Global Forest Resources Assessment 2020

Report

Nigeria

Rome, 2020

FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946. The Global Forest Resources Assessments (FRA) are now produced every five years in an attempt to provide a consistent approach to describing the world's forests and how they are changing. The FRA is a country-driven process and the assessments are based on reports prepared by officially nominated National Correspondents. If a report is not available, the FRA Secretariat prepares a desk study using earlier reports, existing information and/or remote sensing based analysis.

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Introduction

Report preparation and contact persons

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Introductory text

Nigeria with about 180,000,000 people used to be blessed with abundant forest resources but presently contributing about 2.5% to the Gross Domestic Products. These resources provide employment for over 5 million people through supply of timber and non-timber products (flora and fauna). Over 800,000 people are working in the log processing industries, especially in the southern forest zones of the country.

The resources abound in the Rain forests (high and low). Savanna (derived and guinea), plantations and trees on farmlands. As at today forests occupy less than 8% of the total land area of 923,763 km^2. This total is made up of close to 1000 Gazetted Reserves, 7 National Parks, 32 Game Reserves and 1 Strict Nature Reserve which are distributed over the five main ecological zones of Fresh water/mangrove, the lowland rainforest, the derived savanna, sudan and sahel savanna.

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, leaves, herbs, fibres, gum etc. and environmental services like 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 over-exploitation leading to forest and land degradation. Also, dereservation for agriculture, industrial development, urbanisation etc

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

2006	**References**	National Forest Carbon Inventory carried out by REDD+ Programme. Financed by FAO in 2018. National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria. Federal Department of Forestry, Federal Ministry of Environment, January 2019.
	Methods used	National Forest Inventory, Sample-based remote sensing assessment
	Additional comments	

2016	**References**	National Forest Carbon Inventory programme by REDD+. Financed by FAO in 2018 National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria. Federal Department of Forestry, Federal Ministry of Environment, January 2019.
	Methods used	National Forest Inventory, Sample-based remote sensing assessment
	Additional comments	

Classifications and definitions

	National class	**Definition**
2006	Mangrove Swamp	This is the forest and other wooded land in the coastal and Delta areas of Nigeria.
	Lowland Rainforest	This is an area of dense evergreen forest of tall trees with thick undergrowth consisting of three layers of trees: the emergent layer with trees more than 36 m high; the middle layer between 15-30 m; while the lowest layer is generally below 15 m.
	Montane Forest	These highlands are characterized by grassland vegetation at the base, forest vegetation on the windward slope and grassland vegetation on the plateaus surface.
	Derived Savanna	The flora on the area is peculiar with many species of woody and herbaceous plants not found elsewhere in West Africa and the altitude is about 1200m.
	Guinea Savanna	This is characterized by dense populations forest.
	Sudan Sahel	This vegetation consists of grasses, open thorn shrub savanna with scattered trees, 4 to 9 m in height most of them are thorny, and extensive sparse grasses.

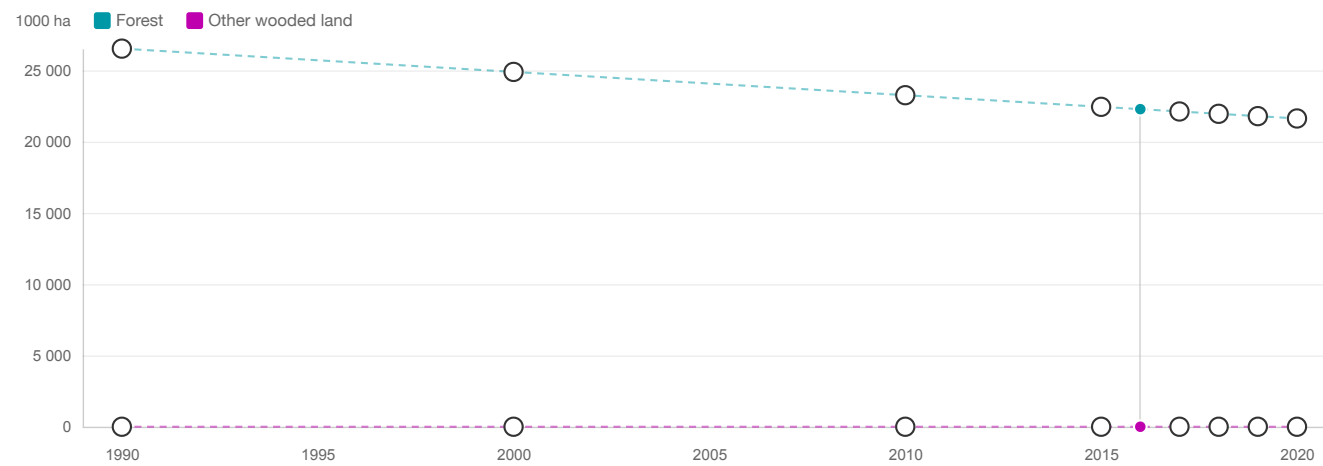|	**National class**	**Definition**
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Original data and reclassification

