



Food and Agriculture  
Organization of the  
United Nations

# Global Forest Resources Assessment 2020

Report

**Liberia**

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

The present report was prepared by the following person(s)

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## Introductory text

Place an introductory text on the content of this report

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

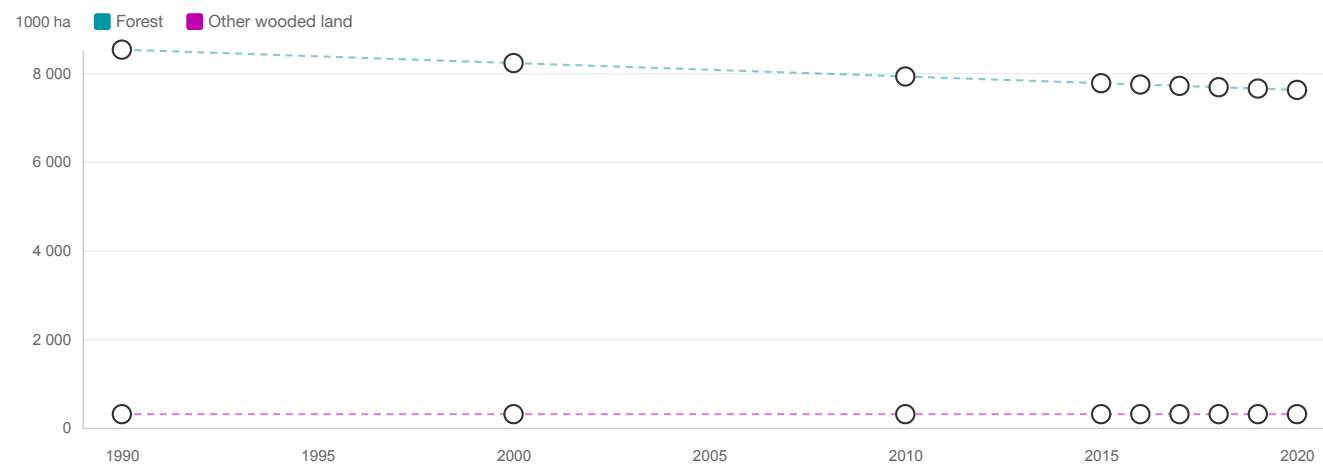
2014	References	Goslee et al. 2016.Development of Liberia’s REDD+ Reference Level: Final Report for Republic of Liberia Forest Development Authority.
	Methods used	Sample-based remote sensing assessment, Full-cover forest/vegetation maps
	Additional comments	

Classifications and definitions

2014	National class	Definition
	high forest	Land with >80% tree cover
	medium forest	Land with 30%-80% Tree cover
	other wooded land	Land with 1% - 30% tree cover
	other land use	

Original data and reclassification

2014	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	high forest	4 389.00	100.00 %	0.00 %	0.00 %
	medium forest	2 186.00	100.00 %	0.00 %	0.00 %
	other wooded land	1 530.00	80.00 %	20.00 %	0.00 %
	other land use	1 467.00	0.00 %	0.00 %	100.00 %
	Total	9 572.00	7 799.00	306.00	1 467.00



FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	8 525.24	8 222.64	7 920.04	7 768.74	7 738.48	7 708.22	7 677.96	7 647.70	7 617.44
Other wooded land (a)	306.00	306.00	306.00	306.00	306.00	306.00	306.00	306.00	306.00
Other land (c-a-b)	800.76	1 103.36	1 405.96	1 557.26	1 587.52	1 617.78	1 648.04	1 678.30	1 708.56
Total land area (c)	9 632.00	9 632.00	9 632.00	9 632.00	9 632.00	9 632.00	9 632.00	9 632.00	9 632.00

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

The reason why data reported to FRA 2015 was different is that Liberia has a new data set for the year 2014 which is the cause of the change in reported data. An annual change rate of -30.26 was applied to generate the annual change over the period 2001-2014. This data is referenced from page 33 of the final report of Liberia REDD+ Reference Level which has been uploaded on to the platform

1b Forest characteristics

National data

Data sources

2014	References	Goslee et al. 2016.Development of Liberia’s REDD+ Reference Level: Final Report for Republic of Liberia Forest Development Authority.
	Methods used	Sample-based remote sensing assessment, Full-cover forest/vegetation maps
	Additional comments	

