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Food and Agriculture Organization of the United Nations

**GLOBAL FOREST RESOURCES
ASSESSMENT**

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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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The Global Forest Resources Assessment 2005 Country Report Series is designed to document and make available the information forming the basis for the FRA 2005 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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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 <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
National Action Programme To Combat Desertification (NAP) 2000: The Gambia . United Nations Convention to Combat Desertification (UNCCD). The government of The Gambia	M	Forest Cover	1982/1983 1993/1994	
Sillah J.S 1999, Forest resources and plantations of the Gambia. EC-FAO Partnership Programme (1998-2002)	H	Classification	1982/1983	

1.2.2 Classification and definitions

National class	Definition
I Closed woodland	with more than 60% crown cover
II Savannah woodland	with crown cover of 20 to 60%
III Tree and shrub savannah	with crown cover of 2 to 20%
IV Agriculture	with more than 10% trees
V Agriculture	with less than 10% trees
VI Fallow land	No definition
VII Mangroves	No definition
VIII Others	No definition

1.2.3 Original data

Land Use Category	1982	%	1993	%	Change	
	Area in ha		Area in ha			
Woodland	14 400	1.3	12 000	1.1	-2,400	-0.2
Savanna woodland	121 600	10.7	88 800	7.8	-32,800	-2.9
Tree and shrub savannah	280 400	24.8	360 800	31.9	80,400	7.1
Agriculture with trees	84 000	7.4	85 200	7.5	1,200	0.1
Agriculture no trees	226 400	20	241 200	21.3	14,800	1.3
Fallow area	138 800	12.3	89 200	7.9	-49,600	-4.4
Mangroves	68 000	6	59 600	5.3	-8,400	-0.7
Others	198 800	17.6	195 600	17.3	-3,200	-0.3
Total	1 132 400	100	1 132 400	100	0	0

1.3 Analysis and processing of national data

1.3.1 Calibration

Country Area	1 132 400
FAO Stats	1 130 000
Calibration Factor	0.997880608

Land use category	Calibrated Area in ha	
	1982	1993
Woodland	14 369	11 975
Savanna woodland	121 342	88 612
Tree and shrub savannah	279 806	360 035
Agriculture with trees	83 822	85 019
Agriculture no trees	225 920	240 689
Fallow area	138 506	89 011
Mangroves	67 856	59 474
Others	198 379	195 185
Total	1 130 000	1 130 000

1.4 Reclassification into FRA 2005 classes

Land use category	Forest	OWL	OL	OLWTC
Woodland	100%			
Savanna woodland	100%			
Tree and shrub savannah (1)	80%	20%		
Agriculture with trees				100%
Agriculture no trees			100%	
Fallow area (1)		100%		
Mangroves	100%			
Others			100%	
Total				

Notes:

1.As in FRA 2000

Results after reclassifying the 1993 data

Land use category	Area in hectares			
	Forests	OWL	OL	OLWTC
Woodland	11 975	0	0	0
Savanna woodland	88 612	0	0	0
Tree and shrub Savanna	288 028	72 007	0	0
Agriculture with trees	0	0	0	85 019
Agriculture no trees	0	0	240 689	0
Fallow area	0	89 011	0	0
Mangroves	59 474	0	0	0
Others	0	0	195 185	0
Total	448088	161018	435874	85019

FRA 2005	Area in hectares	
	1982	1993
Forests	427 412	448 088
OWL	194 467	161 018
OL	508 121	520 894
Total	1 130 000	1 130 000

1.4.1 Estimation and forecasting

FRA 2005 Categories	Area in hectares		
	1990	2000	2005
Forests	442 449	461 246	470 644
OWL	170 140	139 732	124 528
OL	517 410	529 022	534 828
Total	1 130 000	1 130 000	1 130 000

1.5 Data for National reporting table T1

FRA 2005 Categories	Area (1000 hectares)		
	1990	2000	2005
Forest	442	461	471
Other wooded land	170	140	125
Other land	517	529	535
...of which with tree cover ¹⁾			
Inland water bodies			
TOTAL	1 130	1 130	1 130

- 1) Area of “Other land with tree cover” is included in the area reported under “Other land” and should therefore be excluded when calculating the total area for the country.

