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Organization of the
United Nations

Global Forest Resources Assessment 2020

Report

United Republic of Tanzania

Rome, 2020



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Introduction

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Introductory text

National Context

In Tanzania forests and woodlands cover about 55% of the total land area (88,359,000 hectares). These forests and woodlands provide wildlife habitat, unique natural ecosystems and biological diversity. They also harbour important water catchments areas. These forests are however face deforestation at a rate of 469,000 hectares per annum, which results from heavy pressure from agricultural expansion, livestock grazing, wild fires, over-exploitation and unsustainable utilization of wood resources and other human activities mainly in unreserved forests.

Policies

The National Forest Programme (NFP) is an instrument meant to implement the National Forest Policy, which was approved by the Government in 1998. The policy takes cognizance of macro-economic and other sectoral policies ranging from environmental conservation to sustainable development of the land based natural resources. Major policies that have a bearing on the forest sector include the National Environmental Policy and Land Policy. The formulation of respective legislation and their operationalization will enhance sustainable forest management mainly in the general lands and cross-sectoral areas.

Justification

The National Forest Programme was developed in order to address the challenging responsibilities in the near future and to increase the forest sector's contribution to the national economy and more so in poverty reduction. Forests and trees play multiple roles in the rural life of majority of Tanzanian people especially women and marginal groups in relation to food security, rural energy supply and household subsistence. Forests are increasingly becoming important in the local and global environmental and biodiversity conservation. This programme would significantly enhance not only sustainable forest management (SFM) but also improve the design and implementation of projects and programmes which have so far been fragmented and uncoordinated.

Objectives

Recognizing the ever increasing environmental degradation and loss of forest resources, Tanzania embarked on developing a long-term National Forest Programme to implement the National Forest Policy. The objectives of the NFP development programmes are (i) sustainable supply of forest products and services ensured to meet the needs at the local and national levels; (ii) enhanced national capacity to manage and develop the forest sector in a collaborative manner; (iii) enabling legal and regulatory framework for the sector in place and (iv) increased economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade of forest products.

Development Programmes

The National Forest Programme (NFP) is based on four implementation programmes that cover both forest resources management as well as institutional and human resources development aspects. The programmes are: (i) Forest Resources Conservation and Management programme which aims at promoting gender balanced stakeholders participation in the management of natural and plantation forests, giving priority to ecosystems conservation, catchment areas and sustainable utilization of forest resources; (ii) Institutions and Human Resources Development programme which aims at strengthening institutional set up, coordination of forest management, establishing sustainable forest sector funding and improvement in research, extension services and capacity building through strengthening human resources; (iii) Legal and Regulatory Framework programme which focuses on the development of regulatory issues including the Forest Act, rules, regulations and guidelines to facilitate operations of the private sector and participatory management, and (iv) Forestry Based Industries and Sustainable Livelihoods programme which is intended to enhance forest industry development by promoting private sector investment, improving productivity and efficiency and to tap the income generation opportunities provided by non wood forest products. More information on the Tanzania National Forest Programme (NFP) can be found at the website www.nfp.co.tz However, the National Forest programme is under review during the preparation of this report.

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

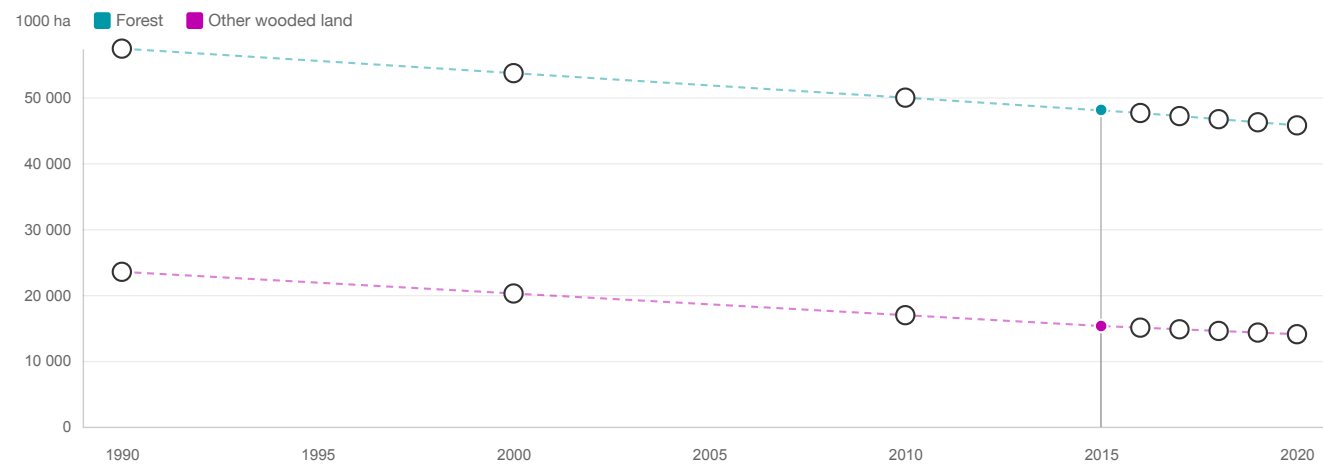
2015	References	MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.
	Methods used	National Forest Inventory
	Additional comments	NAFORMA was implemented from 2009 to 2014

