



**Forestry Department**

**Food and Agriculture Organization of the United Nations**

**GLOBAL FOREST RESOURCES  
ASSESSMENT 2010**

**COUNTRY REPORT**

**NIGERIA**

FRA2010/151

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## The Forest Resources Assessment Programme

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

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

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

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

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## Introduction

Nigeria is well endowed with forest resources, accounting for about 2.5 percent of the Gross Domestic Products. These resources provide employment for over 2 million people through supply of fuel wood and poles and more than 80 000 people working in the log processing industries, especially in the forest zones of the south.

The resources abound in the High Forests, woodlands, bush lands, plantations and trees on farmlands. The forests occupy about 10 million hectares representing almost 10 percent of the total land area of 92 377 hectares. This total is made up of about 445 gazetted Reserves, distributed over the five main ecological zones of Fresh water/mangrove, the lowland rainforest, the derived savanna and the sahel/sudan savanna. More than 5 percent of the total land area is devoted to wildlife conservation also distributed across the major ecological zones.

The forests provide a wide range of non-wood products and environmental functions, though not adequately quantified and are under-estimated in national accounting. These products include bush meat, medicine, watershed protection, stabilisation of the hydrological regimes and carbon sequestration.

The forest estates from which wood and other products are obtained have been subjected to severe encroachments, vegetation degradation and dereservation for agriculture, industrial development, urbanisation etc.

The available information on the forests is either obsolete or based on extrapolation from very old data. Nigeria falls short of the basic standard of acquiring regular and up to date data on the forest resources. With the last national forest inventory dating back to 1997, most of the information documented may not properly reflect the actual situation but merely indicative.

# 1 Table T1 – Extent of Forest and Other wooded land

## 1.1 FRA 2010 Categories and definitions

Category	Definition
Forest	Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds <i>in situ</i> . It does not include land that is predominantly under agricultural or urban land use.
Other wooded land	Land not classified as “Forest”, spanning more than 0.5 hectares; with trees higher than 5 meters and a canopy cover of 5-10 percent, or trees able to reach these thresholds <i>in situ</i> ; or with a combined cover of shrubs, bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.
Other land	All land that is not classified as “Forest” or “Other wooded land”.
Other land with tree cover (Subordinated to “Other land”)	Land classified as “Other land”, spanning more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.

## 1.2 National data

### 1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Olufemi A. Olaleye and Ameh, C. E. 1999. Forest Resource Situation Assessment of Nigeria EC-FAO PARTNERSHIP PROGRAMME (1998-2002);Tropical forestry Budget line B7-6201/97-15/VIII/FOR,Abuja, Nigeria	M	Forest cover	1977 1994	

### 1.2.2 Classification and definitions

National class	Definition
Intensive (crop) Agriculture	No definition
Extensive (grazing) Agriculture	No definition
Dominantly Shrub/Grasses	Comprise mixed combretaceous wood/and typical of Sudan savanna
Dominantly Trees/Woodlands/Shrubs	Savanna woodland where trees and shrubs form a fairly closed canopy.
Flood plain Agriculture	No definition
Disturbed Forest	Characterized by areas of native forest as in above class but consists of open

	canopies that are a result of human disturbance.
Gullies	No definition
Forested Freshwater Swamp	No definition
Undisturbed Forest	High forest consisting of ever green hydrophytic plants of great species diversity characteristically stratified into three layers where the emergent layer (trees of 40-60m) high comprise tall trees that do not necessarily form continuous canopy.
Dominantly Grasses	No definition
Discontinuous Grassland	No definition
Mangrove Forest	This occurs on the muddy banks of creeks and in tidal channels in the upper portion of the zone of saturator influence where the water is brackish.
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp	No definition
Extensive Agriculture with Denuded Areas	No definition
Grassland	No definition
Natural Waterbodies	No definition
Montane Forest	Also known as " Mist Forest" is commonly found on high attitudes of above 1000m characterized by broken canopies associated with massive profusions of various kinds of epiphytes
Urban (major+minor)	No definition
Riparian Forest	Characterized by its location adjacent to water course and its dense closed canopy.
Sand Dunes	No definition
Montane Grassland	No definition
Reservoir	No definition
Rock Outcrop	No definition
Agricultural Tree Crop Plantation	No definition
Forest Plantation	Artificial forest plantation of the both exotic and indigenous species such as teak and Gmelina which are massive.
Teak/Gmelina Plantation	No definition
Irrigation Project	No definition
Graminoid/Sedge Freshwater Marsh	No definition
Saltmarsh.Tidal Flat	No definition
Rainfed Arable Crops	No definition
Alluvial	No definition
Livestock Project	No definition
Mining Areas	No definition
Canal	

### 1.2.3 Original data

#### Vegetation and Land use Classes for 1977 (1976-78) and 1994 (1993-95)

National classes	1977	1994	Group
	Area(km2)	Area(km2)	
Intensive (crop) Agriculture	322 794	365 491	Other land
Extensive (grazing) Agriculture	166 326	187 236	Other land
Dominantly Shrub/Grasses	113 880	81 694	Forest / OWL
Dominantly Trees/Woodlands/Shrubs	151 293	81 386	Forest / OWL
Floodplain Agriculture	9 451	20 918	Other land
Disturbed Forest	14 573	18 990	Forest
Gullies	122	18 517	Other land
Forested Freshwater Swamp	18 316	16 499	Forest
Undisturbed Forest	25 951	12 114	Forest
Dominantly Grasses	12 549	11 983	Other land
Discontinuous Grassland	6 137	11 248	Other land
Mangrove Forest	9 994	9 977	Forest
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp	16 899	9 248	OWL/O.L
Extensive Agriculture with Denuded Areas	3 518	9 206	Other land
Grassland	1 034	7 989	Other land
Natural Waterbodies	6 591	7 851	Inland water
Montane Forest	6 762	6 759	Forest
Urban (major+minor)	2 083	5 444	Other land
Riparian Forest	7 402	5 254	Forest
Sand Dunes	812	4 829	Other land
Montane Grassland	1 739	3 112	Other land
Reservoir	1 327	2 888	Inland water
Rock Outcrop	1 424	2 632	Other land
Agricultural Tree Crop Plantation	830	1 641	Other land
Forest Plantation	997	1 573	Forest
Teak/Gmelina Plantation	628	1 156	Forest
Irrigation Project	147	988	Other land
Graminoid/Sedge Freshwater Marsh	4 882	871	Other land
Saltmarsh.Tidal Flat	4	545	Other land
Rainfed Arable Crops	16	485	Other land
Alluvial	487	269	Other land
Livestock Project	52	139	Other land
Mining Areas	0	62	Other land
Canal	2	29	Other land
Total land area	<b>909 022</b>	<b>909 023</b>	