1.6 Comments to National reporting table T1

Notes: From source 1

1. The total area under forests increased. This is due to a reversion of former agricultural land (mainly marginal fallow land) into tree and shrub savannah. All divisions, with exception of North Bank Division (NBD), register an increase in tree and shrub savannah. The process is most pronounced in Lower River Division (LRD)
2. Closed and open woodland was reduced by 3.1% per year due to forest degradation and conversion into agricultural land. Most severe degradation can be observed in LRD and Upper River Division (URD)
3. Mangroves suffered a slight but nevertheless alarming decrease in total surface are, the causes are die-backs due to disturbed water exchange, illegal exploitation and conversion of tidal areas into shrimp and fish farms
4. The fallow areas have decrease by almost 50 000 ha or 4.4% due to conversion into tree and shrub savannah, agriculture with no trees or to a lesser extent into agriculture with trees
5. Agriculture with trees remained relatively unchanged and agriculture with no trees increased by 1.3% per year.

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
Sillah J.S 1999: Forest resources and plantations of the Gambia. Data Collection and Analysis for Sustainable Forest Management in ACP Countries - Linking National and International Efforts. EC-FAO Partnership Programme (1998-2002)	H	Ownership		

2.2.2 Classification and definitions

National class	Definition
Private Forest	Private Forest are forests naturally growing or planted on Lands privately owned and or leased in accordance with the relevant land legislation and which is managed by an individual or group of individuals.
Community Forests	There are forests designated as specified in section 69 of the Gambia Forest Act and which are owned and managed by the designated communities for the purpose of timber firewood, and non wood forest produce production, forest grazing, protection and conservation.
Public Forests	Includes all forest except community and private forests. Public forests are owned and administered by the state.

Note: If different national data sources use different classes and definitions, a table such as above is needed for each relevant data source.

2.2.3 Original data

The new forest legislation distinguishes four broad forest categories: state forests, community forests, private forests, and national parks/nature reserves. The latter category is administered and managed by the Department of Parks and Wildlife.

Forest type categories	Total area	Area %	Description
Forest parks	32,729	6.50%	Forest reserves managed by Forestry Department
Community forests	17,387	3.30%	Forest managed by designated communities
Private Forests	100	0.09%	Forest growing or planted on privately owned lands
Protection forests	-		Forest managed for the main purpose of maintaining or improving the local environment
Protected forests	74,00	14.40%	All mangroves and riverine forests managed by Forestry Department
State forests	388284	75.70%	All other remaining forest under the control of Forestry Department except if they exist in National parks or in nature reserves
Total	512,500	99.99%	

Source: Based on Danso 1998

2.3 Analysis and processing of national data

2.4 Reclassification into FRA 2005 classes

2.5 Data for National reporting table T2

FRA 2005 Categories	Area (1000 hectares)			
	Forest		Other wooded land	
	1990	2000	1990	2000
Private ownership	0.100	0.100		
Public ownership	442	461	170	140
Other ownership				
TOTAL	442	461	170	140

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 Original data

No original data. T1 used as input.

3.3 Analysis and processing of national data

3.4 Reclassification into FRA 2005 classes

The Gambia is a low forest cover country, therefore the management of all forest types falls under multiple purpose as dictated by our National Forest Policy document.

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						
Protection of soil and water						
Conservation of biodiversity						
Social services						
Multiple purpose	442	461	471	not appl.	not appl.	not appl.
No or unknown function				not appl.	not appl.	not appl.
Total - Forest	442	461	471	not appl.	not appl.	not appl.
Other wooded land						
Production						
Protection of soil and water						
Conservation of biodiversity						
Social services						
Multiple purpose	170	140	125	not appl.	not appl.	not appl.
No or unknown function				not appl.	not appl.	not appl.
Total – Other wooded land	170	140	125	not appl.	not appl.	not appl.

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
Nation Action plan	H	Estimates for plantations	2000	

4.2.2 Classification and definitions

4.2.3 Original data

Almost all forest types in The Gambia are modified by annual bush fires and exploitation by man. Grazing in most forest areas also modified some forest.