Classifications and definitions

2015	National class	Definition
	FOREST	An area of land with at least 0.5 ha, with a minimum tree crown cover of 10% or with existing tree species planted or natural having the potential of attaining more than 10% crown cover, and with trees which have the potential or have reached a minimum height of 3m at maturity in situ.
	OTHER WOODED LAND	Is a piece of land not qualifying as a forest according to forest definition; it includes bush land and grassland but excludes cultivated land.
	OTHER LAND	A piece of land other than forest and other wooded land.

Original data and reclassification

2015	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	FOREST	48 090.00	100.00 %	%	%
	OTHER WOODED LAND	15 290.00	0.00 %	100.00 %	0.00 %
	OTHER LAND	29 666.00	0.00 %	0.00 %	100.00 %
	Total	93 046.00	48 090.00	15 290.00	29 666.00



FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	57 390.01	53 670.01	49 950.01	48 090.00	47 621.00	47 152.00	46 683.00	46 214.00	45 745.00
Other wooded land (a)	23 515.00	20 225.00	16 935.00	15 290.00	15 041.00	14 792.00	14 543.00	14 294.00	14 045.00
Other land (c-a-b)	7 674.99	14 684.99	21 694.99	25 200.00	25 918.00	26 636.00	27 354.00	28 072.00	28 790.00
Total land area (c)	88 580.00	88 580.00	88 580.00	88 580.00	88 580.00	88 580.00	88 580.00	88 580.00	88 580.00

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

Forest	An area of land with at least 0.5 ha, with a minimum tree crown cover of 10% or with existing tree species planted or natural having the potential of attaining more than 10% crown cover, and with trees which have the potential or have reached a minimum height of 3m at maturity in situ. However, the FAO forest definition was used to estimate forest area for the first national forest inventory in 2015.
Other wooded land	Is a piece of land not qualifying as a forest according to the forest definition; it includes bushland and and grassland and excludes cultivated land.
Other land	All land that is not classified as "Forest" or "Other wooded land".
...of which with tree cover (sub-category)	Land considered as "Other land", that is predominantly agricultural or urban lands use and has patches of tree cover that span more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity. It includes bothe forest and non-forest tree species.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.
Forest expansion	Expansion of forest on land that, until then, was not defined as forest.
...of which afforestation (sub-category)	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not defined as forest.
...of which natural expansion of forest (subcategory)	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).
Deforestation	The conversion of forest to other land use or the longterm reduction of the tree canopy cover below the minimum 10 percent threshold.
...of which human induced (sub-category)	Human induced conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold.

Reforestation	Natural regeneration or re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.
...of which artificial reforestation (subcategory)	Re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.

1b Forest characteristics

National data

Data sources

2015	References	MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.
	Methods used	National Forest Inventory
	Additional comments	NAFORMA was implemented from 2009 to 2014