### 1.3 Analysis and processing of national data

#### 1.3.1 Calibration

Total Country area (FAOSTAT)	92 377
Total land area (FAOSTAT)	91 077
Inland water (calculated from FAOSTAT)	1 300

	1977	1994
Calibration factor based on land area	1.010726842	1.013899836



Calibrated national data will then be as follows

	1977	1994
	1000 ha	1000 ha
Dominantly Shrub/Grasses	11 510	8 283
Dominantly Trees/Woodlands/Shrubs	15 292	8 252
Disturbed Forest	1 473	1 925
Forested Freshwater Swamp	1 851	1 673
Undisturbed Forest	2 623	1 228
Mangrove Forest	1 010	1 012
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp	1 708	938
Montane Forest	683	685
Riparian Forest	748	533
Forest Plantation	101	159
Teak/Gmelina Plantation	63	117
Agricultural Tree Crop Plantation	84	166
Other land	53 930	66 106
Inland water (from FAOSTAT)	1 300	1 300
<b>Total country area</b>	<b>92 377</b>	<b>92 377</b>

### 1.3.2 Reclassification into FRA 2010 categories

The following reclassification matrix was used in order to reclassify the national classes into FRA 2005 categories. The result of the reclassification is introduced directly in the final reporting table.

	Reclassification matrix				
	Forest	OWL	OL	OLwTC	Water
Dominantly Shrub/Grasses	34%	66%			
Dominantly Trees/Woodlands/Shrubs	66%	34%			
Disturbed Forest	100%				
Forested Freshwater Swamp	100%				
Undisturbed Forest	100%				
Mangrove Forest	100%				
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp		34%	66%		
Montane Forest	100%				
Riparian Forest	100%				
Forest Plantation	100%				
Teak/Gmelina Plantation	100%				
Agricultural Tree Crop Plantation			100%	100%	
Other land			100%		
Inland water					100%

**In 1977**

	Area 1 000 ha				
	Forest	OWL	OL	OLwTC	Water
Dominantly Shrub/Grasses	3913	7597			
Dominantly Trees/Woodlands/Shrubs	10093	5199			
Disturbed Forest	1473				
Forested Freshwater Swamp	1851				
Undisturbed Forest	2623				
Mangrove Forest	1010				
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp		581	1127		
Montane Forest	683				
Riparian Forest	748				
Forest Plantation	101				
Teak/Gmelina Plantation	63				
Agricultural Tree Crop Plantation			84	84	
Other land			53930		
Inland water					1300
Total	22558	13377	55141	84	1300

**In 1994**

	Area 1 000 ha				
	Forest	OWL	OL	OLwTC	Water
Dominantly Shrub/Grasses	2816	5467			
Dominantly Trees/Woodlands/Shrubs	5446	2806			
Disturbed Forest	1925				
Forested Freshwater Swamp	1673				
Undisturbed Forest	1228				
Mangrove Forest	1012				
Shrub/Sedge/Graminoid Freshwater Marsh/Swamp		319	619		
Montane Forest	685				
Riparian Forest	533				
Forest Plantation	159				
Teak/Gmelina Plantation	117				
Agricultural Tree Crop Plantation			166	166	
Other land			66106		
Inland water					1300
Total	15594	8592	66891	166	1300

**1.3.3 Estimation and forecasting**

Estimation and forecasting to the FRA 2010 reporting years were done based on the calibrated national data and resulted in the following table:

	1977	1994	1990	2000	2005	2010
	1000 ha	1000 ha	1000 ha	1000 ha	1000 ha	1000 ha
Forest	22 559	15 594	17 234	13 137	11 089	9 041
OWL	13 377	8 592	9 717	6 902	5 495	4 088
OL	55 141	66 891	64 126	71 038	74 493	77 948
OLw TC	84	166	147	195	220	245

#### 1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	17 234	13 137	11 089	9 041
Other wooded land	9 717	6 902	5 495	4 088
Other land	64 126	71 038	74 493	77 948
...of which with tree cover	147	195	220	245
Inland water bodies	1 300	1 300	1 300	1 300
<b>TOTAL</b>	<b>92 377</b>	<b>92 377</b>	<b>92 377</b>	<b>92 377</b>

#### 1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		Linear extrapolation adopted, based on previous surveys from 1977 and 1994, and on the assumption that the trend has remained the same.
Other wooded land		As above
Other land		As above
Other land with tree cover		As above
Inland water bodies		No change

#### Other general comments to the table

No National Forest Inventory has taken place since 1997.

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

Field inventory	n/a
Remote sensing survey / mapping	2009

## 2 Table T2 – Forest ownership and management rights

### 2.1 FRA 2010 Categories and definitions

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

## 2.2 Data for Table T2

**Table 2a - Forest ownership**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	17 234	13 137	11 089
Private ownership	0	0	0
...of which owned by individuals	0	0	0
...of which owned by private business entities and institutions	0	0	0
...of which owned by local communities	0	0	0
...of which owned by indigenous / tribal communities	0	0	0
Other types of ownership	0	0	0
<b>TOTAL</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>

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

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

**Table 2b - Holder of management rights of public forests**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration	n/a	n/a	n/a
Individuals	n/a	n/a	n/a
Private corporations and institutions	n/a	n/a	n/a
Communities	n/a	n/a	n/a
Other	n/a	n/a	n/a
<b>TOTAL</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>

## 2.3 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		
Private ownership		

Other types of ownership		
Management rights	The situation is unknown because management rights of public forest are handled differently from one state to another. Information is scanty. Previous surveys did not capture the management rights adequately.	