4.3 Analysis and processing of national data

4.4 Reclassification into FRA 2005 classes

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						
Modified natural	442	461	471	170	140	125
Semi-natural						
Productive plantation	0.3	0.3	0.3			
Protective plantation						
TOTAL	442	461	471	170	140	125

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
Forest resources and plantations of the Gambia. Data Collection and Analysis for Sustainable Forest Management in ACP Countries - Linking National and International Efforts. EC-FAO Partnership Programme (1998-2002)	H	Vol/ha for Forests and OWL	1993	

5.2.2 Classification and definitions

5.2.3 Original data

Vol/ha is original data from the above source. Area in hectares is from T1

FRA 2005	Vol/ha	Area in hectares		
		1990	2000	2005
Forest	37.4	442 449	461 244	4710 644
OWL	19.6	170 140	139 732	124 528

5.3 Analysis and processing of national data

5.4 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	16.55	17.25	17.60	3.33	2.74	2.44
Commercial growing stock						

Specification of country threshold values	Unit	Value	Complementary information
1. Minimum diameter at breast height of trees included in Growing stock (X)	cm		
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		

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 Original data

No original data exists. T5 will be used as an input.

FRA 2005 Categories	Volume (million cubic meters over bark)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Growing stock	16.55	17.25	17.60	3.33	2.74	2.44

6.3 Analysis and processing of national data

The following conversion factors were used:

FRA 2005 Categories	Density	Stem wood	BEF	R/S ratio	D/L ratio
	ton/m ³	ton/ha			
Forest	0.58	21.7	5.2	0.24	0.14
OWL	0.58	11.4	7.3	0.48	0.14

1. BEF calculated using formula from FAO Forestry Paper 134
2. Wood density: Average for Africa (FAO Forestry Paper 134)
3. R/S ratio: Appendix 5 of Guidelines
4. D/L ratio: Appendix 5 of Guidelines

6.3.1 Estimation and forecasting

Applying conversion factors to growing stock from T5 gives:

Forest	Biomass in tonnes		
	1990	2000	2005
Aboveground biomass	50 278 667	52 414 641	53 482 627
Belowground biomass	12 066 880	12 579 514	12 835 831
Living biomass	62 345 547	64 994 154	66 318 458
Dead wood biomass	8 728 377	9 099 182	9 284 584
Total	71 073 924	74 093 336	75 603 042

OWL	Biomass in tonnes		
	1990	2000	2005
Aboveground biomass	14 050 885.5	11 539 658	10 284 044
Belowground biomass	6 744 425.1	5 539 036	4 936 342
Living biomass	20 795 310.6	17 078 694	15 220 386
Dead wood biomass	2 911 343.5	2 391 017	2130854.1
Total	23 706 654	19 469 712	17 351 240

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	50.28	52.41	53.48	14.05	11.54	10.28
Below-ground biomass	12.07	12.58	12.84	6.74	5.54	4.94
Dead wood biomass	8.73	9.10	9.28	2.91	2.39	2.13
TOTAL	71.074	74.09	75.60	23.71	19.47	17.35

Thresholds used by the country are the following:

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, fomic, 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

7.2.1 Data sources

7.2.2 Original data

No original data exists. T6 is used as input and a carbon content of 50%.

7.3 Analysis and processing of national data

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	25.14	26.21	26.74	7.03	5.77	5.14
Carbon in below-ground biomass	6.03	6.29	6.42	3.37	2.77	2.47
Sub-total: Carbon in living biomass	31.17	32.50	33.16	10.40	8.54	7.61
Carbon in dead wood	4.36	4.55	4.64	1.5	1.20	1.07
Carbon in litter						
Sub-total: Carbon in dead wood and litter						
Soil carbon to a depth of _____ cm						
TOTAL CARBON	35.53	37.05	37.80	11.85	9.73	8.68

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
National Action Plan	M	Disturbance by fire and disturbance by diseases	1990 2000	

8.2.2 Classification and definitions

8.2.3 Original data

FRA-2005 Categories	Average annual area affected (1000 hectares)			
	Forest		Other wooded land	
	1990	2000	1990	2000
Disturbance by fire	143.5	149.6		2.5
Disturbance by insects				
Disturbance by diseases	179.4	99.7		33.4

8.3 Analysis and processing of national data

8.4 Reclassification into FRA 2005 classes

8.5 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	143.5	149.6		
Disturbance by insects				
Disturbance by diseases	179.4	99.7		
Other disturbance				

8.6 Comments to National reporting table T8

Up to 1990s almost 86% of our forests are burnt annually. The severity depends on the moisture content of the vegetation and weather conditions. This trend started to decline for better as a result of the participatory approach to forest management e.g. CF and JFPM schemes so that by year 2000 annually bush fires were reduced significantly. However fire is still the most important factor. The same is true for illegal exploitation of our forest resources so that by year 2004 both the private and public forest are protected against illegal exploitation by the population.