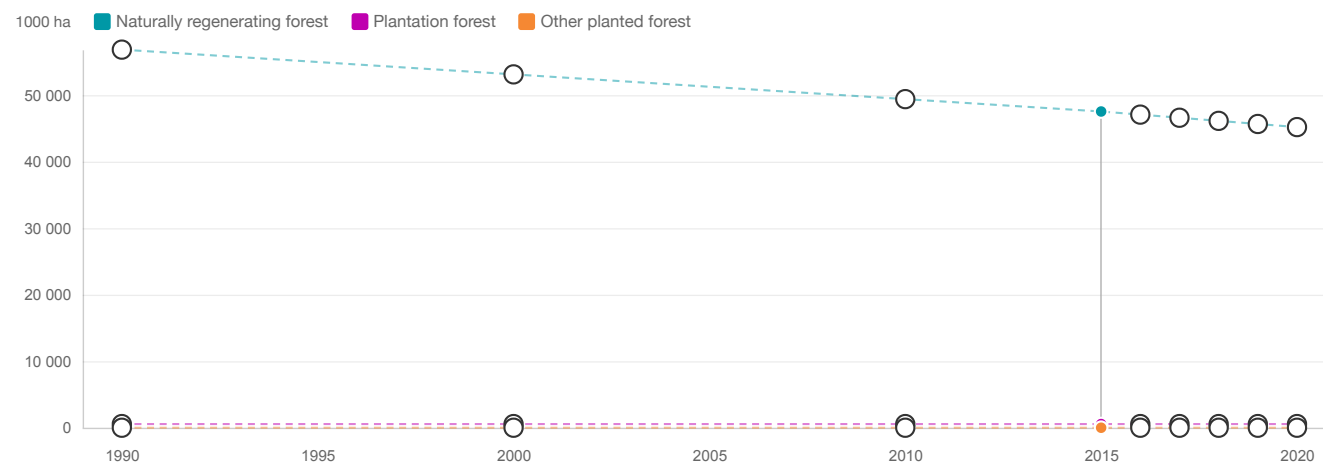
Classifications and definitions

2015	National class	Definition
	FOREST	An area of land with at least 0.5 ha, with a minimum tree crown cover of 10% or with existing tree species planted or natural having the potential of attaining more than 10% crown cover, and with trees which have the potential or have reached a minimum height of 3m at maturity in situ.
	OTHER WOODED LAND	Is a piece of land not qualifying as a forest according to forest definition; it includes bush land and grassland but excludes cultivated land.
	OTHER LAND	A piece of land other than forest and other wooded land.

Original data and reclassification

2015	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	FOREST	48 090.00	98.85 %	1.15 %	0.00 %
	Total	48 090.00	47 536.97	553.04	0.00

Plantation forest	Area (1000 ha)	...of which introduced
FOREST	553.04	100.00 %
Total	553.04	553.04



FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	56 836.97	53 116.97	49 396.97	47 536.97	47 067.97	46 598.97	46 129.97	45 660.97	45 191.97
Planted forest (b)	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04
Plantation forest	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04
...of which introduced species	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04	553.04
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (a+b)	57 390.01	53 670.01	49 950.01	48 090.00	47 621.01	47 152.01	46 683.01	46 214.01	45 745.01
Total forest area	57 390.01	53 670.01	49 950.01	48 090.00	47 621.00	47 152.00	46 683.00	46 214.00	45 745.00

Comments

The estimates presented are based on NAFORMA data. Although the area of planted forest has increased, the estimates could not be updated due to lack of reliable projection information.

1c Primary forest and special forest categories

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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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	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00
Temporarily unstocked and/or recently regenerated	0.00	0.00	0.00	0.00	0.00
Bamboos	2 450.00	2 450.00	2 450.00	2 450.00	2 450.00
Mangroves	140.00	127.00	123.00	158.10	158.10
Rubber wood	0.00	0.00	0.00	0.00	0.00

Comments

Bamboos area is estimated based on occurrence in NAFORMA plots. This is a probable area where you can find bamboo species.

Area shown in primary forest include mangroves.

1d Annual forest expansion, deforestation and net change

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Forest expansion (a)	28.00	28.00	0.00	5.00
...of which afforestation				
...of which natural expansion				
Deforestation (b)	400.00	400.00	372.00	474.00
Forest area net change (a-b)	-372.00	-372.00	-372.00	-469.00

Comments

As reported in the 2015 FRA report, the deforestation rate for the periods 1990-2000, 2000-2010 was 400,000 ha/yr. For the period 2010-2015 the rate was 372,000 ha/yr. The new deforestation rate which is now applied for the period 2015-2020 is 469,420 ha (Tanzania mainland) + 4 689 ha (Zanzibar islands) = 474 109 ha.

