 1 to 4) changed since 1990	Yes/No		
7. If yes, then attach a separate note giving details of the change	Attachment		

5.6 Comments to National reporting table T5

Forests in Uzbekistan are characterised as the 1st category forests and have mainly the protective function. The species mostly distributed in the forests of Uzbekistan are saxaul (Haloxylon spp.) and juniper (Juniperus spp.). The saxaul is a desert tree, this species is not high with rather small diameter of trunk. In the past in 1960th it was classified as a bush, and later was transferred to the category of trees.

The juniper is characterised with very slow growth. Six-year juniper trees can reach only one meter of height. This is one of the reasons why they cannot be restored easily in the mountain areas of the country.

6 Table T6 – Biomass stock

6.1 FRA 2005 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 living 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 biomass	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.

6.2 National data

6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
IPCC Good Practice Guidance for LULUCF	H	Wood density, biomass expansion factors, belowground and aboveground biomass ratio		
Giordano, G. 1971. *Tecnologia del legno.* UTET, Torino	H	Wood density Ulmus and Juniperus.		

6.2.2 Classification and definitions

Not applicable

6.2.3 Original data

Data imported from T10

FRA 2005 Categories / Species name (Scientific name and common name)	Growing Stock in Forests (million cubic meters)
	1990
Henopodiaceae (Haloxylon spp.)	3.8
Cuppressaceae (Juniperus spp.)	4.2
Populus diversifolia	0.7
Other Populus spp. (Populus alba, P. pyramidalis, P. nigra, P. bolleana, P. bachofenii, P. Uzbekistanica and others and their hybrids)	0.085
Ulmaceae (Ulmus spp.)	0.059
Aceracea (Acer spp.)	0.049
Leguminosa (Acacia spp.)	0.053
Salicaceae (Salix spp.)	0.051
Fraxinus spp.	0.033
Betulacea (Betula spp.)	0.025
Remainder of species	1.305
TOTAL	**10.36**

Data imported from T5

FRA 2005 Categories	Volume (million cubic meters over bark)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Growing stock	10.36	18.53	24.18	N/A	N/A	N/A

6.3 Analysis and processing of national data

Species	GS mill m3	Wood dens	BEF	R/S Ratio	D/L Ratio	AGB	BGB	DWB
Chenopodiaceae (Haloxylon spp.)	3.8	0.5	1.4	0.43	0.14	2.66	1.1438	0.532532
Cuppressaceae (Juniperus spp.)	4.2	0.6	1.3	0.46	0.14	3.276	1.50696	0.669614
Populus diversifolia	0.7	0.35	1.4	0.4	0.14	0.343	0.1372	0.067228
Other Populus spp. (Populus alba, P. pyramidalis, P. nigra, P. bolleana, P. bachofenii, P. Uzbekistanica and others and their hybrids)	0.085	0.35	1.4	0.4	0.14	0.04165	0.01666	0.008163
Ulmaceae (Ulmus spp.)	0.059	0.6	1.4	0.26	0.14	0.04956	0.012886	0.008742
Aceracea (Acer spp.)	0.049	0.52	1.4	0.26	0.14	0.03567	0.009275	0.006293
Leguminosa (Acacia spp.)	0.053	0.76	1.4	0.45	0.14	0.05639	0.025376	0.011448
Salicaceae (Salix spp.)	0.051	0.45	1.4	0.26	0.14	0.03213	0.008354	0.005668
Fraxinus spp.	0.033	0.57	1.4	0.26	0.14	0.02633	0.006847	0.004645
Betulacea (Betula spp.)	0.025	0.51	1.4	0.26	0.14	0.01785	0.004641	0.003149
Remainder of species	1.305	0.5	1.4	0.3	0.14	0.9135	0.27405	0.166257
TOTAL	**10.36**					**7.45209**	**3.146048**	**1.483739**