	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Mangrove Swamp	5 813.33	62.64 %	0.00 %	37.36 %
	Lowland Rainforest	13 971.66	55.95 %	0.00 %	44.05 %
2006	Montane Forest	2 227.46	47.18 %	0.00 %	52.82 %
	Derived Savanna	13 293.63	29.88 %	0.00 %	70.12 %
	Guinea Savanna	29 804.86	21.36 %	0.00 %	78.64 %
	Sudan Sahel	26 044.46	4.09 %	0.00 %	95.91 %
	Total	**91 155.40**	**23 913.20**	**0.00**	**67 242.20**

2016	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Mangrove Swamp	5 813.33	61.47 %	0.00 %	38.53 %
	Lowland Rainforest	13 971.66	53.03 %	0.00 %	46.97 %
	Montane Forest	2 227.46	47.18 %	0.00 %	52.82 %
	Derived Savanna	13 293.63	28.86 %	0.00 %	71.14 %
	Guinea Savanna	29 804.86	18.16 %	0.00 %	81.84 %
	Sudan Sahel	26 044.46	3.83 %	0.00 %	96.17 %

	Total	91 155.40	22 280.15	0.00	68 875.25

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	26 526.09	24 893.04	23 259.98	22 443.45	22 280.15	22 116.85	21 953.55	21 790.25	21 626.95
Other wooded land (a)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other land (c-a-b)	**64 550.91**	**66 183.96**	**67 817.02**	**68 633.55**	**68 796.85**	**68 960.15**	**69 123.45**	**69 286.75**	**69 450.05**
Total land area (c)	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**	**91 077.00**

The FAOSTAT land area figure for the year 2015 is used for all reference years

Climatic domain	% of forest area 2015	Override value
Boreal	**0.00**	
Temperate	**0.00**	
Sub-tropical	**0.00**	
Tropical	**100.00**	

Comments

There are considerabe extensions of other wooded land and with current inventory data it can not be estimated and has therefore been included under other land.

Forest area is considerably higher than what was reported to FRA 2015, due to the availability of new and better data.

1b Forest characteristics

National Data

Data sources + type of data source eg NFI, etc

The data source is from the NFI (Carbon) conducted through the REDD+ programme in 2018.

