Food and Agriculture Organization of the United Nations

Global Forest Resources Assessment 2020

Report

Zimbabwe

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)

Name	Role	Email	Tables
Anderson Muchawona	National correspondent	andersonmuchawona@gmail.com	All

Introductory text

The Republic of Zimbabwe is a landlocked country in southern Africa. Much of the country is a high, rolling plateau at 900–1 500 m elevation. A broad ridge known as the veld runs from southwest to northeast across the country. The country's highest point, Mount Inyangani (2 592 m), is in the mountains on the eastern border.

Although Zimbabwe is in the tropics, its climate is moderated by its high elevation. The average temperature is 16 °C in July (winter) and 21 °C in January (summer). Average annual rainfall is about 890 mm in the high veld and less than 610 mm in most parts of the middle veld. Most rainfall occurs from October to April. IN the FAO global map of ecological zones Zimbabwe belongs to the tropical dry forest and tropical mountain zones.

Forests cover about 45% of the country's land area. Main species are *Brachystegia spiciformis, Baikiaea plurijuga* and *Julbernardia globiflora.* Forest is classified as natural moist deciduous and evergreen forests, woodland, bushland and wooded grassland. The forest has a multi-canopy strata of upper canopy, sub-canopy and under storey of shrubs. Forest plantation are mainly of exotic species including pines (69%), eucalyptus (16%) and wattle 15%). Plantations are systematically planted and they include stands of young and mature trees established for commercial timber production, research trials, firebreaks and woodlots.

INDCs of Zimbabwe state that due to the high potential sequestration capacity of its forests Zimbabwe is a net carbon sink. Furthermore, they include along with other actions the promoting of non-timber forest products and sustainable agro-forestry practices to enhance forest-based adaptation.

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

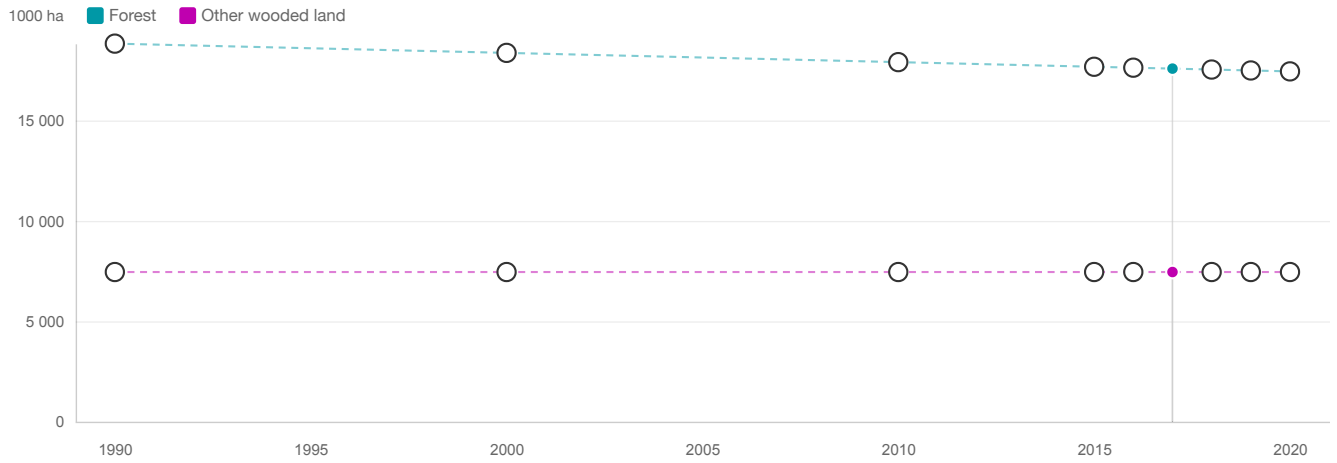
2017	**References**	Land cover map 2018, preliminary estimates. Forest area change map 2000-2017
	Methods used	Full-cover forest/vegetation maps
	Additional comments	Preliminary estimates,

Classifications and definitions

	National class	**Definition**
2017	Forest	Same as FRA
	Other wooded land	Same as FRA