Calculation of general conversion factors between biomass and growing stock

AGB / GS o.b.	0.7193
BGB / GS o.b	0.3037
DWB / GS o.b.	0.1432

6.4 Data for National reporting table T6

FRA 2005 Categories	Biomass (million metric tonnes oven-dry weight)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Above-ground biomass	7.5	13.3	17.4	NDA	NDA	NDA
Below-ground biomass	3.1	5.6	7.3	NDA	NDA	NDA
Dead wood biomass	1.5	2.7	3.5	NDA	NDA	NDA
TOTAL	12.1	21.6	28.2	NDA	NDA	NDA

6.5 Comments to National reporting table T6

7 Table T7 – Carbon stock

7.1 FRA 2005 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 living 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 biomass	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 a minimum diameter chose by the country for lying dead (for example 10 cm), in various states of decomposition above the mineral or organic soil. This includes the litter, fumic, and humic layers.
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.

7.2 National data

Data imported from T6.

FRA 2005 Categories	Biomass (million metric tonnes oven-dry weight)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Above-ground biomass	7.5	13.3	17.4	NDA	NDA	NDA
Below-ground biomass	3.1	5.6	7.3	NDA	NDA	NDA
Dead wood biomass	1.5	2.7	3.5	NDA	NDA	NDA
TOTAL	12.1	21.6	28.2	NDA	NDA	NDA

7.3 Analysis and processing of national data

Multiply biomass stock from T6 by 0.5 gives

	Carbon stock (million tonnes)		
	1990	2000	2005
Above-ground biomass	3.7	6.7	8.7
Below-ground biomass	1.6	2.8	3.7
Dead wood biomass	0.7	1.3	1.7

7.4 Data for National reporting table T7

FRA 2005 Categories	Carbon (Million metric tonnes)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Carbon in above-ground biomass	3.7	6.7	8.7	NDA	NDA	NDA
Carbon in below-ground biomass	1.6	2.8	3.7	NDA	NDA	NDA
Carbon in dead wood	0.75	1.35	1.75	NDA	NDA	NDA
Soil carbon to a depth of _____ cm	NDA	NDA	NDA	NDA	NDA	NDA
TOTAL CARBON	**6**	**10,8**	**14,1**	**NDA**	**NDA**	**NDA**

8 Table T8 – Disturbances affecting health and vitality

8.1 FRA 2005 Categories and definitions

Category	Definition
Disturbance by fire	Disturbance caused by wildfire, independently whether it broke out inside or outside the forest/OWL.
Disturbance by insects	Disturbance caused by insect pests that are detrimental to tree health.
Disturbance by diseases	Disturbance caused by diseases attributable to pathogens, such as a bacteria, fungi, phytoplasma or virus.
Other disturbance	Disturbance caused by other factors than fire, insects or diseases.

8.2 National data

8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Forest fire, pests, diseases	1990, 2000	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

8.2.2 Classification and definitions

No definitions are required.

8.2.3 Original data

Forest Area (1000 ha) affected by	1991	1998	1999	2000	2001	2002
Forest fires	0.073	0.066	N/A	0.073	0.131	0.009
Pest	19.1	22.587	21.015	19.099	16.977	14.657
Diseases	8.2	6.722	2.480	8.286	8.434	9.049

8.2.4 Analysis and processing of national data

Forest Area (1000 ha) affected by	1990	2000
Forest fires	0.073	0.070
Pest	19.1	18.867
Diseases	8.2	6.994
Total	**27.373**	**25.931**

Note: The data for 1990 was taken from the report for 1991.
The 2000 figure is the average of 1998 – 2002.