While the first two deforestation estimates were based on satellite imagery interpretation alone, the new deforestation estimates utilised both satellite imagery and NAFORMA ground data and hence more reliable.

These rates are already net change for naturally regenerating forests since we usually do not consider planted forests in our deforestation calculations. Therefore the last two rows should have the same values. The last row should be changed to be editable to reflect this situation.

1e Annual reforestation

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Reforestation	15.00	25.50	27.00	27.00

Comments

1f Other land with tree cover

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

National classification and definitions

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FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Palms (a)				773.90	773.90
Tree orchards (b)					
Agroforestry (c)				1 373.00	1 373.00
Trees in urban settings (d)					
Other (specify in comments) (e)					
Total (a+b+c+d+e)	–	–	–	2 146.90	2 146.90
Other land area	7 674.99	14 684.99	21 694.99	25 200.00	28 790.00

Comments

2 Forest growing stock, biomass and carbon

2a Growing stock

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

National classification and definitions

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MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

FRA categories	Growing stock m³/ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	65.10	69.10	72.57	72.57	72.57	72.57	72.57	72.57	72.57
Planted forest	55.55	60.10	61.68	61.68	61.68	61.68	61.68	61.68	61.68
...of which plantation forest	55.55	60.10	61.68	61.68	61.68	61.68	61.68	61.68	61.68
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	65.01	69.01	72.44	72.44	72.44	72.44	72.44	72.44	72.44
Other wooded land	16.00	16.00	16.09	16.09	16.09	16.09	16.09	16.09	16.09

FRA categories	Total growing stock (million m³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	3 700.09	3 670.38	3 584.74	3 449.76	3 415.72	3 381.69	3 347.65	3 313.62	3 279.58
Planted forest	30.72	33.24	34.11	34.11	34.11	34.11	34.11	34.11	34.11
...of which plantation forest	30.72	33.24	34.11	34.11	34.11	34.11	34.11	34.11	34.11
...of which other planted forest									
Forest	3 730.81	3 703.62	3 618.38	3 483.64	3 449.67	3 415.69	3 381.72	3 347.74	3 313.77
Other wooded land	376.24	323.60	272.48	246.02	242.01	238.00	234.00	229.99	225.98

Comments

Weighted mean was used for naturally regenerated forest which includes Montane humid, Lowland, Mangrove, Closed and Open woodland. The original mean values used to calculate the weighted mean volume per hectare are:

Vegetation types	Area (ha)	Volume m3/ha
Forest: Humid Montane	953,866	222.22
Forest: Lowland	1,663,340	130.86
Forest: Mangrove	158,405	82.74
Forest: Plantation	543,025	61.68
Woodland: Closed (>40%)	9,006,126	96.96
Woodland: Open (10–40%)	36,219,223	60.01

2b Growing stock composition

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Malimbwi, R.E., Eid, T., and Chamshama, S.A.O. (2018). Allometric Tree Biomass and Volume Models in Tanzania. Second Edition. E&D Vision Publishers. 148 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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					313.90	
#2 Ranked in terms of volume	Julbernardia globiflora					250.96	
#3 Ranked in terms of volume	Brachystegia boehmii					186.23	
#4 Ranked in terms of volume	Adansonia digitata					126.30	
#5 Ranked in terms of volume	Pericopsis angolensis					119.66	
#6 Ranked in terms of volume	Pseudolachnostylis maprouneifolia					106.72	
#7 Ranked in terms of volume	Brachystegia bussei					106.33	
#8 Ranked in terms of volume	Brachystegia sp.					74.89	
#9 Ranked in terms of volume	Brachystegia sp.					74.20	
#10 Ranked in terms of volume	Burkea africana					65.46	
Remaining native tree species						2 025.11	
Total volume of native tree species			–	–	–	3 449.76	–
Introduced tree species							
#1 Ranked in terms of volume	Pinus patula					18.42	

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#2 Ranked in terms of volume	Eucalyptus maidenii					3.71	
#3 Ranked in terms of volume	Acacia mearnsii					2.37	
#4 Ranked in terms of volume	Grevillea robusta					0.81	
#5 Ranked in terms of volume	Cupressus lusitanica					1.21	
Remaining introduced tree species						7.59	
Total volume of introduced tree species			–	–	–	34.11	–
Total growing stock			–	–	–	3 483.87	–

Comments

New volume equations were used to compute volume of individual tree species (Malimbwi et et., 2018)

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	48.58	48.58	48.58	48.58	48.58	48.58	48.58	48.58	48.58
Below-ground biomass	20.22	20.22	20.22	20.22	20.22	20.22	20.22	20.22	20.22
Dead wood	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94

Comments

2d Carbon stock

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Forest Reference Emission Level Submitted to UNFCCC, Dar es Salaam, Tanzania. 50 pp.