**Other general comments to the table**

All lands in Nigeria belong to the Government and are held in trust for the people. Individuals or private organizations occupy land only on lease for a number of years usually 99 years. Only what the occupier put on land belong to the occupier. The authority to occupy the land may be withdrawn at any time by the government with appropriate compensation paid.

### 3 Table T3 – Forest designation and management

#### 3.1 FRA 2010 Categories and definitions

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

#### 3.2 National data

##### 3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
<a href="http://www.wcmc.org">www.wcmc.org</a>	L	Protected Area		
Olufemi A. Olaleye and Ameh, C. E. 1999. Forest Resource Situation Assessment of Nigeria EC-FAO PARTNERSHIP PROGRAMME (1998-2002); Tropical forestry Budget line B7-6201/97-15/VIII/FOR, Abuja, Nigeria	M	Forest cover Plantation area	1977 1994	

ITTO, Status of Tropical Forest Management, 2005	M	Forest management		
UNEP-WCMC 2004. Spatial analysis of forests within protected areas in ITTO countries. UNEPWCMC, Cambridge, UK. Data prepared for ITTO, 2004	M	Forest management (protection)	2004	

### 3.2.2 Classification and definitions

### 3.2.3 Original data

#### Protected areas from Source 1 (2003):

Category	Area in 1 000 ha
Nature Reserves, Wilderness Areas, and National Parks (categories I and II) <sup>1)</sup>	2 509
Natural Monuments, Species Management, Areas and Protected Landscapes and Seascapes (categories III, IV and V)	745
Areas Managed for Sustainable Use and unclassified areas (categories VI and other)	2 248
<b>Total Area Protected (all categories)</b>	<b>5 502</b>

<sup>1)</sup> It is assumed that crown cover is above 10%. See High Forest timber volume under national parks and reserves. It excludes the area designated primarily for production purpose and which are included under High forest below.

#### Production Areas:

It is assumed that High Forests areas and plantation have been designated primary function of production.

a) Plantation Area from T1, calibrated national data (source 2), then extrapolated for 1990, 2000, 2005 and 2010

Category	Area in 1000 ha					
	1977	1994	1990	2000	2005	2010
Forest Plantation	101	159	146	180	197	214
Teak/Gmelina Plantation	63	117	105	136	152	168
<b>Total</b>	<b>164</b>	<b>276</b>	<b>251</b>	<b>316</b>	<b>349</b>	<b>382</b>

b) Production Areas from High Forest area by categories - Reference year: 1998

Forest Land Designation	Forest Type	Area (ha)	Gross Volume (m3)
Forest Reserve	Freshwater swamp	224 369	23 353 102
	Lowland rain	757 740	98 599 957
	Riparian	2 547	169 101
Free Area	Freshwater swamp	1 424 739	150 814 914
	Lowland rain	912 094	109 544 813
	Mangrove	5 314	443 860
Game Reserve	Riparian	80 368	4 526 678
	Lowland rain	12 365	1 633 706
National Park	Riparian	5 492	386 513
	Lowland rain	369 412	46 878 597
<b>Total</b>		<b>3 794 440</b>	



### 3.3 Analysis and processing of national data

#### 3.3.1 Estimation and forecasting

If we consider the 1998 data on high forests valid for year 2000, we get the following table:

	2000
Forest Plantations (production) (1 000 ha)	316
High Forest (Production) (1 000 ha)	3 794
Natural reserves etc. (Cat. I and II) (1 000 ha)	2 509
Remaining (difference) (1 000 ha)	6 518
<b>Total Forest (1 000 ha)</b>	<b>13 137</b>

Total area of forest and of forest plantations are taken from table T1. The area of “High Forest” and “Remaining” is estimated by applying their relative proportions in 2000 to the difference [Total forest area – forest plantations – Natural Reserves].

#### 3.3.2 Reclassification into FRA 2010 categories

##### Forest

National classes	Production	Conservation	No or unknown
Nature Reserves, Wilderness Areas, and National Parks (categories I and II)		100%	
High Forests	100%		
Plantations	100%		
Remaining			100%

FRA 2005 Categories	Area in 1 000 hectares			
	1990	2000	2005	2010
Production	5 576	4 110	3 377	2 645
<i>Forest Plantation</i>	251	316	349	382
<i>High Forest</i>	5325	3 794	3 028	2 263
Conservation (1)	2 509	2 509	2 509	2 509
No/unknown designation	9 149	6 518	5 203	3 887
<b>Total forest area</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>	<b>9 041</b>

Notes: 1. Assume the area excludes area designated primarily for production purpose

The Conservation area is assumed to be constant for all three reporting years. The area of “High Forest” and “Remaining” is estimated by applying their relative proportions in 2000 to the difference [Total forest area – forest plantations – Natural Reserves].

### 3.4 Data for Table T3

**Table 3a – Primary designated function**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	5 576	4 110	3 377	2 645
Protection of soil and water	0	0	0	0
Conservation of biodiversity	2 509	2 509	2 509	2 509
Social services	0	0	0	0
Multiple use	0	0	0	0
Other (please specify in comments below the table)	0	0	0	0
No / unknown	9 149	6 518	5 203	3 887
<b>TOTAL</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>	<b>9 041</b>

**Table 3b – Special designation and management categories**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	4 105	4 105	4 105	4 105
Forest area within protected areas	2 509	2 509	2 509	2 509
Forest area under sustainable forest management	n/a	n/a	n/a	n/a
Forest area with management plan	n/a	3 730	3 730	3 730

### 3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production		
Protection of soil and water		
Conservation of biodiversity		It is assumed that the area remains unchanged.
Social services		
Multiple use		
Other		
No / unknown designation		
Area of permanent forest estate	ITTO information has been used. No other data is presently available.	It is assumed that the area remain unchanged.
Forest area within protected areas	It is equal to the area of Conservation of biodiversity.	

Forest area under sustainable forest management		
Forest area with management plan	According to ITTO report 2005, management for production and protection = 2 720 000 + 1 010 000 = 3 730 000 ha.	