8.3 Reclassification into FRA 2005 classes

National Classes	Percentage of a National Class belonging to a FRA Class			
	Disturbance by fire	Disturbance by insects	Disturbance by diseases	Other disturbance
	%	%	%	%
Forest fires	100			
Pests		100		
Diseases			100	

8.4 Data for National reporting table T8

FRA-2005 Categories	Average annual area affected (1000 hectares)			
	Forests		Other wooded land	
	1990	2000	1990	2000
Disturbance by fire	0.073	0.070	N/A	N/A
Disturbance by insects	19.1	18.867	N/A	N/A
Disturbance by diseases	8.2	6.994	N/A	N/A
Other disturbance	-	-	N/A	N/A
Total	**27.373**	**25.931**	**N/A**	**N/A**

8.5 Comments to National reporting table T8

The data indicated in the box "Forests" include the data for the "Other wooded land" category as well. There is not done the division of the data as to the categories of the forests in the reporting. All data is applicable to the total forest area.

Below the lists of forest pests and diseases agents extended in Uzbekistan are given:

Pests:

1. Acmaeodera glazunovi Sem.
2. Aeolesthes sarta Solsk.
3. Agelastica orientalis Baly
4. Agrilus bajcalensis Obenb.
5. Agrilus tschitscherininni Sem.
6. Agrilus uzbekistanus v. Stepanov sp. nova
7. Agrilus viridis L.
8. Agrotis segetum Schiff.
9. Amphimallon glabripennis Ball.
10. Amphimallon solstitialis L.
11. Amphimallon solstitialis mesasiaticus Medw.
12. Anaesthetis sp.
13. Anthaxia aurulenta Schr.
14. Anthaxia conradti Sem.
15. Anthaxia richteri Stepanov
16. Aphis laburni Kalt.
17. Aphis saliceti Kalt.
18. Aspidiotus slavonica Green.
19. Buprestis pista Pall.
20. Callipterus tiliae L.
21. Capnodis henningi Fald.
22. Capnodis miliaris Kl.-metallica Ball.
23. Capnodis parumstriata Ball.
24. Chaetoptelius westitus Rey
25. Chaitophorinella negundinis Thos.
26. Chaitophorus albus Mordw.
27. Chaitophorus jaxarti Nevs.
28. Chromaphis julandicola Kalt.
29. Chrysobothris affinis F. subsp. tetragramma Men.
30. Chrysobothris affinis subsp. nevskii Richt.
31. Cleroclytus vestitus Jak.
32. Cossus cossus L.

33. Cratomerus intermedius Obenb.
34. Dicerca aenea L.
35. Drosicha turcestanica Arch.
36. Eotetranychus turkestani Ugar. et. Nic.
37. Eriosoma lanuginosum Htg.
38. Eriosoma ulmi L.
39. Estenoborus perrisii Chap.
40. Eulecanium corni Bouche.
41. Euproctis karghalica Moor.
42. Eurytoma plotnicovi Nic.
43. Galerucella luteola Mull.
44. Gryllotalpa unispina Sauss.
45. Hyponomeuta malinelus Zell.
46. Hyponomeuta padellus L.
47. Hypothenemus machnovskii Socan.
48. Labidostomis stenostoma Ws.
49. Lecanium persicae Fabr.-March.
50. Lepidosaphes ulmi L.
51. Lithocolletis populifoliella Z.
52. Luperus hissaricus Oglob.
53. Lytta menestriesi Fald.
54. Malasoma parallela Stgr.
55. Megastigmus juniperi Nik.
56. Melanophyla picta Pall.
57. Melasoma populi L.
58. Melolontha afflicta Ball.
59. Monosteira inermis Horw.
60. Oberea ruficeps Fisch.
61. Ocheria dispar L.
62. Paranthrene kungessana Alph.
63. Parlatoria oleae Colvel.
64. Pemphigus bursarius Tuller.
65. Pemphigus lactucarius Pass.
66. Phloeosinus turkestanicus Sem.
67. Plagiodera versicolora Laich.
68. Polyphylla adspersa Motsch.
69. Porthetria dispar L.
70. Pseudococcus comstocki Kuw.
71. Rhynchites auratus Scop.
72. Scolytus fasciatus Rtt.
73. Scolytus multistriatus Marsch.
74. Scolytus scolytus Fr.
75. Scotylus mediterraneus Egg.
76. Scotylus rugulosus samarkandicus But.
77. Semanotus semenovi Okun.
78. Sirex sah Mocs.
79. Teratulytta ptlosella Sols.
80. Tetraneura ulmi gallarum De Geer
81. Tetranychus urticae Koch.
82. Trichoferus turkestanicus Heyd.
83. Tropinata turanica Rtt.
84. Tuberculatus quercus Kalt.