National classification and definitions

The National Classification: Mangrove Forest, Freshwater Swamp Forest, Lowland Rainforest, Montane Forest, Derived Savanna, Jos Plateau, Guinea Savanna, Sudan Savanna and Sahel Savanna.
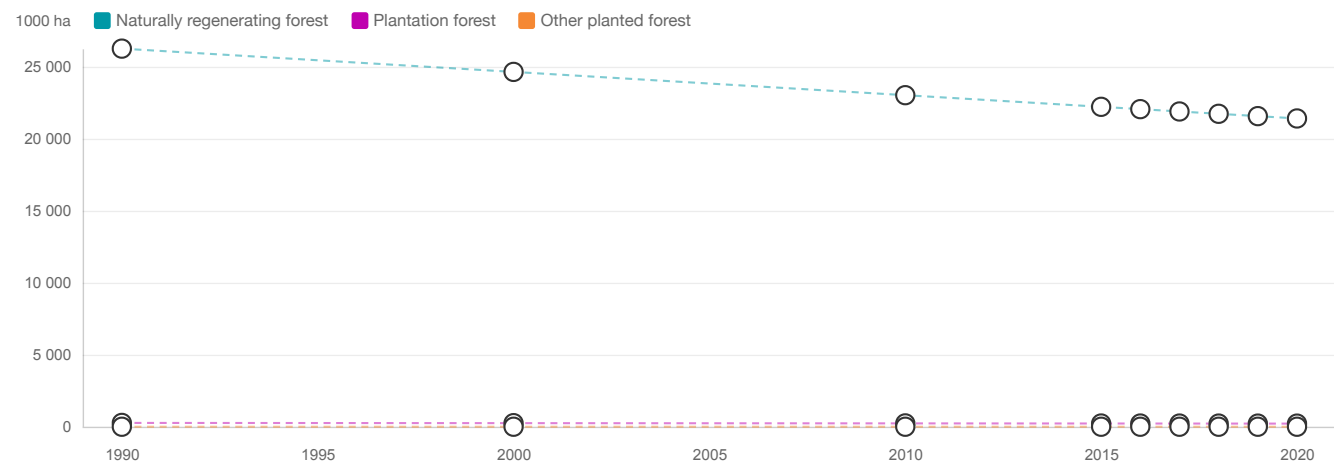
Original data

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Analysis and processing of national data

Estimation and forecasting

The references are based on 2015 FRA country report

Reclassification into FRA 2020 categories

No reclassification done.

1000 ha

- ■ Naturally regenerating forest
- ■ Plantation forest
- ■ Other planted forest

FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	26 260.30	24 644.11	23 027.38	22 219.02	22 057.35	21 895.68	21 734.01	21 572.35	21 410.68
Planted forest (b)	**265.26**	**248.93**	**232.60**	**224.43**	**222.80**	**221.17**	**219.54**	**217.90**	**216.27**
Plantation forest	265.26	248.93	232.60	224.43	222.80	221.17	219.54	217.90	216.27
...of which introduced species	105.00	135.00	165.00	200.00					
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (a+b)	**26 525.56**	**24 893.04**	**23 259.98**	**22 443.45**	**22 280.15**	**22 116.85**	**21 953.55**	**21 790.25**	**21 626.95**
Total forest area	**26 526.09**	**24 893.04**	**23 259.98**	**22 443.45**	**22 280.15**	**22 116.85**	**21 953.55**	**21 790.25**	**21 626.95**

Comments

Data for this section is from the NFI (Carbon) carried out by REDD+ programme in 2018 financed by FAO. Data for ...of which introduced species is from the FRA 2015 report.

1c Primary forest and special forest categories

National Data

Data sources + type of data source eg NFI, etc

Data source from NFI (Carbon), 2018 is complemented by data from FRA 2015 report

National classification and definitions

National Classification already defined.

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Area (1000 ha)				
	1990	**2000**	**2010**	**2015**	**2020**
Primary forest					
Temporarily unstocked and/or recently regenerated					
Bamboos					
Mangroves	1 012.00	997.00	997.00	983.70	976.40
Rubber wood					

Comments

No data for Bamboos, Temporary unstocked and/ or recently regenerated, primary forests and Rubber wood

1d Annual forest expansion, deforestation and net change

National Data

Data sources + type of data source eg NFI, etc

Same data source as in sections 1a and 1b.

National classification and definitions

National classification has already been mentioned in the earlier section

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Area (1000 ha/year)			
	1990-2000	**2000-2010**	**2010-2015**	**2015-2020**
Forest expansion (a)	0.01	0.00	0.00	0.01
…of which afforestation				
…of which natural expansion				
Deforestation (b)	163.31	163.31	163.31	163.31
Forest area net change (a-b)	**-163.31**	**-163.31**	**-163.31**	**-163.30**

Comments

1e Annual reforestation

National Data

Data sources + type of data source eg NFI, etc

Data source already mentioned

National classification and definitions

National Classification already mentioned.