Classifications and definitions

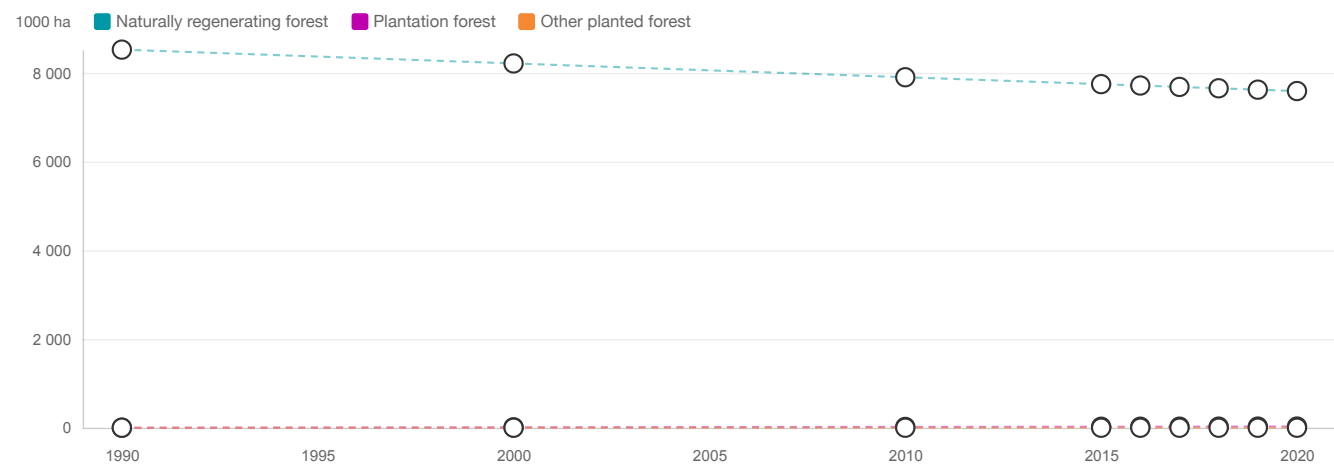
2014	National class	Definition
	high forest	Land with >80% tree cover
	medium forest	Land with 30%-80% Tree cover
	other wooded land	Land with 1% - 30% tree cover
	other land use	

Original data and reclassification

2014	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	high forest	4 389.00	100.00 %	%	%
	medium forest	2 186.00	99.00 %	1.00 %	%
	other wooded land	1 224.00	100.00 %	%	%
	Total	7 799.00	7 777.14	21.86	—

Plantation forest	Area (1000 ha)	...of which introduced
medium forest	21.86	%
Total	21.86	—





FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	8 524.04	8 212.83	7 901.62	7 746.02	7 714.90	7 683.78	7 652.66	7 621.53	7 590.41
<b>Planted forest (b)</b>	<b>1.20</b>	<b>9.81</b>	<b>18.42</b>	<b>22.72</b>	<b>23.58</b>	<b>24.44</b>	<b>25.30</b>	<b>26.17</b>	<b>27.03</b>
Plantation forest	1.20	9.81	18.42	22.72	23.58	24.44	25.30	26.17	27.03
...of which introduced species									
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total (a+b)</b>	<b>8 525.24</b>	<b>8 222.64</b>	<b>7 920.04</b>	<b>7 768.74</b>	<b>7 738.48</b>	<b>7 708.22</b>	<b>7 677.96</b>	<b>7 647.70</b>	<b>7 617.44</b>
<b>Total forest area</b>	<b>8 525.24</b>	<b>8 222.64</b>	<b>7 920.04</b>	<b>7 768.74</b>	<b>7 738.48</b>	<b>7 708.22</b>	<b>7 677.96</b>	<b>7 647.70</b>	<b>7 617.44</b>

## Comments

According to Liberia's forest definition, plantation forests including oil palm and rubber are not considered forest. For the purpose of this report, we used the FAO definition and included rubber plantation as plantation forest.

Liberia forest definition however agreed agriculture plantations are not forest, Therefore in my mind, rubber plantations are not forest. Moreover, the planted forest gradually reduced after the plantations will awarded for harvest.

# 1c Primary forest and special forest categories

## National Data

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

World Atlas of Mangroves

### National classification and definitions

-

### Original data

Mangrove area 2010: 10900 hectares. Insignificant changes.