85. Tuberocallis saltans Nevs.
86. Turanium pilosum Sols.
87. Turanium scabrum Kr.
88. Xylotrechus grumi Sem.
89. Xylotrechus namanganensis Heyd.-var. Bucharensis Sem.

Diseases

1. Armillaria mellea Quel
2. Clasterosporium carpophilum Aderh.
3. Cylindrosporium aceris Sacc.
4. Cylindrosporium pistaciae Desm.
5. Exoascus amygdali Jacz.
6. Exoascus deformans Fuck.
7. Exoascus pruni Fuck. var. divaricata J.
8. Fomes fomentarius Gill.
9. Fomes fulvus (Scop.) Gill.
10. Fomes igniarius (L) Gill.
11. Fomes juniperinus Sacc. et Syd.
12. Fomes rimosus (Bek.) Fr.
13. Fusicladium amygdali Ducom.
14. Fusicladium cerasii Rabeuh.
15. Fusicladium dendriticum Fuck.
16. Fusicladium orbiculatum Thneman
17. Fusicladium radiosum Lind.
18. Fusicladium saliciperdum Lind.
19. Graphium ulmi Schwar.
20. Gymnosporangium confusum Plower
21. Gymnosporangium fusisporium Tiche Mill.
22. Gymnosporangium sabinae Wint.
23. Gymnosporangium turkestanicum Tranz.
24. Marsonia juglandis Mag.
25. Melampsora allii Kleb.
26. Melampsora salicina Lev.
27. Microsphaera alphitoides Griff. et Maubl.
28. Microsphaera berberidis Lev.
29. Monilia pistaciae Zapr.
30. Phyllactinia suffulta Sacc. f. juglans Jacz.
31. Phyllactinia suffulta Sacc. f. pistaciae
32. Piggotia astroidea Berk. et Br.
33. Podosphaera oxyacanthae De Bary f. cydoniae
34. Polyporus hispidus Fr.
35. Polyporus squamosus Fs.
36. Polyporus sulphureus Fr.
37. Polystigmina ochraceum Sacc.
38. Polystigmina rubra Sacc.
39. Puccinia graminis Pers.
40. Puccinia longirostris Kam.
41. Puccinia pruni spinosae Pers.
42. Rhytisma acerinum (Pers.) Fr.
43. Rhytisma salicinum Fr.
44. Rosellinia quercina Hart.
45. Septoria acerella Sacc.
46. Septoria berberidis Niessl.

47. Septoria fraxini Desm.
48. Septoria pistaciae Desm.
49. Sphaerotheca pannosa Lev.
50. Taphrina aurea Fr.
51. Trametes heteroforma (Fr.) Gloud.
52. Uncinula salicis D.C.
53. Uncinula salicis Wint.

9 Table T9 – Diversity of tree species

9.1 FRA 2005 Categories and definitions

Category	Definition
Number of native tree species	The total number of native tree species that have been identified within the country.
Number of critically endangered tree species	The number of native tree species that are classified as "Critically endangered" in the IUCN red list.
Number of endangered tree species	The number of native tree species that are classified as "Endangered" in the IUCN red list.
Number of vulnerable tree species	The number of native tree species that are classified as "Vulnerable" in the IUCN red list.