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Area (1000 ha/year)			
	1990-2000	**2000-2010**	**2010-2015**	**2015-2020**
Reforestation	16.33	16.33	16.33	16.33

Comments

1f Other land with tree cover

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Area (1000 ha)				
	1990	**2000**	**2010**	**2015**	**2020**
Palms (a)					
Tree orchards (b)					
Agroforestry (c)					
Trees in urban settings (d)					
Other (specify in comments) (e)					
Total (a+b+c+d+e)	–	–	–	–	–
Other land area	64 550.91	66 183.96	67 817.02	68 633.55	69 450.05

Comments

No data available for this section

2 Forest growing stock, biomass and carbon

2a Growing stock

National Data

Data sources + type of data source eg NFI, etc

National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria, January 2019

National classification and definitions

-

Original data

Original data are derived from the FREL report and are based on the Nigeria Forest Carbon Inventory.

The FREL report only provides data on emission factors expressed as t CO2 per hectare by ecological zones. These values were then converted to t C, t biomass and m3 per hectare and weighted by the area of each ecological zone to obtain national averages.

Ecological zone	Forest area	Data from FREL submission			CARBON (calculated, CO2 x 12/44)						BIOMASS (C fraction 0.47)				
		Biomass	DeadWood	Total	Biomass	DeadWood	Total		AGB	BGB	AGB	BGB	Deadwood		Volume
	hectares	tCO2e	tCO2e	tCO2e	t C	t C	t C	r/s ratio	t C	t C	t	t	t	BCEF	m3/ha
Derived Savanna	3,836,005	253.88	19.71	273.59	69.24	5.38	74.62	0.235	60.42	14.20	128.55	30.21	11.44	1.3	98.88
Guinea savanna	5,412,446	98.76	3.93	102.69	26.93	1.07	28.01	0.235	22.68	5.33	48.25	11.34	2.28	2.05	23.54
Lowland Rainforest	7,409,270	368.59	30.79	399.39	100.52	8.40	108.92	0.205	90.39	18.53	192.33	39.43	17.87	1.3	147.94
Mangrove / swamp	3,573,265	321.02	15.76	354.53	87.55	4.30	96.69	0.205	80.24	16.45	170.72	35.00	9.15	1.3	131.33
Montane Forest	1,050,960	368.59	30.79	399.39	100.52	8.40	108.92	0.205	90.39	18.53	192.33	39.43	17.87	1.3	147.94
Sudan sahel - Dry savanna	998,412	20.18	3.77	23.95	5.50	1.03	6.53	0.235	5.29	1.24	11.25	2.64	2.19	2.8	4.02
Weighted average: Forest	**22,280,358**	**260.05**	**18.74**	**281.64**	**70.92**	**5.11**	**76.81**		**63.34**	**13.47**	**134.77**	**28.66**	**10.87**		**100.16**

The estimated average growing stock of 100.16 m3/ha has been used for all years and for both natural and planted forest.

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

No other data source apart from the previous report. No data for OWL. Growing stock calculated at weighted mean of natural and planted forest.

FRA categories	Growing stock m³/ha (over bark)								
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Naturally regenerating forest	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16
Planted forest	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16
…of which plantation forest	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16
…of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16	100.16
Other wooded land									

FRA categories	Total growing stock (million m³ over bark)								
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Naturally regenerating forest	2 630.23	2 468.35	2 306.42	2 225.46	2 209.26	2 193.07	2 176.88	2 160.69	2 144.49
Planted forest	26.57	24.93	23.30	22.48	22.32	22.15	21.99	21.82	21.66
…of which plantation forest	26.57	24.93	23.30	22.48	22.32	22.15	21.99	21.82	21.66
…of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	2 656.85	2 493.29	2 329.72	2 247.94	2 231.58	2 215.22	2 198.87	2 182.51	2 166.16
Other wooded land									

Comments

No data for planted forest of which plantation forest and of which other planted forest. Also other wooded land.