FRA categories	Forest carbon (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Carbon in above-ground biomass	24.29	24.29	24.29	24.29	24.29	24.29	24.29	24.29	24.29
Carbon in below-ground biomass	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11
Carbon in dead wood	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47
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

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Primary designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production (a)	1 960.90	1 971.80	1 971.80	1 971.80	1 971.80
Protection of soil and water (b)	9 457.70	9 457.70	9 457.70	9 457.70	9 457.70
Conservation of biodiversity (c)					
Social Services (d)					
Multiple use (e)					
Other (specify in comments) (f)					
None/unknown (g)	45 971.41	42 240.51	38 520.51	36 660.50	34 315.50
Total forest area	57 390.01	53 670.01	49 950.01	48 090.00	45 745.00

Total area with designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production	1 960.90	1 971.80	1 971.80	1 971.80	1 971.80
Protection of soil and water	9 457.70	9 457.70	9 457.70	9 457.70	9 457.70
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

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Singano, S. (2016). Verification of the extent and potential of forest plantatation in Tanzania. MSc Dissertation. Sokoine University of Agriculture. 55pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Singano, S. (2016). Verification of the extent and potential of forest plantatation in Tanzania. MSc Dissertation. Sokoine University of Agriculture. 55pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Singano, S. (2016). Verification of the extent and potential of forest plantatation in Tanzania. MSc Dissertation. Sokoine University of Agriculture. 55pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Singano, S. (2016). Verification of the extent and potential of forest plantatation in Tanzania. MSc Dissertation. Sokoine University of Agriculture. 55pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT (2016). Impact Evaluation Baseline of Project on Enhancing the Forest Nature Reserves Network for Biodiversity Conservation in Tanzania.120 pp.

Singano, S. (2016). Verification of the extent and potential of forest plantatation in Tanzania. MSc Dissertation. Sokoine University of Agriculture. 55pp.

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest area within protected areas	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00	28 508.00
Forest area with long-term forest management plan	2 130.00	2 130.00	2 130.00	2 130.00	2 130.00	2 130.00	2 130.00	2 130.00	2 130.00
...of which in protected areas	308.90	308.90	308.90	308.90	308.90	308.90	308.90	308.90	308.90

Comments

Protected areas are wildlife and forest reserves. forest with long term management plan include nature reserves and forest plantations which are owned by the government and private companies.

4 Forest ownership and management rights

4a Forest ownership

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

In Tanzania the President holds as trustee for land ownership on behalf of the people. The Land Policy of 1995, the Land Act Cap 113 [R.E. 2002] and Village Land Act Cap 114 [R.E. 2002] set out the fundamental principles guiding land rights and management. The Land Act classifies land in three categories: (1) reserved land; (2) village land; and (3) general land. The NAFORMA land ownership classification is based on the land management responsibility as follows:

- Central government land
 - Land administered by central government agency such as TFS or parastatal such as Tanzania National Parks (TANAPA);
- Local government land
 - Land administered by Local Government Authorities (LGAs) and includes forest reserves decentralized to LGAs in the 1970s;
- Village land
 - Land held and administered collectively by village residents under customary law and Village Land Act Cap 114 [R.E. 2002] and includes communal land and land held by individuals;
- Private land
 - This is a category that covers all tenure right types giving individual or collective occupancy rights within village, general or government lands. These tenure types are (1) customary right of occupancy, (2) granted right of occupancy, (3) leasehold and (4) residential licence;
- General land
 - This includes land which is not reserved, not occupied or unused village land;
- Not known
 - The ownership and management responsibility of the measured plot was not established.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Private ownership (a)	3 515.00	3 515.00	3 515.00	3 515.00
...of which owned by individuals				
...of which owned by private business entities and institutions				
...of which owned by local, tribal and indigenous communities	0.00	0.00	0.00	0.00
Public ownership (b)	1 971.80	1 971.80	1 971.80	1 971.80
Unknown/other (specify in comments) (c)	51 903.21	48 183.21	44 463.21	42 603.20
Total forest area	57 390.01	53 670.01	49 950.01	48 090.00

Comments

Some of the forests are not covered here in this ownership categories, i.e. village land forest reserves and forest on general lands

4b Holder of management rights of public forests

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Public Administration (a)	1 971.80	1 971.80	1 971.80	1 971.80
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	1 971.80	1 971.80	1 971.80	1 971.80

Comments

In Tanzania, holder of management right of public forest refer to forest under local and central government.