**Other general comments to the table**

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## 4 Table T4 – Forest characteristics

### 4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
<b>Characteristics categories</b>	
Primary forest	Naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
Other naturally regenerated forest of introduced species (sub-category)	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species (sub-category)	Planted forest, where the planted/seeded trees are predominantly of introduced species.
<b>Special categories</b>	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

### 4.2 National data

#### 4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
The world's mangrove 1980-2005, FAO	M	Mangrove	1980-2005	.
Maduako, C. 2005. Information provided for the Global Forest Resources Assessment (FRA) 2005 thematic study on mangroves. Unpublished.	M	Mangrove	2005	Unpublished. Quoted in The world's mangrove 1980-2005, FAO

## 4.2.2 Original data

From T1:

	<b>1977</b>	<b>1994</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>
Forest	22 559	15 594	17 234	13 137	11 089	9 041

Furthermore, undisturbed forest equals 2 623 000 ha in 1977 and 1 228 000 ha in 1997.

From T3 :

Category	Area in 1000 ha					
	<b>1977</b>	<b>1994</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
Forest Plantation	101	159	146	180	197	214
Teak/Gmelina Plantation	63	117	105	136	152	168
<b>Total</b>	<b>164</b>	<b>276</b>	<b>251</b>	<b>316</b>	<b>349</b>	<b>382</b>

From The world's mangrove 1980-2005, FAO

	<b>2000</b>	<b>2005</b>
Mangroves (1 000 ha)	997	997

## 4.3 Analysis and processing of national data

### 4.3.1 Reclassification into FRA 2010 categories

Undisturbed forest = Primary forest;  
 Plantation forest and Teak/Gmelina plantations = Planted forest;  
 Teak/Gmelina plantations = introduced species;  
 Remaining forest = other naturally regenerated forest;

### 4.3.2 Estimation and forecasting

	<b>1977</b>	<b>1994</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>	<b>1000 ha</b>
<b>Total Forest</b>	<b>22 559</b>	<b>15 594</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>	<b>9 041</b>
Primary forest	2 623	1 228	1 556	736	326	0
Planted forest	164	276	251	316	349	382
<i>Introduced species</i>	63	117	105	136	152	168
Other naturally regenerated forest	15 427	12 085	10 414	15 427	12 085	8 659

For 1990 to 2005, estimations of primary forest follow a linear extrapolation. For 2010, no new data is available to assess and estimate the future situation. But the risk is high that remain only small and scattered patches of primary forests. Consequently the category of “other naturally regenerated forest” in 2010 may include some areas of Primary forest.

#### 4.4 Data for Table T4

**Table 4a**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	1 556	736	326	0
Other naturally regenerated forest	15 427	12 085	10 414	8 659
...of which of introduced species	0	0	0	0
Planted forest	251	316	349	382
...of which of introduced species	105	136	152	168
<b>TOTAL</b>	<b>17 234</b>	<b>13 137</b>	<b>11 089</b>	<b>9 041</b>

**Table 4b**

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	n/a	n/a	n/a	n/a
Mangroves (Forest and OWL)	1012	997	997	997
Bamboo (Forest and OWL)	n/a	n/a	n/a	n/a

#### 4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		By the rate of decrease all primary forests are gone in 2010. But no new data is available to assess and estimate the future situation. Consequently the category of “other naturally regenerated forest” in 2010 may include some areas of Primary forest.
Other naturally regenerating forest		
Planted forest		Linear extrapolation adopted and applied.
Rubber plantations	No data. Rubber is considered an agricultural crop and not captured in previous Forest surveys.	
Mangroves	More areas were constituted as government Forest Reserves in the Mangrove Zone of the country. Data from the 1995 Land Use (from table T1) has been used for 1990. Then, the information provided by “the world’s mangrove 1980-2005, FAO” has been kept for the other reporting years.	It is considered that the mangrove area remains stable from 2005 to 2010.
Bamboo	No data. There are various species of Bamboo in Nigeria but not captured in conventional Forest surveys.	

#### Other general comments to the table

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## 5 Table T5 – Forest establishment and reforestation

### 5.1 FRA 2010 Categories and definitions

Term	Definition
Afforestation	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest.
Reforestation	Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
Natural expansion of forest	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).

### 5.2 National data

#### 5.2.1 Original data

From T3 :

Category	Area in 1000 ha					
	1977	1994	1990	2000	2005	2010
Forest Plantation	101	159	146	180	197	214
Teak/Gmelina Plantation	63	117	105	136	152	168
<b>Total</b>	<b>164</b>	<b>276</b>	<b>251</b>	<b>316</b>	<b>349</b>	<b>382</b>

### 5.3 Analysis and processing of national data

#### 5.3.1 Estimation and forecasting

Based on table T3, it is assumed that the reforestation activities follows a constant average of 3 400 ha/year. The annual establishment of introduced species (Teak/Gmelina plantations) is between 3 100 ha and 3 200 ha.

### 5.4 Data for Table T5

FRA 2010 Categories	Annual forest establishment (hectares/year)			...of which of introduced species <sup>1)</sup> (hectares/year)		
	1990	2000	2005	1990	2000	2005
Afforestation	0	0	0	0	0	0
Reforestation	3400	3400	3400	3100	3200	3200
...of which on areas previously planted	n/a	n/a	n/a	n/a	n/a	n/a
Natural expansion of forest	0	0	0	0	0	0

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

## 5.5 Comments to Table T5

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Afforestation		
Reforestation	It assume that all plantations are reforestation.	
Natural expansion of forest	It is rare because of extensive/intensive farming	

Other general comments to the table



## 6 Table T6 – Growing stock

### 6.1 FRA 2010 Categories and definitions

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

### 6.2 National data

#### 6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Olufemi A. Olaleye and Ameh, C. E. 1999. Forest Resource Situation Assessment of Nigeria EC-FAO PARTNERSHIP PROGRAMME (1998-2002); Tropical forestry Budget line B7-6201/97-15/VIII/FOR, Abuja, Nigeria	M	Growing stock for production area and plantations	1977 1994	

#### 6.2.2 Original data

High forest gross timber volumes (excluding bark) by forest designation and forest type. 1998