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
www.iucn.org	H	CR, EN and VU species	2000	
Expert opinion	M	CR, EN and VU species	2000	

9.2.2 Classification and definitions

9.2.3 Original data

FRA 2005 Categories	Number of species (year 2000)
Native tree species	140
Critically endangered tree species	10
Endangered tree species	5
Vulnerable tree species	20

Notes: 1. National list

2. The IUCN Red List does not list any tree species as CR, EN or VU

9.3 Data for National reporting table T9

FRA 2005 Categories	Number of species (year 2000)
Native tree species	140
Critically endangered tree species	0
Endangered tree species	0
Vulnerable tree species	0

9.4 Comments to National reporting table T9

140 different tree and shrubs species are identified in The Gambia which are used in some way by the local population. This is probably a sub estimation of the total number of tree species in the country.

The IUCN Red List does not list any tree species as endangered or vulnerable for Gambia. However, the national list contains 10 critically endangered trees species, 5 endangered and 20 vulnerable tree species.

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 National data

10.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Teusan S, 1999 Monitoring of land use Change in The Gambia between 1908 and 1993, URDFP	H	vol/ha by species	1999	

10.2.2 Original data

10.3 Analysis and processing of national data

10.4 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
<i>Terminalia macroptera</i>		4.35
<i>Daniella oliveri</i>		1.96
<i>Combretum glutinosum</i>		1.25
<i>Khaya senegalensis</i>		1.19
<i>Parkia biglobosa</i>		1.18
<i>Elaeis guinness</i>		1.16
<i>Combretum nigrans</i>		0.83
<i>Pterocarpus erinaceus</i>		0.39
<i>Cordyla africana</i>		0.00
Other species		4.94
TOTAL		17.25

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
FAO year book	L	Wood fuel Fuel wood	1990 2000	

11.2.2 Classification and definitions

11.2.3 Original data

	Roundwood Removal (under bark)in cubic meters	
	Industrial	Wood Fuel
1988	46 600	416 569
1989	56 600	432 623
1990	66 600	454 133
1991	81 600	467 683
1992	96 600	498 014
Avg 1990	69 600	453 804.4
1998	112 700	500 000
1999	112 700	505 000
2000	112 700	602 682
2001	112 700	611 239
2002	112 700	619 975
Avg 2000	112700	567779.2

1.15 conversion factor was used to convert average 1990 and 2000 to over bark to give:

FRA 2005 Categories	Roundwood Removal (under bark)in cubic meters		
	1990	2000	2005
Industrial Roundwood	80 040	129 605	154 388
Wood Fuel	521 875	652 946	718 482
Total	601 915	782 551	872 869

11.3 Analysis and processing of national data

11.4 Reclassification into FRA 2005 classes**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	80 040	129 605	154 388			
Woodfuel	521 875	652 946	718 482			
TOTAL for Country	601 915	782 551	872 869			

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

12.2.2 Original data

No data is available

12.3 Analysis and processing of national data

12.4 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	ID	ID	ID	ID	ID	ID
Woodfuel	ID	ID	ID	ID	ID	ID
TOTAL for Country	ID	ID	ID	ID	ID	ID

13 Table T13 – Non-wood forest product removal

13.1 FRA 2005 Categories and definitions

13.2 National data

13.2.1 Original data

No data is available

13.3 Analysis and processing of national data

13.4 Data for 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:

14.2 National data

14.2.1 Data sources

14.2.2 Original data

No data is available for this table

14.3 Analysis and processing of national data

14.4 Reclassification into FRA 2005 classes

14.5 Data for National reporting table T14

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
Trends and current status of the contribution of the forest sector to national economies”(FAO, 2003)	L	Employment in primary production of goods	1990 and 2000	

15.2.2 Classification and definitions

15.2.3 Original data

No original national data was available for this table

15.3 Analysis and processing of national data

15.3.1 Estimation and forecasting

15.4 Reclassification into FRA 2005 classes

15.5 Data for National reporting table T15

FRA 2005 Categories	Employment (1000 person-years)	
	1990	2000
Primary production of goods	0.127	0.215
Provision of services		
Unspecified forestry activities		
TOTAL	0.127	0.215

15.6 Comments to National reporting table T15

16 Thematic reporting tables

If countries would like to submit additional reporting tables, these should be included here.
(See the chapter on thematic reporting in the Guidelines for Country Reporting).