2b Growing stock composition

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

Analysis and processing of national data

Estimation and forecasting
-

Reclassification into FRA 2020 categories
-

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#1 Ranked in terms of volume	Albizia zygia	Albizia					
#2 Ranked in terms of volume	Entandrophragma candollei	Entandrophragma					
#3 Ranked in terms of volume	Parkia biglobosa	Locust bean					
#4 Ranked in terms of volume	Vitellaria paradoxa	Shea butter					
#5 Ranked in terms of volume	Milicia excelsa	Iroko					
#6 Ranked in terms of volume	Khaya senegalensis	Dry zone mahogany					
#7 Ranked in terms of volume	Mansonia altisima	mansonia					
#8 Ranked in terms of volume	Chrsophyllum albidum	Cherry					
#9 Ranked in terms of volume	Afzelia africana	Apa					
#10 Ranked in terms of volume	Garcinia kola	Bitter kola					
Remaining native tree species							
Total volume of native tree species			–	–	–	–	–
Introduced tree species							
#1 Ranked in terms of volume	Tectona grandis	Teak					
#2 Ranked in terms of volume	Gmelina arborea	Gmelina					
#3 Ranked in terms of volume	Eucalyptus regia	Eucalyptus					

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#4 Ranked in terms of volume	Acacia nilotica	Gum arabic					
#5 Ranked in terms of volume	Pinus radiata	Pine					
Remaining introduced tree species							
Total volume of introduced tree species			–	–	–	–	–
Total growing stock			–	–	–	–	–

Comments

No data for growing stock for the indegenous species and the introduced species

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria, January 2019

National classification and definitions

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Ecological zone	Forest area	Data from FREL submission			CARBON (calculated, CO2 x 12/44)						BIOMASS (C fraction 0.47)				
		Biomass	DeadWood	Total	Biomass	DeadWood	Total		AGB	BGB	AGB	BGB	Deadwood		Volume
	hectares	tCO2e	tCO2e	tCO2e	t C	t C	t C	r/s ratio	t C	t C	t	t	t	BCEF	m3/ha
Derived Savanna	3,836,005	253.88	19.71	273.59	69.24	5.38	74.62	0.235	60.42	14.20	128.55	30.21	11.44	1.3	98.88
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Weighted average: Forest	**22,280,358**	**260.05**	**18.74**	**281.64**	**70.92**	**5.11**	**76.81**		**63.34**	**13.47**	**134.77**	**28.66**	**10.87**		**100.16**

The estimated average stocks of above-ground biomass, below-ground biomass and dead wood has been used for all years.

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	134.77	134.77	134.77	134.77	134.77	134.77	134.77	134.77	134.77
Below-ground biomass	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66
Dead wood	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87	10.87

Comments

2d Carbon stock

National Data

Data sources + type of data source eg NFI, etc

National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria, January 2019

National classification and definitions

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	hectares	tCO2e	tCO2e	tCO2e	t C	t C	t C	r/s ratio	t C	t C	t	t	t	BCEF	m3/ha
Derived Savanna	3,836,005	253.88	19.71	273.59	69.24	5.38	74.62	0.235	60.42	14.20	128.55	30.21	11.44	1.3	98.88
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The estimated average carbon stocks have been used for all years.

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Forest carbon (tonnes/ha)								
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Carbon in above-ground biomass	63.34	63.34	63.34	63.34	63.34	63.34	63.34	63.34	63.34
Carbon in below-ground biomass	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47
Carbon in dead wood	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11
Carbon in litter									
Soil carbon									