9.2 National data

9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable (s)	Year(s)	Additional comments
IUNC Red List	H	Vulnerable tree species	2004	
Red Data Book of the Republic of Uzbekistan Rare and endangered species of plants and animals. Volume 1: Plants. Tashkent, 1998, "Chinor ENK"	H			

9.3 Data for National reporting table T9

FRA 2005 Categories	Number of species (2004)
Native tree species	75
Critically endangered tree species	0
Endangered tree species	0
Vulnerable tree species	1

The Vulnerable tree specie according to IUCN is *Malus sieversii.*

9.4 Comments to National reporting table T9

The Red Data Book of the Republic of Uzbekistan lists the following:

Classification and definitions

National class	Definition
Apparently disappeared species	These are the species that have not been met for several years but they are likely to exist in some inaccessible places or within the culture
Disappearing species	The species that are on the verge of becoming extinct and their further existence is impossible without special measures of protection.
Rare species	The species that are not under direct menace of disappearance but being in such a small amount or such limited territories or specific places of dwelling that they can disappear very soon. Careful observations are required.
Reducing species	Species, the amount and areal of which are being decreased for a definite time due to natural reasons or because of man's interference or due to both mentioned reasons. Regular estimation of their state is necessary.

***Source*:** Red Data Book of the Republic of Uzbekistan
Rare and endangered species of plants and animals.
Volume 1: Plants.
Tashkent, 1998, "Chinor ENK"

Original data

National class	Number of species (year 1998)	Names of the species
Apparently disappeared species	1	Pyrus asia-mediae (M. Pop) Mallev.
Disappearing species	1	Platycladus orientalis (L.) Franco
Rare species	2	Diospyros Lotus L.; Ficus carica L.
Reducing species	3	Zuzuphus jujuba Mill.; Platanus orientalis L.; Phus coriaria L.

10 Table T10 – Growing stock composition

10.1 FRA 2005 Categories and definitions

List of species names (scientific and common names) of the ten most common species.

10.2 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Forest tree species	1990, 2000	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

10.2 Data for National reporting table T10

FRA 2005 Categories / Species name (Scientific name and common name)	Growing Stock in Forests (million cubic meters)	
	1990	2000
Henopodiaceae (Haloxylon spp.)	3.8	11.51
Cuppressaceae (Juniperus spp.)	4.2	4.2
Populus diversifolia	0.7	0.7
Other Populus spp. (Populus alba, P. pyramidalis, P. nigra, P. bolleana, P. bachofenii, P. Uzbekistanica and others and their hybrids)	0.085	0.085
Ulmaceae (Ulmus spp.)	0.059	0.069
Aceracea (Acer spp.)	0.049	0.058
Leguminosa (Acacia spp.)	0.053	0.055
Salicaceae (Salix spp.)	0.051	0.184
Fraxinus spp.	0.033	0.040
Betulacea (Betula spp.)	0.025	0.025
Remainder of species	1.305	1.604
TOTAL	**10.36**	**18.53**

10.3 Comments to National reporting table T10

For obtaining the data for this part Form 2 – Distribution of the forests as to dominating species was used.

11 Table T11 – Wood removal

11.1 FRA 2005 Categories and definitions

Category	Definition
Industrial wood removal	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removal	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
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Round wood, woodfuel	1990, 2000, 2004	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

11.2.2 Classification and definitions

No definitions are required.

11.2.3 Original data

National Classes	Volume in 1000 cubic meters of roundwood over bark		
	Forest and other wooded land		
	1990	2000	2004
Industrial roundwood	3.3	5.0	8.2
Woodfuel	45.6	24.3	21.7
TOTAL for the Country	**48.9**	**29.3**	**29.9**

11.3 Analysis and processing of national data

11.3.1 Estimation and forecasting

As the national data from the annual reporting were used for this table, only forecasting for 2005 was required. It was possible to extrapolate and forecast the data for 2005 using data for 2000 and 2004.