Forest Land Designation	Forest Type	Area (ha)	Gross Volume under bark (m3)
Forest Reserve	Freshwater swamp	224 369	23 353 102
	Lowland rain	757 740	98 599 957
	Riparian	2 547	169 101
Free Area	Freshwater swamp	1 424 739	150 814 914
	Lowland rain	912 094	109 544 813
	Mangrove	5 314	443 860
Game Reserve	Riparian	80 368	4 526 678
	Lowland rain	12 365	1 633 706
National Park	Riparian	5 492	386 513
	Lowland rain	369 412	46 878 597
<b>Total</b>		<b>3 794 440</b>	<b>436 351 241</b>
<b>Average Vol/ha</b>			<b>115</b>

Standing Volume of forest plantations derived from Inventory. 1998

STATE	AREA (ha)	Under bark
		Volume (m3)
1. Lagos	1 049	281 869
2. Ogun	40 147	16 830 603
3. Oyo	6 743	2 169 967
4. Osun	9 259	2 625 817
5. Ondo & Ekiti	23 574	8 321 814
6. Edo	21 522	10 609 067
7. Delta	4 014	1 291 681
8. Rivers & Bayelsa	0	0
9. Cross. Rivers	14 364	7 716 584
10. Akwa-Ibom	2 229	659 413
11. Imo	1 252	692 197
12. Abia	3 714	2 007 058
13. Anambra	3 827	1 896 140
14. Enugu/Ebonyi	13 750	7 598 434
15. Benue	2 226	3 023 116
16. Kwara	9 720	4 708 102
17. Kogi	5 503	1 794 826
18. Niger	5 619	2 496 654
19. Kebbi	891	289 821
20. Kaduna	5 866	1 973 468
21. Kano	1761	484 782
22. lateau/Nasarawa	6938	2 465 098
23. Adamawa	1249	370 328
24. Taraba	1394	398 131
<b>Total</b>	<b>186611</b>	<b>80 704 970</b>
<b>Average (m3/ha)</b>		<b>432</b>

### 6.3 Analysis and processing of national data

#### 6.3.1 Estimation and forecasting

The forest area from T1 is used as an input

Category	m3/ha	Area in 1000 ha			
		1990	2000	2005	2010
Natural forest	115	16 983	12 821	10 740	8 659
Plantation	432	251	316	349	382
<b>TOTAL</b>		<b>17 234</b>	<b>13 137</b>	<b>11 089</b>	<b>9 041</b>

Multiplying area by average vol/ha gives the following:

	Growing stock in million cubic meters			
	1990	2000	2005	2010
Natural Forest	1 953	1 474	1 235	996
Plantation	108	137	151	165
<b>Total</b>	<b>2 061</b>	<b>1 611</b>	<b>1 386</b>	<b>1 161</b>

## 6.4 Data for Table T6

**Table 6a – Growing stock**

FRA 2010 category	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	2 061	1 611	1 386	1 161	n/a	n/a	n/a	n/a
... of which coniferous	0	0	0	0	n/a	n/a	n/a	n/a
... of which broadleaved	2 061	1 611	1 386	1 161	n/a	n/a	n/a	n/a
Growing stock of commercial species	108	137	151	165	n/a	n/a	n/a	n/a

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

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 <sup>st</sup>	<i>no data available</i>				
2 <sup>nd</sup>					
3 <sup>rd</sup>					
4 <sup>th</sup>					
5 <sup>th</sup>					
6 <sup>th</sup>					
7 <sup>th</sup>					
8 <sup>th</sup>					
9 <sup>th</sup>					
10 <sup>th</sup>					
Remaining					
<b>TOTAL</b>					

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

**Table 6c – Specification of threshold values**

Item	Value	Complementary information
Minimum diameter (cm) at breast height <sup>1</sup> of trees included in growing stock (X)	20	
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	-	Variable (based on merchantable height)
Minimum diameter (cm) of branches included in growing stock (W)	-	Branches usually no included.
Volume refers to “above ground” (AG) or “above stump” (AS)	AS	

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

## 6.5 Comments to Table T6

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total growing stock		Linear extrapolation adopted and applied.
Growing stock of broadleaved / coniferous	Most of the trees are broad leaved	Linear extrapolation adopted and applied.
Growing stock of commercial species		Linear extrapolation adopted and applied.
Growing stock composition	Data not available for Growing stock of the 10 most common species.	

### Other general comments to the table

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## 7 Table T7 – Biomass stock

### 7.1 FRA 2010 Categories and definitions

Category	Definition
Above-ground biomass	All living biomass above the soil including stem, stump, branches, bark, seeds, and foliage.
Below-ground biomass	All biomass of live roots. Fine roots of less than 2mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Dead wood	All non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.

### 7.2 National data

#### 7.2.1 Original data

Data from table T6 were used in biomass computation.

### 7.3 Analysis and processing of national data

The following conversion factors were used:

	Basic Density (ton/m <sup>3</sup> )	BEF	R/S ratio	D/L ratio
Forests	0.58	2.97	0.24	0.14
Plantations	0.58	1.52	0.24	0.14

### 7.4 Data for Table T7

FRA 2010 category	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass	3 459	2 660	2 261	1 861	n/a	n/a	n/a	n/a
Below-ground biomass	830	638	543	447	n/a	n/a	n/a	n/a
Dead wood	601	462	392	323	n/a	n/a	n/a	n/a
<b>TOTAL</b>	<b>4 890</b>	<b>3 760</b>	<b>3 196</b>	<b>2 631</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

### 7.5 Comments to Table T7

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

Other general comments to the table

## 8 Table T8 – Carbon stock

### 8.1 FRA 2010 Categories and definitions

Category	Definition
Carbon in above-ground biomass	Carbon in all living biomass above the soil, including stem, stump, branches, bark, seeds, and foliage.
Carbon in below-ground biomass	Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded, because these often cannot be distinguished empirically from soil organic matter or litter.
Carbon in dead wood	Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in litter	Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm), lying dead in various states of decomposition above the mineral or organic soil.
Soil carbon	Organic carbon in mineral and organic soils (including peat) to a specified depth chosen by the country and applied consistently through the time series.

### 8.2 National data

#### 8.2.1 Original data

Data from table T7 were used and a conversion factor of 0.47 applied.

### 8.3 Analysis and processing of national data

#### 8.3.1 Estimation and forecasting

A/ -Carbon stock is calculated by multiplying the biomass by 0.47.