## 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	10.90	10.90	10.90	10.90	10.90
Rubber wood					

Comments

## 1d Annual forest expansion, deforestation and net change

### 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/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Forest expansion (a)	0.00	0.00	0.00	0.00
...of which afforestation				
...of which natural expansion				
Deforestation (b)	30.26	30.26	30.26	30.26
Forest area net change (a-b)	-30.26	-30.26	-30.26	-30.26

Comments

1e Annual reforestation

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/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Reforestation				

Comments

No data available.



## 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	800.76	1 103.36	1 405.96	1 557.26	1 708.56

Comments

No data available.

## **2 Forest growing stock, biomass and carbon**

### **2a Growing stock**

#### **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	Growing stock m³/ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Planted forest	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
...of which plantation forest	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Other wooded land									

FRA categories	Total growing stock (million m³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	1 346.80	1 297.63	1 248.46	1 223.87	1 218.95	1 214.04	1 209.12	1 204.20	1 199.28
Planted forest	0.19	1.55	2.91	3.59	3.73	3.86	4.00	4.13	4.27
...of which plantation forest	0.19	1.55	2.91	3.59	3.73	3.86	4.00	4.13	4.27
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	1 346.99	1 299.18	1 251.37	1 227.46	1 222.68	1 217.90	1 213.12	1 208.34	1 203.56
Other wooded land									

## Comments

## 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

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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							
#2 Ranked in terms of volume							
#3 Ranked in terms of volume							
#4 Ranked in terms of volume							
#5 Ranked in terms of volume							
#6 Ranked in terms of volume							
#7 Ranked in terms of volume							
#8 Ranked in terms of volume							
#9 Ranked in terms of volume							
#10 Ranked in terms of volume							
Remaining native tree species							
Total volume of native tree species			–	–	–	–	–
Introduced tree species							
#1 Ranked in terms of volume							
#2 Ranked in terms of volume							
#3 Ranked in terms of volume							
#4 Ranked in terms of volume							
#5 Ranked in terms of volume							
Remaining introduced tree species							
Total volume of introduced tree species			–	–	–	–	–
Total growing stock			–	–	–	–	–

Comments

Data not available.

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

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Original data

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Analysis and processing of national data

Estimation and forecasting

Insert the percentages of Growing stock by IPCC forest type for each of the FRA forest categories									
IPCC forest types	FRA forest categories								
	Naturally regenerating forest	Plantation forest	Other planted forest						
	% of Growing stock								
Broadleaved humid	100%	100%	100%						
Broadleaved dry									
Coniferous									
	100%	100%	100%	Must add up to 100%					
Insert Carbon fraction used by country (IPCC default = 0.47)									
Carbon Fraction	47%								
Biomass conversion and expansion factors (BCEF)									
Naturally regenerating forest	1990	2000	2010	2015	2016	2017	2018	2019	2020
Broadleaved humid	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Broadleaved dry	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Coniferous	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70

Plantation forest									
Broadleaved humid	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Broadleaved dry	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Coniferous	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Other planted forest									
Broadleaved humid									
Broadleaved dry									
Coniferous									
Weighted BCEF									
Naturally regenerating forest	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Plantation forest	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Other planted forest									
Root-shoot ratios									
Naturally regenerating forest	1990	2000	2010	2015	2016	2017	2018	2019	2020
Broadleaved humid	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Broadleaved dry	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Coniferous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Plantation forest									
Broadleaved humid	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Broadleaved dry	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Coniferous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Other planted forest									
Broadleaved humid									
Broadleaved dry									
Coniferous									
Weighted RS ratio									
Naturally regenerating forest	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Plantation forest	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Other planted forest									



Above-ground biomass (t/ha)									
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40
Plantation forest	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40
Other planted forest									
Total	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40
Below-ground biomass (t/ha)									
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30
Plantation forest	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30
Other planted forest									
Total	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30

Reclassification into FRA 2020 categories

-

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40
Below-ground biomass	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30	49.30
Dead wood									

Comments

Liberia is still undertaking its National Forest Inventory and therefore has therefore not yet developed a county specific data on Liberia forest and carbon stock. For the purpose of this report, we have used global datasets to estimate forest biomass. Please reference the following publications:

Walker SM, Goslee, KM, Murray, L, Eickhoff, G, and Morikawa, Y. 2016. Guidance on Developing a National Forest Inventory for Forest Carbon Sampling. Adapted by Winrock International.