National Classes	Volume in 1000 cubic meters of roundwood over bark		
	National Data		Forecasted Data
	2000	2004	2005
Industrial roundwood	5,0	8.2	9.0
Woodfuel	24,3	21.7	21.0
TOTAL	**29,3**	**29.9**	**30.0**

11.4 Reclassification into FRA 2005 classes

As National Classes and FRA 2005 Categories are the same, no reclassification is required.

11.5 Data for National reporting table T11

FRA 2005 Categories	Volume in 1000 cubic meters of roundwood over bark					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Industrial roundwood	3.3	5.0	9.0	N/A	N/A	N/A
Woodfuel	45.6	24.3	21.0	N/A	N/A	N/A
TOTAL for the Country	**48,9**	**29,3**	**30.0**	**N/A**	**N/A**	**N/A**

11.6 Comments to National reporting table T11

During Soviet period in conditions of planned economy there was not need in wood removal in the country, as wood material was obtained from the other parts of Russian Federation. The forests in Uzbekistan are of great value due to their protection functions and any logging in the natural forests for industrial purposes are prohibited, excluding the production plantations. In the forests only sanitary cuttings and thinning are allowed.

In 1994 the Government of the country issued the Decree about creation of production plantations to meet partly the need of the country in the industrial timber.

The decrease of the woodfuel cutting can be explained by continuous gasification of the country, having its own source of the natural gas.

12 Table T12 – Value of wood removal

12.1 FRA 2005 Categories and definitions

Category	Definition
Value of industrial wood removal	Value of the wood removed for production of goods and services other than energy production (woodfuel).
Value of woodfuel removal	Value of the wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

12.2 National data

12.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Value of wood removal	1990, 2000, 2004	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

12.2.2 Classification and definitions

No definitions are available.

12.2.3 Original data

National Classes	Value of roundwood removal (1000 USD)		
	Forest and other wooded land		
	1990	2000	2004
Industrial roundwood	30.5	79.6	184.8
Woodfuel	5.6	17.7	49.3
TOTAL	**36.1**	**97.3**	**234.1**

12.3 Analysis and processing of national data

12.3.1 Estimation and forecasting

As the national data from the annual reporting were used for this table, only forecasting for 2005 was required. It was possible to extrapolate and forecast the data for 2005 using data for 2000 and 2004.

National Classes	Value of roundwood removal (1000 USD)		
	National Data		Forecasted Data
	2000	2004	2005
Industrial roundwood	79.6	184.8	211.1
Woodfuel	17.7	49.3	57.2
TOTAL	**97.3**	**234.1**	**268.3**

12.4 Reclassification into FRA 2005 classes

No reclassification is required.

12.5 Data for National reporting table T12

FRA 2005 Categories	Value of roundwood removal (1000 USD)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Industrial roundwood	30.5	79.6	211.1	N/A	N/A	N/A
Woodfuel	5.6	17.7	57.2	N/A	N/A	N/A
TOTAL for Country	**36.1**	**97.3**	**268.3**	**N/A**	**N/A**	**N/A**

12.6 Comments to National reporting table T12

The increase of the value of wood removal can be explained by currency inflation.

13 Table T13 – Non-wood forest product removal

13.1 FRA 2005 Categories and definitions

The following categories of non-wood forest products have been defined:

Category
Plant products / raw material
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
Animal products / raw material
9. Living animals
10. Hides, skins and trophies
11. Wild honey and bee-wax
12. Bush meat
13. Raw material for medicine
14. Raw material for colorants
15. Other edible animal products
16. Other non-edible animal products

13.2 National data

13.2.1 Data sources

References to sources of information	**Quality (H/M/L)**	**Variable(s)**	**Year(s)**	**Additional comments**
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Non-wood products	1990, 2000	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

13.2.2 Classification and definitions

No definitions are available.