B/- Carbon in the litter has been estimated, based on the standard factor of 2.1 (tropical), and

- Soil carbon has been estimated, based on the factor of 47 (tropical, moist with LAC soils).

The biomass/ hectare values are then applied to the forest and other wooded land area values in table T1 to get the biomass for the reporting years.

Year	1990	2000	2005	2010
Total Forest (1000 ha)	17 234	13 137	11 089	9 041
Carbon in the litter (1000 C)	36 191	27 588	23 287	18 986
Soil carbon (1000 C)	809 998	617 439	521 183	424 927

#### 8.4 Data for Table T8

FRA 2010 Category	Carbon (Million metric tonnes)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Carbon in above-ground biomass	1 626	1 250	1 062	875	n/a	n/a	n/a	n/a
Carbon in below-ground biomass	390	300	255	210	n/a	n/a	n/a	n/a
<b><i>Sub-total: Living biomass</i></b>	<b><i>2 016</i></b>	<b><i>1 550</i></b>	<b><i>1 317</i></b>	<b><i>1 085</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>
Carbon in dead wood	282	217	184	152	n/a	n/a	n/a	n/a
Carbon in litter	36	28	23	19	n/a	n/a	n/a	n/a
<b><i>Sub-total: Dead wood and litter</i></b>	<b><i>318</i></b>	<b><i>245</i></b>	<b><i>207</i></b>	<b><i>171</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>	<b><i>n/a</i></b>
Soil carbon	810	617	521	425	n/a	n/a	n/a	n/a
<b>TOTAL</b>	<b>3 144</b>	<b>2 412</b>	<b>2 045</b>	<b>1 681</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Soil depth (cm) used for soil carbon estimates	30
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#### 8.5 Comments to Table T8

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

Other general comments to the table



## **9 Table T9 – Forest fires**

Data is not available for this table.

## **10 Table T10 – Other disturbances affecting forest health and vitality**

Data is not available for this table.

## 11 Table T11 – Wood removals and value of removals

### 11.1 FRA 2010 Categories and definitions

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

### 11.2 National data

#### 11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FAO STAT	L	Industrial round wood	1988-1992	
FAO STAT	L	Fuel wood	1998-2002	

#### 11.2.2 Classification and definitions

#### 11.2.3 Original data

Year	Industrial roundwood m <sup>3</sup> u.b.	Wood Fuel m <sup>3</sup> u.b.	Industrial roundwood m <sup>3</sup> o.b.	Wood Fuel m <sup>3</sup> o.b.
1988	7 868 000	50 645 764		
1989	7 868 000	50 786 024		
1990	8 263 000	50 916 960	9 320 750	59 095 509
1991	8 263 000	51 733 968		
1992	8 263 000	52 854 280		
1998	9 418 000	58 417 792		
1999	9 418 000	58 873 676		
2000	9 418 000	59 348 652	10 830 700	68 172 460
2001	9 418 000	59 697 552		
2002	9 418 000	60 064 328		
2003	9 418 000	60 449 216		
2004	9 418 000	60 852 440		
2005	9 418 000	61 274 260	10 830 700	70 427 202
2006	9 418 000	61 629 309		
2007	9 418 000	62 000 000		

### 11.3 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m <sup>3</sup> o.b.)	9 321	10 831	10 831	59 095	68 172	70 427
... of which from forest	9 321	10 831	10 831	59 095	68 172	70 427
Unit value (local currency / m <sup>3</sup> o.b.)	585	1 320	1 500	40	650	850
Total value (1000 local currency)	5452785	14296920	16246500	2363800	44311800	59862950

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

	1990	2000	2005
Name of local currency	Naira	Naira	Naira

### 11.4 Comments to Table T11

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of industrial roundwood removals		
Total volume of woodfuel removals		
Unit value	The strong increases in the values (between 1990 and 2000) were due to the rapid and consistent devaluation of the naira. In 1990, a dollar exchanged for 9.00 naira but came to 109.55 naira in 2000.	
Total value		

#### Other general comments to the table

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

### 12.1 FRA 2010 Categories and definitions

Term	Definition
Non-wood forest product (NWFP)	Goods derived from forests that are tangible and physical objects of biological origin other than wood.
Value of NWFP removals	For the purpose of this table, value is defined as the market value at the site of collection or forest border.

### NWFP categories

Category
<p><b><u>Plant products / raw material</u></b></p> <ol style="list-style-type: none"> <li>1. Food</li> <li>2. Fodder</li> <li>3. Raw material for medicine and aromatic products</li> <li>4. Raw material for colorants and dyes</li> <li>5. Raw material for utensils, handicrafts &amp; construction</li> <li>6. Ornamental plants</li> <li>7. Exudates</li> <li>8. Other plant products</li> </ol> <p><b><u>Animal products / raw material</u></b></p> <ol style="list-style-type: none"> <li>9. Living animals</li> <li>10. Hides, skins and trophies</li> <li>11. Wild honey and bee-wax</li> <li>12. Wild meat</li> <li>13. Raw material for medicine</li> <li>14. Raw material for colorants</li> <li>15. Other edible animal products</li> <li>16. Other non-edible animal products</li> </ol>

### 12.2 National data

#### 12.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FORMECU (1996) Nigerian Tropical Forestry Action Programme	M	NWFP		
National expert knowledge	M	NWFP		

### 12.3 Data for Table T12

Rank	Name of product	Key species	Unit	NWFP removals 2005		NWFP category
				Quantity	Value (1000 local currency)	
1 <sup>st</sup>	Wildlife	Grasscutter		n/a	n/a	15
2 <sup>nd</sup>	Tannin	<i>Landophia oweriensis</i>		n/a	n/a	4
3 <sup>rd</sup>	Rattan	<i>Calamus spp</i>		n/a	n/a	5
4 <sup>th</sup>	Wrapping leaves	<i>Thematococcus</i>		n/a	n/a	8
5 <sup>th</sup>	Mushroom	<i>Mushroom</i>		n/a	n/a	1
6 <sup>th</sup>	Medicinal plants	<i>Azadrachta indica</i>		n/a	n/a	3
7 <sup>th</sup>	Native salt	Salt		n/a	n/a	
8 <sup>th</sup>	Condiments	<i>Irvingia gabonensis</i>		n/a	n/a	3
9 <sup>th</sup>	Palm fruits	<i>Elais guinnensis</i>		n/a	n/a	1
10 <sup>th</sup>	Fodder	<i>Panicum pennisetum</i>		n/a	n/a	2
All other plant products					n/a	
All other animal products					n/a	
<b>TOTAL</b>					n/a	