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	53 670.01	–	–	–	–	–	–	–	–	–	49 950.01	–	–	–	–	48 090.00	47 621.00	47 152.00

Comments

No information at national level

5b Area affected by fire

National Data

Data sources + type of data source eg NFI, etc

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.MNRT., (2015).

URT. (2015). Annual Burnt Area Report. Tanzania Forestry Research Institute (TAFORI). Morogoro. 15 pp

URT. (2016). Annual Burnt Area Report. Tanzania Forestry Research Institute (TAFORI). Morogoro. 12 pp

URT. (2017). Annual Burnt Area Report. Tanzania Forestry Research Institute (TAFORI). Morogoro. 12 pp

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Analysis and processing of national data

Estimation and forecasting

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

Reclassification into FRA 2020 categories

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

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				12 549.00	12 874.00	12 174.00	9 139.00	10 840.00	10 831.00	11 042.00	12 019.00	9 036.00	9 368.00	9 723.30	9 723.30	9 723.30	10 195.50	10 190.30
...of which on forest				746.80	739.50	928.30	1 609.30	953.90	786.40	916.30	9 922.00	628.80	587.30	587.30	587.30	587.30	587.30	587.30

Comments

5c Degraded forest

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

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

URT. (1998). National Forest Policy. Dar es Salaam. Government Printer. 59 pp.

URT. (2002). Forest Act No 14 of 2002. Dar es Salaam. Government Printer. 127 pp.

Zanzibar Revolutionary Government. (1999). National Forestry Policy for Zanzibar. Ministry of Agriculture, Livestock and Natural Resources. Zanzibar. 20 pp.

Zanzibar Revolutionary Government. (1996). The Forest Resources Management and Conservation Act No. 10 of 1996. Ministry of Agriculture, Livestock, and Natural Resources. Zanzibar. 98 pp.

National classification and definitions

URT. (1998). National Forest Policy. Dar es Salaam. Government Printer. 59 pp.

URT. (2002). Forest Act No 14 of 2002. Dar es Salaam. Government Printer. 127 pp.

Zanzibar Revolutionary Government. (1999). National Forestry Policy for Zanzibar. Ministry of Agriculture, Livestock and Natural Resources. Zanzibar. 20 pp.

Zanzibar Revolutionary Government. (1996). The Forest Resources Management and Conservation Act No. 10 of 1996. Ministry of Agriculture, Livestock, and Natural Resources. Zanzibar. 98 pp.

Original data

URT. (1998). National Forest Policy. Dar es Salaam. Government Printer. 59 pp.

URT. (2002). Forest Act No 14 of 2002. Dar es Salaam. Government Printer. 127 pp.

Zanzibar Revolutionary Government. (1999). National Forestry Policy for Zanzibar. Ministry of Agriculture, Livestock and Natural Resources. Zanzibar. 20 pp.

Zanzibar Revolutionary Government. (1996). The Forest Resources Management and Conservation Act No. 10 of 1996. Ministry of Agriculture, Livestock, and Natural Resources. Zanzibar. 98 pp.

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

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

National classification and definitions

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

Original data

MNRT., (2015). National Forest Resources Monitoring and Assessment (NAFORMA) main results. Tanzania Forest Services, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 106 pp.

URT., (2017). Tanzania's Forest Reference Emission Level submission to the UNFCCC. 50pp.