13.2.3 Original data

National class	**NWFP removal, Ton**		
	1990	**2000**	**2004**
Plant products / raw material:			
Food (almond, walnut, pistachio, fruits)	N/A	3822.8	4484.6
Fodder	N/A	8957.0	10591.4
Medicinal plants	248.0	292.0	250.4
Aromatic plants	142.0	45.0	45.0
Raw material for colorants and dyes	N/A	55.0	55.0

National class	NWFP removal			
		1990	2000	2004
Animal products / raw material:				
Trophies, pcs		82	508	154
Hides, pcs		1000	1000	1000
Skins, pcs		1900	2090	1700
Honey and bee-wax, tons		1.83	0.22	0.40
Bush meat, tons		5.25	2.32	2.14
Fish, tons		4.2	16.9	6.0
Wool, tons		0.17	0.229	0.153

13.3 Analysis and processing of national data

13.3.1 Estimation and forecasting

National class	NWFP removal, Ton		
	2000	2004	Forecasted data for 2005
Plant products / raw material:			
Food (almond, walnut, pistachio, fruits)	3822.8	4484.6	4650.0
Fodder	8957.0	10591.4	11000.0
Medicinal plants	292.0	250.4	240.0
Aromatic plants	142.0	45.0	45.0
Raw material for colorants and dyes	55.0	55.0	55.0

The 2004 data for animal products is used for reporting year 2005.

13.4 Reclassification into FRA 2005 classes

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National Class	Percentage a National class that falls in a FRA class of NWFP															
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Plant products / raw material:																
Food (almond, walnut, pistachio, fruits)	100															
Fodder		100														
Medicinal plants			100													
Aromatic plants			100													
Raw material for colorants and dyes				100												
Animal products / raw material:																
Trophies										100						
Hides										100						
Skins										100						
Honey and bee-wax											100					
Bush meat												100				
Wool																100

Fish is not included.

13.5 Data for National reporting table T13

FRA 2005 Categories	Scale factor	Unit	NWFP removal		
			1990	2000	2005
Plant products / raw material					
1. Food		T	NDA	3823	4650
2. Fodder		T	NDA	8957	11000
3. Raw material for medicine and aromatic products		T	390	337	285
4. Raw material for colorants and dyes		T	55	55	55
5. Raw material for utensils, handicrafts & construction			NDA	NDA	NDA
6. Ornamental plants			NDA	NDA	NDA
7. Exudates			NDA	NDA	NDA
8. Other plant products			NDA	NDA	NDA
Animal products / raw material					
9. Living animals					
10. Hides, skins and trophies		Pc	2982	3598	2854
11. Wild honey and bee-wax		T	1.8	0.2	0.4
12. Bush meat		T	5.3	2.3	2.1
13. Raw material for medicine			NDA	NDA	NDA
14. Raw material for colorants			NDA	NDA	NDA
15. Other edible animal products			NDA	NDA	NDA
16. Other non-edible animal products		T	0.2	0.2	0.2

13.6 Comments to National reporting table T13

14 Table T14 – Value of non-wood forest product removal

14.1 FRA 2005 Categories and definitions

The following categories of non-wood forest products have been defined:

Category
Plant products / raw material
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
Animal products / raw material
9. Living animals
10. Hides, skins and trophies
11. Wild honey and bee-wax
12. Bush meat
13. Raw material for medicine
14. Raw material for colorants
15. Other edible animal products
16. Other non-edible animal products

14.2 National data

14.2.1 Data sources

References to sources of information	**Quality (H/M/L)**	**Variable(s)**	**Year(s)**	**Additional comments**
Annual report of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU *	M	Non-wood products value	1990, 2000, 2004	

* For assessment the reporting data corrected annually in accordance with the reports submitted by accountable units (forestry enterprises) were used.

14.2.2 Classification and definitions

No definitions are available.