Original data and reclassification

	Classifications and definitions		**FRA classes**		
	Class	**Area (1000 ha)**	**Forest**	**Other wooded land**	**Other land**
2017	Forest	17 582.79	100.00 %	0.00 %	**0.00 %**
	Other wooded land	7 454.32	0.00 %	100.00 %	**0.00 %**
	Total	**25 037.11**	**17 582.79**	**7 454.32**	**0.00**


1000 ha
Forest
Other wooded land
15 000
10 000
5 000
0
1990
1995
2000
2005
2010
2015
2020

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	18 826.68	18 365.98	17 905.28	17 674.93	17 628.86	17 582.79	17 536.72	17 490.65	17 444.58
Other wooded land (a)	7 454.32	7 454.32	7 454.32	7 454.32	7 454.32	7 454.32	7 454.32	7 454.32	7 454.32
Other land (c-a-b)	**12 404.00**	**12 864.70**	**13 325.40**	**13 555.75**	**13 601.82**	**13 647.89**	**13 693.96**	**13 740.03**	**13 786.10**
Total land area (c)	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**	**38 685.00**

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 significant differences from what was reported to FRA 2015, due to new and better data, in particular related to forest area change which has been estimated at an annual loss of 46070 hectares for the period 2000-2017. That loss rate has been applied for the whole time series. The area of other wooded land is assumed to be constant over the time period.

1b Forest characteristics

National Data

Data sources + type of data source eg NFI, etc

1	**Timber Producers Federation.** Zimbabwe Timber Industry Statistics Annual Reports 2000 - 2007	Area of Commercial Timber Plantation	1990, 2005.2012
2	**Forest Act**	Gazetted forest area	

National classification and definitions

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. In Zimbabwe, these are basically the gazetted Forest areas where none/ very little human activities are ensured by the force of law.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities. This includes all other naturally regenerated forest areas (less gazetted forests), in which there is no documented record of the control of human activity.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding. In Zimbabwe, this is composed of the Commercial timber plantations seeing as there is no documented extensive efforts to artificially regenerate indigenous forest species.

Original data

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Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

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1000 ha
Naturally regenerating forest
Plantation forest
Other planted forest
15 000
10 000
5 000
0
1990
1995
2000
2005
2010
2015
2020

FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	18 672.68	18 245.98	17 797.28	17 566.93	17 520.86	17 474.79	17 428.72	17 382.65	17 336.58
Planted forest (b)	**154.00**	**120.00**	**108.00**	**108.00**	**108.00**	**108.00**	**108.00**	**108.00**	**108.00**
Plantation forest	154.00	120.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
…of which introduced species	154.00	120.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (a+b)	**18 826.68**	**18 365.98**	**17 905.28**	**17 674.93**	**17 628.86**	**17 582.79**	**17 536.72**	**17 490.65**	**17 444.58**
Total forest area	**18 826.68**	**18 365.98**	**17 905.28**	**17 674.93**	**17 628.86**	**17 582.79**	**17 536.72**	**17 490.65**	**17 444.58**

Comments

1c Primary forest and special forest categories

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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Analysis and processing of national data

Estimation and forecasting

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Reclassification into FRA 2020 categories

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FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Primary forest					
Temporarily unstocked and/or recently regenerated					
Bamboos	0.00	0.00	0.00	0.00	0.00
Mangroves	0.00	0.00	0.00	0.00	0.00
Rubber wood	0.00	0.00	0.00	0.00	0.00

Comments

1d Annual forest expansion, deforestation and net change

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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Analysis and processing of national data

Estimation and forecasting

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Reclassification into FRA 2020 categories

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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)	46.07	46.07	46.07	46.07
Forest area net change (a-b)	**-46.07**	**-46.07**	**-46.07**	**-46.07**

Comments

1e Annual reforestation

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

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Reclassification into FRA 2020 categories

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

Comments

1f Other land with tree cover

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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Analysis and processing of national data

Estimation and forecasting

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Reclassification into FRA 2020 categories

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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	**12 404.00**	**12 864.70**	**13 325.40**	**13 555.75**	**13 786.10**