FRA 2020 categories	Forest area (1000 ha)					
	Applicable?	1990	2000	2010	2015	2020
Area of permanent forest estate	Yes	26 236.03	26 236.03	26 236.03	26 236.03	26 236.03

Comments

Area of permanent foret estate includes conservation areas (national parks, game reserves, nature forest reserves and forest reserves (productive and protective))

7 Employment, education and NWFP

7a Employment in forestry and logging

National Data

Data sources + type of data source eg NFI, etc

Government mistristries (MNRT, PORALG,VPO), NGOs, private companies

National classification and definitions

Government mistristries (MNRT, PORALG,VPO), NGOs, private companies

Original data

Government mistristries (MNRT, PORALG,VPO), NGOs, private companies

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	5.00			5.00			5.00			6.00		
...of which silviculture and other forestry activities	0.85			0.85			0.85			1.85		
...of which logging	3.15			3.15			3.15			3.15		
...of which gathering of non wood forest products	0.60			0.60			0.60			0.60		
...of which support services to forestry	0.40			0.40			0.40			0.40		

Comments

Statistics presented exclude casual labourers involved in silvicultural and logging operations

7b Graduation of students in forest-related education

National Data

Data sources + type of data source eg NFI, etc

College of Forestry Wildlife and Tourism (2017). Prospective Campus College of Forestry Wildlife and Tourism. 1st five-year college strategic plan 2016-2021. 60 pp.

National classification and definitions

College of Forestry Wildlife and Tourism (2017). Prospective Campus College of Forestry Wildlife and Tourism. 1st five-year college strategic plan 2016-2021. 60 pp.

Original data

College of Forestry Wildlife and Tourism (2017). Prospective Campus College of Forestry Wildlife and Tourism. 1st five-year college strategic plan 2016-2021. 60 pp.

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							17.00	3.00	14.00	13.00	2.00	11.00
Master's degree							173.00	40.00	136.00	186.00	52.00	134.00
Bachelor's degree							773.00	154.00	619.00	1 030.00	348.00	682.00
Technician certificate / diploma	106.00	13.00	93.00	22.00	4.00	18.00	90.00	27.00	63.00	221.00	68.00	153.00
Total												

Comments

For degrees level a statistics start in 2003 while for certificate and diploma courses start in 1990

7c Non wood forest products removals and value 2015

National Data

Data sources + type of data source eg NFI, etc

Muruke, M. H. (2014). Assessment of quality of Tanzanian honey based on physicochemical properties. Food Science Quality Management. 33:61-72

URT (2018). National Environment Statistics Report, Tanzania Mainland. 188pp

National classification and definitions

Muruke, M. H. (2014). Assessment of quality of Tanzanian honey based on physicochemical properties. Food Science Quality Management. 33:61-72

URT (2018). National Environment Statistics Report, Tanzania Mainland. 188pp

Original data

Muruke, M. H. (2014). Assessment of quality of Tanzanian honey based on physicochemical properties. Food Science Quality Management. 33:61-72

URT (2018). National Environment Statistics Report, Tanzania Mainland. 188pp

	Name of NWFP product	Key species	Quantity	Unit	Value (1000 local currency)	NWFP category
#1	Honey		152 600	Kg	574	1 Food
#2	Wax		220 220	Kg	1 923	3 Raw material for medicine and aromatic products
#3	Sandalwood oil		7 700	Kg	2 428	3 Raw material for medicine and aromatic products
#4	Sandalwood dust		158 124	Kg	87	3 Raw material for medicine and aromatic products
#5	Gum arabica		300 003	Kg	245	3 Raw material for medicine and aromatic products
#6	Wattle bark		2 056 612	Kg	3 885	4 Raw material for colorants and dyes
#7	Carvings		16 537	Kg	81	5 Raw material for utensils handicrafts construction
#8	Baobab		15 000	Kg	30	3 Raw material for medicine and aromatic products
#9						
#10						
All other plant products						
All other animal products						
Total					9 253	

Name of currency	USD
------------------	-----

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	60.59	56.39	54.29	53.76	53.23	52.70	52.17	51.64

Name of agency responsible	TFS/MNRT
----------------------------	----------

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	-0.72	-0.76	-0.98	-0.99	-1.00	-1.01	-1.03

Name of agency responsible	TFS/MNRT
----------------------------	----------

Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	48.58	48.58	48.58	48.58	48.58	48.58	48.58	48.58

Name of agency responsible	TFS/MNRT
----------------------------	----------

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	59.28	59.28	59.28	59.28	59.28	59.28	59.28	59.28

Name of agency responsible	TFS/MNRT
----------------------------	----------

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	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43

Name of agency responsible	TFS/MNRT
----------------------------	----------

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	20.80	142.73	172.05	183.70	221.75	—	—