14.2.3 Original data

National class	**NWFP Value, 1000 USD**		
	1990	**2000**	**2004**
Plant products / raw material:			
Food (almond, walnut, pistachio, fruits)	NDA	NDA	NDA
Fodder	NDA	NDA	NDA
Medicinal plants	NDA	49.60	27.02
Aromatic plants	NDA	1.80	0.94
Raw material for colorants and dyes	NDA	2.22	1.29

National class	**NWFP value, 1000 USD**		
	1990	**2000**	**2004**
Animal products / raw material:			
Trophies	NDA	NDA	13.84

Hides	NDA	NDA	3.46
Skins	NDA	NDA	NDA
Honey and bee-wax	NDA	NDA	NDA
Bush meat	NDA	NDA	21.13
Fish	NDA	NDA	12.31
Wool	NDA	NDA	NDA

14.3 Analysis and processing of national data

14.3.1 Estimation and forecasting

Forecasting could be applied to estimate NWFP value only for three categories, given below due to absence of available data.

National class	NWFP Value, 1000 USD		
	2000	2004	Forecasted data for 2005
Plant products / raw material:			
Medicinal plants	49.60	27.02	21.34
Aromatic plants	1.80	0.94	0.72
Raw material for colorants and dyes	2.22	1.29	1.05

14.4 Reclassification into FRA 2005 classes

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National Class	Percentage of a National Class belonging to a FRA 2005 Class (Value of NWFP Removal)
NWFP value	100

14.5 Data for National reporting table T14

FRA 2005 Categories	Value of the of NWFP removed (1000 USD)		
	1990	2000	2005
Plant products / raw material			
1. Food	NDA	NDA	NDA
2. Fodder	NDA	NDA	NDA
3. Raw material for medicine and aromatic products	NDA	54.4	22.06
4. Raw material for colorants and dyes	NDA	2.22	1.05
5. Raw material for utensils, handicrafts & construction	NDA	NDA	NDA
6. Ornamental plants	NDA	NDA	NDA
7. Exudates	NDA	NDA	NDA
8. Other plant products	NDA	NDA	NDA
Animal products / raw material			
9. Living animals	NDA	NDA	NDA
10. Hides, skins and trophies	NDA	NDA	17.3
11. Wild honey and bee-wax	NDA	NDA	NDA
12. Bush meat	NDA	NDA	21.13
13. Raw material for medicine	NDA	NDA	NDA
14. Raw material for colorants	NDA	NDA	NDA
15. Other edible animal products	NDA	NDA	12.31
16. Other non-edible animal products	NDA	NDA	NDA
TOTAL	**NDA***	**56.62***	**73.85***

**The total value does not correspond to the total table in T13*

15 Table T15 – Employment in forestry

15.1 FRA 2005 Categories and definitions

Category	Definition
Primary production of goods	Employment in activities related to primary production of goods, like industrial roundwood, woodfuel and non-wood forest products.
Provision of services	Employment in activities directly related to services from forests and woodlands.
Unspecified forestry activities	Employment in unspecified forestry activities.

15.2 National data

15.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Statistical Report 1-T of the Main Forestry Department under the Ministry of Agriculture and Water Resources of the RU	M		1990, 2000	

15.2.2 Classification and definitions

15.2.3 Original data

National classes	Employment (1000 person-years)	
	1990	2000
Forestry sector staff	5.082	6.639
TOTAL	**5.082**	**6.639**

15.3 Analysis and processing of national data

15.3.1 Estimation and forecasting

No forecasting was possible.

15.4 Reclassification into FRA 2005 classes

Table: Reclassification (Percentage allocation) into FRA 2005 classes

National Class	Percentage of a National Class belonging to a FRA Class		
	Primary production of goods	Provision of services	Unspecified forestry activities
Forestry sector staff	100		

15.5 Data for National reporting table T15

FRA 2005 Categories	Employment (1000 person-years)	
	1990	2000
Primary production of goods	5.1	6.6
Provision of services	0	0
Unspecified forestry activities	0	0
TOTAL	**5.1**	**6.6**