Comments

2 Forest growing stock, biomass and carbon

2a Growing stock

National Data

Data sources + type of data source eg NFI, etc

1	http://www.savannas.net/savt3.htm	Above ground biomass ton/ha for woodlands and Savannah, Root-shoot ratio for woodlands and Savannah	1996
2	**Fuller, Ngamo , Sikumi, Umgusa, Bembsi, Gwaai, Inseze, Nyamandhlovu, Lupaka, Mpindo, Pumula, Inkosikazi, Mwenezi, Lake Alice.** 2000 Forest inventories. Forest Commission, Zimbabwe	Vol/ha of indigenous tree species	2000
3	**Millington, A., and Towsend, J. (eds.)** 1989. Biomass assessment. Woody biomass in the SADC region. Earthscan Publication Ltd. London. UK	Derivation of Growing Stock	1985
4	http://www.ipcc-nggip.iges .or.jp/public/2006gl/index.htm	Biomass conversion and expansion factor	2001
6	**Timber Producers Federation.** Zimbabwe Timber Industry Statistics Annual Reports 2003 – 2007. 2012	Areas of Conifers	2003, 2004, 2005,2012

National classification and definitions

National class	Definition
Growing stock (total volume)	The total volume comprises the whole tree volume excluding stumps and roots to a tip diameter of 7.5 cm
Commercial growing stock	Volume of species used for industrial purposes (exotic and natural species)
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.

Original data

For the naturally regenerationg forest, the following average growing stocks were used:

1990-2016: 37.76 m3/ha

2017-2020: 34.13 m3/ha, based on Global forest survey data collected in 2017 (35 clusters)

For the forest plantations, an average growing stock of 96 m3/ha was used.

For the other wooded land, an average growing stock of 12.26 m3/ha was used, based on Global forest survey data collected in 2017 (35 clusters)

Analysis and processing of national data

Estimation and forecasting

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Reclassification into FRA 2020 categories

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FRA categories	Growing stock m³/ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	37.76	37.76	37.76	37.76	37.76	34.13	34.13	34.13	34.13
Planted forest	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00
…of which plantation forest	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00
…of which other planted forest									
Forest	38.24	38.14	38.11	38.12	38.12	34.51	34.51	34.51	34.51
Other wooded land	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26

FRA categories	Total growing stock (million m³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	705.08	688.97	672.03	663.33	661.59	596.41	594.84	593.27	591.70
Planted forest	14.78	11.52	10.37	10.37	10.37	10.37	10.37	10.37	10.37
…of which plantation forest	14.78	11.52	10.37	10.37	10.37	10.37	10.37	10.37	10.37
…of which other planted forest									
Forest	719.93	700.48	682.37	673.77	672.01	606.78	605.19	603.60	602.01
Other wooded land	91.39	91.39	91.39	91.39	91.39	91.39	91.39	91.39	91.39

Comments

volume per ha for 2017 and for other wooded land was derived from Global forest survey data collected in 2017 (35 clusters)

2b Growing stock composition

National Data

Data sources + type of data source eg NFI, etc

1	http://www.savannas.net/savt3.htm	Above ground biomass ton/ha for woodlands and Savannah, Root-shoot ratio for woodlands and Savannah	1996
2	**Fuller, Ngamo , Sikumi, Umgusa, Bembsi, Gwaai, Inseze, Nyamandhlovu, Lupaka, Mpindo, Pumula, Inkosikazi, Mwenezi, Lake Alice.** 2000 Forest inventories. Forest Commission, Zimbabwe	Vol/ha of indigenous tree species	2000
3	**Millington, A., and Towsend, J. (eds.)** 1989. Biomass assessment. Woody biomass in the SADC region. Earthscan Publication Ltd. London. UK	Derivation of Growing Stock	1985
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6	**Timber Producers Federation.** Zimbabwe Timber Industry Statistics Annual Reports 2003 – 2007. 2012	Areas of Conifers	2003, 2004, 2005,2012

National classification and definitions

National class	Definition
Growing stock (total volume)	The total volume comprises the whole tree volume excluding stumps and roots to a tip diameter of 7.5 cm
Commercial growing stock	Volume of species used for industrial purposes (exotic and natural species)
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.