Soil depth (cm) used for soil carbon estimates	

Comments

3 Forest designation and management

3a Designated management objective

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

Analysis and processing of national data

Estimation and forecasting
-

Reclassification into FRA 2020 categories
-

Primary designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production (a)	6 893.60	5 254.80	3 616.40	2 797.20	1 502.20
Protection of soil and water (b)	3 446.80	2 627.40	1 808.20	1 398.60	751.11
Conservation of biodiversity (c)	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70
Social Services (d)	861.70	656.85	452.05	349.65	187.82
Multiple use (e)	861.70	656.85	452.05	349.65	187.83
Other (specify in comments) (f)	0.00	0.00	0.00	0.00	0.00
None/unknown (g)	11 571.59	12 806.44	14 040.58	14 657.65	16 107.29
Total forest area	26 526.09	24 893.04	23 259.98	22 443.45	21 626.95

Total area with designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production					
Protection of soil and water					
Conservation of biodiversity					
Social Services					
Other (specify in comments)					

Comments

3b Forest area within protected areas and forest area with long-term management plans

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

Analysis and processing of national data

Estimation and forecasting
-

Reclassification into FRA 2020 categories
-

FRA categories	Area (1000 ha)								
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Forest area within protected areas	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70	2 890.70
Forest area with long-term forest management plan	11 202.10	8 539.05	6 031.90	4 545.45	4 124.58	3 703.72	3 282.86	2 862.00	2 441.14
…of which in protected areas									

Comments

No data for ..of which in protected areas.

4 Forest ownership and management rights

4a Forest ownership

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Forest area (1000 ha)			
	1990	**2000**	**2010**	**2015**
Private ownership (a)	861.70	656.85	452.05	349.65
…of which owned by individuals				
…of which owned by private business entities and institutions				
…of which owned by local, tribal and indigenous communities				
Public ownership (b)	16 372.30	12 480.15	8 588.95	6 643.35
Unknown/other (specify in comments) (c)	**9 292.09**	**11 756.04**	**14 218.98**	**15 450.45**
Total forest area	**26 526.09**	**24 893.04**	**23 259.98**	**22 443.45**

Comments

No data for Private ownership of which owned by individuals, of which owned by private business entities and institutions and of which owned by local, tribal and indigenous communities.

4b Holder of management rights of public forests

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

Analysis and processing of national data

Estimation and forecasting
-

Reclassification into FRA 2020 categories
-

FRA categories	Forest area (1000 ha)			
	1990	**2000**	**2010**	**2015**
Public Administration (a)	16 372.30	12 480.15	8 588.95	6 643.35
Individuals (b)	0.00	0.00	0.00	0.00
Private business entities and institutions (c)	0.00	0.00	0.00	0.00
Local, tribal and indigenous communities (d)	0.00	0.00	0.00	0.00
Unknown/other (specify in comments) (e)	**0.00**	**0.00**	**0.00**	**0.00**
Total public ownership	**16 372.30**	**12 480.15**	**8 588.95**	**6 643.35**

Comments

No data for b, c and d.

5 Forest disturbances

5a Disturbances

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

Analysis and processing of national data

Estimation and forecasting
-

Reclassification into FRA 2020 categories
-

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Insects (a)																		
Diseases (b)																		
Severe weather events (c)																		
Other (specify in comments) (d)																		
Total (a+b+c+d)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total forest area	**24 893.04**	–	–	–	–	–	**23 913.20**	–	–	–	**23 259.98**	–	–	–	–	**22 443.45**	**22 280.15**	**22 116.85**

Comments

No data for this section.

5b Area affected by fire

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total land area affected by fire	11 345.00	10 104.00	9 450.00	8 228.00	7 821.00	7 226.00	7 222.00	8 897.00	4 492.00	5 113.00	4 444.00	3 664.00	3 103.00	3 005.00	2 089.00	2 538.00	2 000.00	2 100.00
…of which on forest	42.00	40.00	35.00	47.00	7.00	7.00	10.00	26.00	9.00	22.00	6.00	10.00	5.00	6.00	4.00	12.00	4.00	5.00

Comments

5c Degraded forest

Does your country monitor area of degraded forest		Yes
If "yes"	What is the national definition of "Degraded forest"?	A Degraded Forest is the forest that has decreased in tree cover, the biodiversity in the forests or the changes to a lower state of the forest structure.
	Describe the monitoring process and results	Remote Sensing with Ground-truthing with the production of Forest Management Plan