	2005
Name of local currency	Naira

### 12.4 Comments to Table T12

Variable / category	Comments related to data, definitions, etc.
10 most important products	
Other plant products	
Other animal products	
Value by product	
Total value	

Other general comments to the table

## 13 Table T13 – Employment

### 13.1 FRA 2010 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment	Includes all persons in paid employment or self-employment.
Paid employment	Persons who during a specified reference period performed some work for <u>wage or salary</u> in cash or in kind.
Self-employment	Persons who during a specified reference period performed some work for <u>profit or family gain</u> in cash or in kind (e.g. employers, own-account workers, members of producers' cooperatives, contributing family workers).

### 13.2 National data

#### 13.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
a) FORMACU, Federal Department of Forestry (1996) Nigeria Forestry Action Programme	H	Number of Personal	1996	Data based on national field survey
b) Adedoyin, O.S. (2001). Formulation and Implementation of National forest programmes in Nigeria. Report prepared for FAO	H	Number of personal	2000	Data based on National field survey.

#### 13.2.2 Classification and definitions

National class	Definition
Federal Dept. of Forestry (FDF)	Personal working with the National Government (Federal Government of Nigeria)
State Forestry Department (SFD)	Personal working with the state government (forestry sub-sector)
Forestry Research Institute of Nigeria (FRIN) & University	

### 13.2.3 Original data

	1990	2000
FDF Employees	1 023	803
SFD Employees	9 424	9 938
Total	10 447	10 741

## 13.3 Analysis and processing of national data

### 13.3.1 Reclassification into FRA 2010 categories

SFD employees = Primary production of goods

### 13.4 Data for Table T13

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods	9.4	9.9	10
...of which paid employment	9.4	9.9	10
...of which self-employment	n/a	n/a	n/a
Employment in management of protected areas	1.1	1.2	1.5

### 13.5 Comments to Table T13

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Employment in primary production of goods	Data refer only to the paid employment.	
Paid employment / self-employment		
Employment in management of protected areas	The data obtained and shown above are for the staff of National Parks only.	

#### Other general comments to the table

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## 14 Table T14 – Policy and legal framework

### 14.1 FRA 2010 Categories and definitions

Term	Definition
Forest policy	Forest policy is the set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest and tree resources for the benefit of the society.
Forest law	Set of rules enacted by the legislative authority of a country regulating the access, management, conservation and use of forest resources.

### 14.2 Data for Table T14

Indicate the existence of the following (2008)			
<b>1. Forest policy statement with national scope</b>	<input checked="" type="checkbox"/>	Yes	
	<input type="checkbox"/>	No	
If Yes above, provide:	Year of endorsement	2006	
	Reference to document	National Forest Policy, Federal Department of Forestry, Abuja	
<b>2. National forest programme (nfp)</b>	<input checked="" type="checkbox"/>	Yes	
	<input type="checkbox"/>	No	
If Yes above, provide:	Name of nfp in country	National Forest Programme	
	Starting year	2002	
	Current status	<input type="checkbox"/>	In formulation
		<input type="checkbox"/>	In implementation
		<input checked="" type="checkbox"/>	Under revision
<input type="checkbox"/>		Process temporarily suspended	
Reference to document or web site	Technical Report, project proposal for next phase, Federal Department of Forestry, Abuja		
<b>3. Law (Act or Code) on forest with national scope</b>	<input type="checkbox"/>	Yes, specific forest law exists	
	<input type="checkbox"/>	Yes, but rules on forests are incorporated in other (broader) legislation	
	<input checked="" type="checkbox"/>	No, forest issues are not regulated by national legislation	
If Yes above, provide:	Year of enactment		
	Year of latest amendment		
	Reference to document		



In case the responsibility for forest policy- and/or forest law-making is decentralized, please indicate the existence of the following and explain in the comments below the table how the responsibility for forest policy- and law-making is organized in your country.		
<b>4. Sub-national forest policy statements</b>		Yes
	X	No
If Yes above, indicate the number of regions/states/provinces with forest policy statements		
<b>5. Sub-national Laws (Acts or Codes) on forest</b>		Yes
		No
If Yes above, indicate the number of regions/states/provinces with Laws on forests		36 States plus Federal Capital Territory

**Explanatory notes to the reporting table:**

1. The national forest policy document or statement describes the objectives, priorities and means for implementation of the forest policy. It is endorsed when it is officially recognised as a government policy or instruction. The endorsement is formalised by the Minister in charge of forests by a dated and signed document.
2. The term “national forest programme” is a generic expression referring to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels and providing a framework and guidance for country-driven forest sector development in consultation and participation of all stakeholders and in consistence with policies of other sectors and international policies.
3. The term “law on forest” refers to a Law (Act or Code) providing specific rules on forests and forest sector management, such as access, management and use of forest resources. The Law is enacted when the legislative authority adopted its text.
4. Same as (1) but the policy documents or statements refer to sub-national administrative units, e.g. States in a Federation or Autonomous Regions or Provinces.
5. Same as (3) but indicate if specific Laws on forests exist at sub-national level (at the level of regions/states/provinces).

**14.3 Comments to Table T14**

Variable / category	Comments related to data, definitions, etc.
Forest policy statement with national scope	
National forest programme (nfp)	
Law (Act or Code) on forest with national scope	
Sub-national forest policy statements	
Sub-national Laws (Acts or Codes) on forest	

Other general comments to the table

## 15 Table T15 – Institutional framework

### 15.1 FRA 2010 Categories and definitions

Term	Definition
Minister responsible for forest policy-making	Minister holding the main responsibility for forest issues and the formulation of the forest policy.
Head of Forestry	The Head of Forestry is the Government Officer responsible for implementing the mandate of the public administration related to forests.
Level of subordination	Number of administrative levels between the Head of Forestry and the Minister.
University degree	Qualification provided by University after a minimum of 3 years of post secondary education.