Original data

Species	Growing stock (m^3/ha)[1]
Brachystegia spiciformis (Msasa)	10.4
Julbernadia globiflora (Munondo)	0.71
Colophospermum mopane (Mopane)	0.26
Baikiaea plurijuga (Zambezi teak)	4.1
Terminalia sericea (Silver terminalia)	0.07
Dichrostachys cinerea (Sickle bush)	0.01
Burkea africana (Red syringa)	0.01
Combretum molle (Velvet bushwillow)	0.15
Pinus patula	92.5
Eucalyptus grandis	100.00

Analysis and processing of national data

Estimation and forecasting

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Reclassification into FRA 2020 categories

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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	Brachystegia spiciformis	Msasa	228.90	195.25			
#2 Ranked in terms of volume	Baikiaea plurijuga	Zambezi teak	90.24	76.97			
#3 Ranked in terms of volume	Julbernadia globiflora	Munondo	15.63	13.33			
#4 Ranked in terms of volume	Pinus patula	-	9.80	7.32			
#5 Ranked in terms of volume	Colophospermum mopane	Mopane	5.72	4.88			
#6 Ranked in terms of volume	Eucalyptus grandis	-	4.85	4.11			
#7 Ranked in terms of volume	Combretum molle	Velvet bushwillow	3.30	2.82			
#8 Ranked in terms of volume	Terminalia sericea	Silver terminalia	1.54	1.31			
#9 Ranked in terms of volume	Dichrostachys cinerea	Sickle bush	0.22	1.88			
#10 Ranked in terms of volume	Burkea africana	Red syringe	0.22	1.88			
Remaining native tree species			359.51	390.73			
Total volume of native tree species			**719.93**	**700.48**	–	–	–

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
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			**719.93**	**700.48**	–	–	–

Comments

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

1	http://www.savannas.net/savt3.htm	Above ground biomass ton/ha for woodlands and Savannah, Root-shoot ratio for woodlands and Savannah	1996
2	**Fuller, Ngamo , Sikumi, Umgusa, Bembsi, Gwaai, Inseze, Nyamandhlovu, Lupaka, Mpindo, Pumula, Inkosikazi, Mwenezi, Lake Alice.** 2000 Forest inventories. Forest Commission, Zimbabwe	Vol/ha of indigenous tree species	2000
3	**Millington, A., and Towsend, J. (eds.)** 1989. Biomass assessment. Woody biomass in the SADC region. Earthscan Publication Ltd. London. UK	Derivation of Growing Stock	1985
4	http://www.ipcc-nggip.iges .or.jp/public/2006gl/index.htm	Biomass conversion and expansion factor	2001
6	**Timber Producers Federation.** Zimbabwe Timber Industry Statistics Annual Reports 2003 – 2007. 2012	Areas of Conifers	2003, 2004, 2005,2012

National classification and definitions

National class	Definition
Growing stock (total volume)	The total volume comprises the whole tree volume excluding stumps and roots to a tip diameter of 7.5 cm
Commercial growing stock	Volume of species used for industrial purposes (exotic and natural species)
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.

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										
Broadleaved dry	100%		30%							
Coniferous		100%	70%							
	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	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Broadleaved dry	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Coniferous	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Plantation forest									
Broadleaved humid	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Broadleaved dry	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Coniferous	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Other planted forest									
Broadleaved humid									
Broadleaved dry									
Coniferous									
Weighted BCEF									
Naturally regenerating forest	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Plantation forest	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Other planted forest									
Root-shoot ratios									
Naturally regenerating forest	**1990**	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Broadleaved humid	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Broadleaved dry	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Coniferous	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29

Plantation forest									
Broadleaved humid	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Broadleaved dry	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Coniferous	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Other planted forest									
Broadleaved humid									
Broadleaved dry									
Coniferous									
Weighted RS ratio									
Naturally regenerating forest	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Plantation forest	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Other planted forest									
Above-ground biomass (t/ha)									
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Naturally regenerating forest	105.73	105.73	105.73	105.73	105.73	95.56	95.56	95.56	95.56
Plantation forest	72.96	72.96	72.96	72.96	72.96	72.96	72.96	72.96	72.96
Other planted forest									
Total	**105.46**	**105.51**	**105.53**	**105.53**	**105.53**	**95.43**	**95.42**	**95.42**	**95.42**
Below-ground biomass (t/ha)									
	1990	**2000**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Naturally regenerating forest	29.60	29.60	29.60	29.60	29.60	26.76	26.76	26.76	26.76
Plantation forest	21.16	21.16	21.16	21.16	21.16	21.16	21.16	21.16	21.16
Other planted forest									
Total	**29.53**	**29.55**	**29.55**	**29.55**	**29.55**	**26.72**	**26.72**	**26.72**	**26.72**