Walker, SM, TRH Pearson, FM Casarim, N Harris, S Petrova, A Grais, E Swails, M Netzer, KM Goslee and S Brown. 2016. Standard Operating Procedures for Terrestrial Carbon Measurement: Version 2016. Winrock International.

Goslee, K, SM Walker, A Grais, L Murray, F Casarim, and S Brown. 2015. LEAF Technical Guidance Series for the Development of a Forest Carbon Monitoring System for REDD+, Module C-CS: Calculations for Estimating Carbon Stocks. Winrock International.

## 2d Carbon stock

### 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

See table 2c.

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	96.54	96.54	96.54	96.54	96.54	96.54	96.54	96.54	96.54
Carbon in below-ground biomass	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17
Carbon in dead wood									
Carbon in litter									
Soil carbon									

Soil depth (cm) used for soil carbon estimates	
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Comments

Because of the lack of country specific data on carbon stock, we referenced data used for the production of pantropical maps of as used in producing liberia carbon stock maps of aboveground biomass as was used by Metria/Geoville in the production of carbon stock maps. Please see the following references:

Avitabile et al. (2015); Saatchi et al. (2011);, and Baccini et al. (2012).

## **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)					
Protection of soil and water (b)					
Conservation of biodiversity (c)					
Social Services (d)					
Multiple use (e)					
Other (specify in comments) (f)					
None/unknown (g)	8 525.24	8 222.64	7 920.04	7 768.74	7 617.44
Total forest area	8 525.24	8 222.64	7 920.04	7 768.74	7 617.44

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

No data available.

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									
Forest area with long-term forest management plan									
...of which in protected areas									

Comments

No data available.



## **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)				
...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)				
Unknown/other (specify in comments) (c)	–	–	–	–
Total forest area	8 525.24	8 222.64	7 920.04	7 768.74

## Comments

No data available.

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)				
Individuals (b)				
Private business entities and institutions (c)				
Local, tribal and indigenous communities (d)				
Unknown/other (specify in comments) (e)	–	–	–	–
Total public ownership	–	–	–	–

Comments

No data available.

## 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	8 222.64	-	-	-	-	-	-	-	-	-	7 920.04	-	-	-	7 799.00	7 768.74	7 738.48	7 708.22

Comments

No data available.

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																		
...of which on forest																		

Comments

No data available.



5c Degraded forest

Does your country monitor area of degraded forest		No
If "yes"	What is the national definition of "Degraded forest"?	
	Describe the monitoring process and results	

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

	References to sources of information	Variables	Years	Additional comments
1	www.fda.gov.lr	Forest Law and Regulations	2006	National Policy, laws and regulations
2	National Forestry Reform	Law	Forest Law 2006	N/A
3	Community Rights Law with Respect to Forestland	SFM	2009	N/A
	The <i>National Wildlife Conservation and Protected Areas Management Act</i>	Law	2016	N/A

##### National classification and definitions

-

##### Original data

-

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

Comments

6b Area of permanent forest estate

National Data

Data sources + type of data source eg NFI, etc

	References to sources of information	Variables	Years	Additional comments
1	www.fda.gov.lr	Forest Law and Regulations	2006	National Policy, laws and regulations
2	National Forestry Reform	Law	Forest Law 2006	N/A
3	Community Rights Law with Respect to Forestland	SFM	2009	N/A
4	The <i>National Wildlife Conservation and Protected Areas Management Act</i>	Law	2016	N/A

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	1 411.00	1 411.00	1 411.00	2 720.00	1 678.00

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							18.75	4.08	14.67	39.88	13.95	25.92
...of which silviculture and other forestry activities							0.35	0.04	0.31	0.45	0.05	0.40
...of which logging							10.40	1.04	9.36	20.50	1.30	11.70
...of which gathering of non wood forest products							5.50	2.85	2.65	15.38	11.28	4.11
...of which support services to forestry							2.50	0.75	1.75	4.00	1.32	2.68

Comments

The Statistic for 2010 covered for only 3 Forest Management Contracts (FMC) and 2 Timber Sales Contract (TSC) that were put into operation. the record for 2015 increased by three fold because of the increment of the number of Logging companies to seven (7) FMC and 10 TSC. Seven of these Contracts were in full operation except two of the TSCs. It is between 2010- 2015 we saw high production and Export of NTFP according to FDA Marketing Report. The harvesting, hauling to roadsides, loading of trucks, off-loading and sorting and preparation for exporting.