### 15.2 Data for Table T15

Table 15a

FRA 2010 Category	2008	
Minister responsible for forest policy formulation : please provide full title	Hon. Minister of Environment at the Federal level and the Honourable Commissioners responsible for forestry in the States.	
Level of subordination of Head of Forestry within the Ministry		1 <sup>st</sup> level subordination to Minister at the Federal level and Commissioner at the State level.
	X	2 <sup>nd</sup> level subordination to Minister at the federal level and Commissioner at the state level
		3 <sup>rd</sup> level subordination to Minister at the Federal level and Commissioner at the State level.
		4 <sup>th</sup> or lower level subordination to Minister at the federal level and Commissioner at State level.
Other public forest agencies at national level	Forestry Research Institute of Nigeria (FRIN)	
Institution(s) responsible for forest law enforcement	States Forestry Department	

Table 15b

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total staff	10 741	8%	11 200	8.5%	13 120	9%
...of which with university degree or equivalent	3 120	3%	4 050	4%	5 320	6%

Note: Excludes people employed in State-owned enterprises, education and research, as well as temporary / seasonal workers.

**15.3 Comments to Table T15**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Minister responsible for forest policy formulation		
Level of subordination of Head of Forestry within the Ministry		
Other public forest agencies at national level		
Institution(s) responsible for forest law enforcement		
Human resources within public forest institutions	Data source : Nigerian Bureau of Statistics	

**Other general comments to the table**

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## 16 Table T16 – Education and research

### 16.1 FRA 2010 Categories and definitions

Term	Definition
Annual graduation of students	Number of students that have successfully completed a Bachelor's or higher degree in forest science or achieved a certificate or diploma as forest technician.
Doctor's degree (PhD)	University (or equivalent) education with a total duration of about 8 years.
Master's degree (MSc) or equivalent	University (or equivalent) education with a total duration of about five years.
Bachelor's degree (BSc) or equivalent	University (or equivalent) education with a duration of about three years.
Technician certificate or diploma	Qualification issued from a technical education institution consisting of 1 to 3 years post secondary education.
Publicly funded forest research centers	Research centers implementing research programmes on forest matters. Funding is public or channelled through public institutions.

### 16.2 National data

#### 16.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Nigerian University Commission	M	Graduates	2000-2008	

### 16.3 Data for Table T16

FRA 2010 Category	Annual graduation of students within the country					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Master's degree in Forest Science	100	10	150	10	180	12
Bachelor's degree in Forest Science	250	10	310	10	400	12
Forest technician certificate / diploma	400	10	450	10	560	12
FRA 2010 Category	Professionals working in public forest research centres					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Doctor's degree (PhD)	12	16.6	15	26.6	20	40.0
Master's degree (MSc) or equivalent	28	42.8	31	32.25	78	22.6
Bachelor's degree (BSc) or equivalent	30	25.0	55	18.18	212	15.9

#### 16.4 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Annual graduation of students within the country		More Universities offering Post Graduate Courses in Forestry were established.
Professionals working in public forest research centres		

Other general comments to the table

## 17 Table T17 – Public revenue collection and expenditure

### 17.1 FRA 2010 Categories and definitions

Category	Definition
Forest revenue	All government revenue collected from the domestic production and trade of forest products and services. For this purpose, forest products include: roundwood; sawnwood; wood-based panels; pulp and paper; and non-wood forest products. As far as possible, this should include revenue collected by all levels of government (i.e. central, regional/provincial and municipal level), but it should exclude the income of publicly owned business entities.
Public expenditure	All government expenditure on forest related activities (further defined below).
Operational expenditure (sub-category to Public expenditure)	All government expenditure on public institutions solely engaged in the forest sector. Where the forest administration is part of a larger public agency (e.g. department or ministry), this should only include the forest sector component of the agency's total expenditure. As far as possible, this should also include other institutions (e.g. in research, training and marketing) solely engaged in the forest sector, but it should exclude the expenditure of publicly owned business entities.
Transfer payments (sub-category to Public expenditure)	All government expenditure on direct financial incentives paid to non-government and private-sector institutions, enterprises communities or individuals operating in the forest sector to implement forest related activities.
Domestic funding	Public expenditure funded from domestic public financial resources, including: retained forest revenue; forest-related funds; and allocations from the national budget (i.e. from non-forest sector public revenue sources).
External funding	Public expenditure funded from grants and loans from donors, non-governmental organisations, international lending agencies and international organisations, where such funds are channelled through national public institutions.

### 17.2 National data

#### 17.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Federal Department of Forestry	M	Allocation	2000-2005	
State Forestry Departments	M	Allocation and revenue	2000-2005	

### 17.3 Data for Table T17

Table 17a - Forest revenues

FRA 2010 Categories	Revenues (1000 local currency)	
	2000	2005
Forest revenue	n/a	n/a

**Table 17b - Public expenditure in forest sector by funding source**

FRA 2010 Categories	Domestic funding (1000 local currency)		External funding (1000 local currency)		Total (1000 local currency)	
	2000	2005	2000	2005	2000	2005
Operational expenditure	450	500	n/a	n/a	450	500
Transfer payments	0	0	n/a	n/a	0	0
<b>Total public expenditure</b>	450	500	n/a	n/a	450	500
If transfer payments are made for forest management and conservation, indicate for what specific objective(s) - Please tick all that apply.	<input type="checkbox"/>	Reforestation				
	<input type="checkbox"/>	Afforestation				
	<input type="checkbox"/>	Forest inventory and/or planning				
	<input type="checkbox"/>	Conservation of forest biodiversity				
	<input type="checkbox"/>	Protection of soil and water				
	<input type="checkbox"/>	Forest stand improvement				
	<input type="checkbox"/>	Establishment or maintenance of protected areas				
	<input type="checkbox"/>	Other, specify below				

**17.4 Comments to Table T17**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue		
Operational expenditure	Revenue generated is paid into Central Government Treasury. Allocation of Funds to Departments is at the discretion of budget office and not necessarily proportional to the amount contributed to government purse.	
Transfer payments		

Other general comments to the table