Reclassification into FRA 2020 categories

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FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	104.99	105.06	105.00	104.92	105.12	95.01	95.00	94.99	94.98
Below-ground biomass	29.40	29.42	29.40	29.38	29.43	26.60	26.60	26.60	26.60
Dead wood									

Comments

2d Carbon stock

National Data

Data sources + type of data source eg NFI, etc

1	http://www.savannas.net/savt3.htm	Above ground biomass ton/ha for woodlands and Savannah, Root-shoot ratio for woodlands and Savannah	1996
2	**Fuller, Ngamo , Sikumi, Umgusa, Bembsi, Gwaai, Inseze, Nyamandhlovu, Lupaka, Mpindo, Pumula, Inkosikazi, Mwenezi, Lake Alice.** 2000 Forest inventories. Forest Commission, Zimbabwe	Vol/ha of indigenous tree species	2000
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National classification and definitions

National class	Definition
Growing stock (total volume)	The total volume comprises the whole tree volume excluding stumps and roots to a tip diameter of 7.5 cm
Commercial growing stock	Volume of species used for industrial purposes (exotic and natural species)
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.

Original data

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Analysis and processing of national data

Estimation and forecasting

See table 2c

Reclassification into FRA 2020 categories

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FRA categories	Forest carbon (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Carbon in above-ground biomass	49.35	49.38	49.35	49.31	49.41	44.65	44.65	44.65	44.64
Carbon in below-ground biomass	13.82	13.83	13.82	13.81	13.83	12.50	12.50	12.50	12.50
Carbon in dead wood									
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)					
Protection of soil and water (b)					
Conservation of biodiversity (c)					
Social Services (d)					
Multiple use (e)					
Other (specify in comments) (f)					
None/unknown (g)	**18 826.68**	**18 365.98**	**17 905.28**	**17 674.93**	**17 444.58**
Total forest area	**18 826.68**	**18 365.98**	**17 905.28**	**17 674.93**	**17 444.58**

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

FRA google earth engine repository

National classification and definitions

Protected areas refers areas gazzeted under parks and wildlife act

Original data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total area of protected areas	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273
Forest in protected areas	3079256	3078552	3078464	3078243	3078075	3077771	3077452	3077167	3077042	3076756	3076692	3076377	3075894	3075513	3075217	3075006	3074582

Analysis and processing of national data

Estimation and forecasting

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total area of protected areas	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273
Forest in protected areas	3079256	3078552	3078464	3078243	3078075	3077771	3077452	3077167	3077042	3076756	3076692	3076377	3075894	3075513	3075217	3075006	3074582

Reclassification into FRA 2020 categories

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total area of protected areas	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273	4982273
Forest in protected areas	3079256	3078552	3078464	3078243	3078075	3077771	3077452	3077167	3077042	3076756	3076692	3076377	3075894	3075513	3075217	3075006	3074582

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest area within protected areas	3 079.00	3 079.00	3 076.00	3 076.00	3 076.00	3 076.00	3 076.00	3 076.00	3 076.00
Forest area with long-term forest management plan	854.00	820.00	808.00	808.00	808.00	808.00	808.00	808.00	808.00
…of which in protected areas	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00

Comments

Gazzeted forests have longterm plans and are approximately 800 000ha.They are managed by forestry commission.Plantations are managed by private companies and they are approximately 154 000ha

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)	154.00	120.00	108.00	108.00
…of which owned by individuals	0.00	0.00	0.00	0.00
…of which owned by private business entities and institutions	154.00	120.00	108.00	108.00
…of which owned by local, tribal and indigenous communities	0.00	0.00	0.00	0.00
Public ownership (b)	8 937.00	8 937.00	8 937.00	8 937.00
Unknown/other (specify in comments) (c)	**9 735.68**	**9 308.98**	**8 860.28**	**8 629.93**
Total forest area	**18 826.68**	**18 365.98**	**17 905.28**	**17 674.93**

Comments

Private forests are owned by three major companies They are wholly plantations forests with exotic species (Pines and Eucalyptus).