## 7b Graduation of students in forest-related education

### National Data

Data sources + type of data source eg NFI, etc

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National classification and definitions

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Original data

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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										25.00	4.00	21.00
Bachelor's degree				15.00	2.00	13.00	27.00	3.00	24.00	65.00	10.00	55.00
Technician certificate / diploma	0.00						65.00	12.00	53.00	76.00	15.00	61.00
Total				15.00	2.00	13.00	92.00	15.00	77.00	176.00	29.00	147.00

Comments

Variable /category	Comments related to data,definitions, etc.	Comments on the reported trend
Graduation of students in forest-related education	<p>The University of Liberia (College of Agriculture and Forestry does not offer MSc, only BSc.</p> <p>Since 2010, Several graduates from the University of Liberia were sent out of Liberia for graduate studies in various field of forestry</p> <p>The Forestry Training Institute was closed down and looted in 1990. The school first graduation was in 2008. Technical level graduates continued to be increased due to other Community Colleges offering Natural Resource Management with emphasis on Forestry.</p>	<p>Number of student graduating from forestry related institutions has tremendously increase since 2005. The University of Liberia (College of Agriculture and Forestry) continued offering degrees in General Forestry, Wood Science and Technology, Conservation and Biodiversity. The Wood Science and Technology Dept. is operating without standard research laboratory compare to pre-war Laboratory that was looted in 1990.</p>

7c Non wood forest products removals and value 2015

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Piloting the Development and Management of Non-TimberForest Products (NTFPs) in Liberia: A Growing Forest Partnership Facilities Project Final Report	H	NWFP	2011	The Project was to determine the distribution of NTFP per county in Liberia.
Forestry Development Authority (FDA) Annual Report	M	NWFP	2015	This based on the information the exporters provide when obtaining the waybill to transport and requesting for export permit

National classification and definitions

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Original data

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	Name of NWFP product	Key species	Quantity	Unit	Value (1000 local currency)	NWFP category
#1	Cam wood	Baphia nitida	2 500	M3	21 093 750	4 Raw material for colorants and dyes
#2	Countrt spice	Xylopia staudtti	6 000	Kg	96 000	3 Raw material for medicine and aromatic products
#3	Better root	Calamus deeratus	500	Kg	10 000	1 Food
#4	Honey	Apis mellifera	250	liters	375 000	11 Wild honey and bee wax
#5	grains of paradise	Aframomun meleguetta	50	Kg	37 500	3 Raw material for medicine and aromatic products
#6	Coula edulis	African walnut	75	Kg	3 750	3 Raw material for medicine and aromatic products
#7	Garcinia kola	Bitter Kola	125	Kg	312 500	3 Raw material for medicine and aromatic products
#8	Garcinia afzelia	Chew-stick	750	M3	6 328 125	3 Raw material for medicine and aromatic products
#9	piper guinensis	King of spices	300	Kg	300 000	3 Raw material for medicine and aromatic products
#10	Thaumatococcus danielii.	African sweet berry	35	Kg	5 250	14 Raw material for colorants
All other plant products						
All other animal products						
Total					28 561 875	

Name of currency	Liberian Dollars
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**Comments**  
Most of the Non-wood Forest Products are exported and the value is based on the products that are declared for export. Few are locally used such as the african walnut, bitter kola.

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	85.37	82.23	80.66	80.34	80.03	79.71	79.40	79.08

Name of agency responsible	Forestry Development Authority
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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	-0.37	-0.39	-0.39	-0.39	-0.39	-0.40	-0.40

Name of agency responsible	Forestry Development Authority (FDA)
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Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	205.40	205.40	205.40	205.40	205.40	205.40	205.40	205.40

Name of agency responsible	Forestry Development Authority (FDA)
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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	–	–	–	–	–	–	–	–

Name of agency responsible	Forestry Development Authority (FDA)
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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	–	–	–	–	–	–	–	–

Name of agency responsible	Forestry Development Authority (FDA)
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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	–	–