Comments

6 Forest policy and legislation

6a Policies, Legislation and national platform for stakeholder participation in forest policy

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Indicate the existence of	Boolean (Yes/No)	
	National	**Sub-national**
Policies supporting SFM	Yes	Yes
Legislations and regulations supporting SFM	Yes	Yes
Platform that promotes or allows for stakeholder participation in forest policy development	Yes	Yes
Traceability system(s) for wood products	Yes	Yes

Comments

6b Area of permanent forest estate

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

FRA 2020 categories	Forest area (1000 ha)					
	Applicable?	1990	2000	2010	2015	2020
Area of permanent forest estate	Yes	4 105.00	4 105.00	4 105.00	4 105.00	3 575.00

Comments

7 Employment, education and NWFP

7a Employment in forestry and logging

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

FRA 2020 categories	Full-time equivalents (1000 FTE)											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Employment in forestry and logging	9.40	0.94	8.46	9.90	0.99	8.91	12.00	1.20	10.80	20.00	4.00	16.00
…of which silviculture and other forestry activities												
…of which logging												
…of which gathering of non wood forest products												
…of which support services to forestry												

Comments

Data only available for Employment in forestry and logging generally.

7b Graduation of students in forest-related education

National Data

Data sources + type of data source eg NFI, etc
-

National classification and definitions
-

Original data
-

FRA 2020 categories	Number of graduated students											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Doctoral degree												
Master's degree												
Bachelor's degree												
Technician certificate / diploma	24.00	21.00	3.00	379.00	38.00	341.00	562.00	136.00	426.00	979.00	349.00	630.00
Total												

Comments

Data to be provided later

7c Non wood forest products removals and value 2015

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

	Name of NWFP product	Key species	Quantity	Unit	Value (1000 local currency)	NWFP category
#1	Fruits	Chrysophillum albidum				1 Food
#2	Cane/Rattan					5 Raw material for utensils handicrafts construction
#3	Honey					3 Raw material for medicine and aromatic products
#4	Herbs	Adzadiracta indica				3 Raw material for medicine and aromatic products
#5	Locust beans	Parkia biglobosa				1 Food
#6	Dyes					14 Raw material for colorants
#7	Gums	Acacia nilotica				7 Exudates
#8	Mushrooms					1 Food
#9	Bush meat	Thryonomys swinderanus				1 Food
#10	Bitter cola	Garcinia kola				13 Raw material for medicine
All other plant products						
All other animal products						
Total				–		

Name of currency	

Comments

No data for Quantity, Unit and Value.

8 Sustainable Development Goal 15

8a Sustainable Development Goal 15

SDG Indicator 15.1.1 Forest area as proportion of total land area 2015

Indicator	Percent							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area as proportion of total land area 2015	27.33	25.54	24.64	24.46	24.28	24.10	23.93	23.75

Name of agency responsible	FEDERAL DEPARTMENT OF FORESTRY

SDG Indicator 15.2.1 Progress towards sustainable forest management

Sub-Indicator 1	Percent						
	2000-2010	2010-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Forest area annual net change rate	-0.68	-0.71	-0.73	-0.74	-0.74	-0.75	-0.76

Name of agency responsible	FEDERAL DEPARTMENT OF FORESTRY

Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	134.77	134.77	134.77	134.77	134.77	134.77	134.77	134.77

Name of agency responsible	FEDERAL DEPARTMENT OF FORESTRY

Sub-Indicator 3	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area located within legally established protected areas	12.88	12.88	12.88	12.88	12.88	12.88	12.88	12.88

Name of agency responsible	FEDERAL DEPARTMENT OF FORESTRY

Sub-Indicator 4	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area under long-term forest management plan	38.05	26.88	20.25	18.38	16.50	14.63	12.75	10.88

Name of agency responsible	FEDERAL DEPARTMENT OF FORESTRY

Sub-Indicator 5	Forest area (1000 ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area under independently verified forest management certification schemes	0.00	0.00	0.00	0.00	0.00	0.00	–	–