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)	**8 937.00**	**8 937.00**	**8 937.00**	**8 937.00**
Total public ownership	**8 937.00**	**8 937.00**	**8 937.00**	**8 937.00**

Comments

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	**18 365.98**	–	–	–	–	–	–	–	–	–	**17 905.28**	–	–	–	–	**17 674.93**	**17 628.86**	**17 582.79**

Comments

5b Area affected by fire

National Data

Data sources + type of data source eg NFI, etc

FRA website google earth engine repository

National classification and definitions

forest definition is according FAO

Original data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total burned area	2582236	3568380	2463773	2406980	4055446	3396052	3880232	4512011	5501549	5079328	5404930	5214992	4437875	3301404	3751737	4371343	2516813
Forest burned area	1638035	2175496	1702743	1653461	2592636	2279703	2468910	2916246	3317076	3071725	3351367	3160525	2845883	2174223	2357898	2830856	1685777

Analysis and processing of national data

Estimation and forecasting

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total burned area	2582236	3568380	2463773	2406980	4055446	3396052	3880232	4512011	5501549	5079328	5404930	5214992	4437875	3301404	3751737	4371343	2516813
Forest burned area	1638035	2175496	1702743	1653461	2592636	2279703	2468910	2916246	3317076	3071725	3351367	3160525	2845883	2174223	2357898	2830856	1685777

Reclassification into FRA 2020 categories

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total burned area	2582236	3568380	2463773	2406980	4055446	3396052	3880232	4512011	5501549	5079328	5404930	5214992	4437875	3301404	3751737	4371343	2516813
Forest burned area	1638035	2175496	1702743	1653461	2592636	2279703	2468910	2916246	3317076	3071725	3351367	3160525	2845883	2174223	2357898	2830856	1685777

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	2 582.00	3 568.00	2 463.00	2 406.00	4 055.00	3 396.00	3 880.00	4 512.00	5 501.00	5 079.00	5 404.00	5 214.00	4 437.00	3 301.00	3 751.00	4 371.00	2 516.00	
…of which on forest	1 638.00	2 175.00	1 702.00	1 653.00	2 592.00	2 279.00	2 468.00	2 916.00	3 317.00	3 071.00	3 351.00	3 160.00	2 845.00	2 174.00	2 357.00	2 830.00	1 685.00	

Comments

Data was dowloaded from FRA geospatial repository

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

Ministry reports

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	No	No

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	800.00	800.00	800.00	800.00	800.00

Comments

Gazzetted forests managed by forestry commission

7 Employment, education and NWFP

7a Employment in forestry and logging

National Data

Data sources + type of data source eg NFI, etc

Timber Producers Federation Annual publication

Forestry Commission. Monthly Progress Reports.

National classification and definitions

No national definations

Original data

	1990	2000	2005	2008	2009	2010	2011	2012	2013
WORKERS EMPLOYED	16300	17214	15673	14,493	10,209	7,242	8,012	8,169	5018

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	16.30			17.21			7.24					
…of which silviculture and other forestry activities							6.39					
…of which logging												
…of which gathering of non wood forest products												
…of which support services to forestry							0.84					

Comments

Data for 2005 to 2013 is largerly for big commercial forest plantations

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												
Total												

Comments

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	Mushroom					1 Food
#2	Honey					1 Food
#3	Fruits					1 Food
#4	Mopane worms(madora)					1 Food
#5	Grass					2 Fodder
#6						
#7						
#8						
#9						
#10						
All other plant products						
All other animal products						
Total					–	

Name of currency	

Comments

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	47.48	46.28	45.69	45.57	45.45	45.33	45.21	45.09

Name of agency responsible	

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	-0.25	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26

Name of agency responsible	

Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	105.06	105.00	104.92	105.12	95.01	95.00	94.99	94.98

Name of agency responsible	

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	17.42	17.40	17.40	17.40	17.40	17.40	17.40	17.40

Name of agency responsible	

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	4.64	4.57	4.57	4.57	4.57	4.57	4.57	4.57

Name of agency responsible	

Sub-Indicator 5	Forest area (1000 ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area under independently verified forest management certification schemes	56.46	0.00	0.00	0.00	0.00	0.00	–	–