



Food and Agriculture
Organization of the
United Nations

Global Forest Resources Assessment 2020

Desk Study

British Virgin Islands

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

Introductory text

No official report has been received from British Virgin Islands. This report is the result of a desk study prepared by the FRA secretariat in Rome, which summarizes existing available information using the established format for FRA 2020 country reports.

The British Virgin Islands is a British Overseas Territory; it is located in the northeastern Caribbean to the east of Puerto Rico and the U.S. Virgin Islands. Part of the Virgin Islands archipelago, the territory covers a land area of 153.6 km², which comprises some 50 islands (around 15 of them inhabited), cays, and islets. Queen Elizabeth II is the Head of State and is represented by the Governor, who appoints the Premier as the head of Government. The House of Assembly is the democratically elected legislative body. The capital is Road Town, located on Tortola, the largest island; 80% of the population lives in the capital (Caribbean countries Health care system profiles handbook, 2015).

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National Data

Data sources + type of data source eg NFI, etc

Caribbean Conservation Association 1980. Preliminary Data areas British Virgin Islands: Toortula, Virgin Gorda & Anegada. Caribbean Conservation Association. University of Michigan, USA.

Blok-Meevwig, J. 1990. Mangrove system of the British Virgin Islands: Resource Mapping and Assignment to protection Categories. Conservation & Fisheries Department, Ministry of Natural Resources & Labour, British Virgin Islands, Technical Report No. 5; 45pp.

British Virgin Islands Government. 2001 Use of the coastal zones and seabeds

Spalding M., Kainuma M. and Collins L., 2010. World Atlas of Mangroves Published with ISME, ITTO and project partners FAO, UNESCO-MAB, UNEP-WCMC and UNU-INWEH <https://doi.org/10.4324/9781849776608>

National classification and definitions

National class	Definition
Cactus/scrub	A dry evergreen scrub with cacti is typical of steep slopes, cliffs, and headlands overlooking the sea. Typically it consists of a low, open growth of small-leaved, prickly bushes, bare soil exposed between them, scattered with tall columnar cacti, agaves, and prickly pears. Nopalea dejecta, an arborescent species, is common at West End, Tortola, and Opuntia dillenii is general.
Dry woodland	The original deciduous seasonal forest of these islands in its original state probably consisted of a two-storied forest, but all the original forests of this type have been very thoroughly cut over and reduced to a much smaller and degraded bush. When land is abandoned by the shifting cultivator and reverts to bush, an invasive thicket fills up between these standard trees. At a later stage, young trees and shrubs proper to the deciduous seasonal forest join the succession, but the selective cutting of the peasantry has gradually favoured an abnormal preponderance of the worthless Pisonia and Bursera. Buceras bucida (gigri) is now rare but was probably once common along low ground
Mangroves	Probably found in the moister places of the woodland: Andira inermis (angelin) and Hura crepitans (sandbox) are present.
Moist Forest	There are some small swamps of stunted mangrove in various places around the coasts.
Rain Forest	An evergreen forest is found but reduced and xerophytic, not a true rain forest. It is found mainly on Sage Mountain, Tortola. Xerophytic Rain Forest is a low forest only 12-18 m high. Occasional trees reach considerable thicknesses, but for most part the trees are small and pole sized. The most abundant tree species are laticiferous or contain essential oils: they are evergreen with hard, shiny, thickly cutinized leaves, simple, and mesophyllous in size. Many of them have a particular type of bark, peeling off in sheets or flakes. The forest is dense and ground vegetation is sparse. Lianes and epiphytes are not much in evidence. Manilkara bidentata is clearly the dominant tree.

Original data

1980	Area (ha)			
National Classes	Tortola Island	Virgin Gorda Island	Anegada Island	TOTAL
Rain Forest	57			57
Moist Forest	378			378
Dry woodland	851	1482	315	2648
Cactus Scrub	567	865	252	1684
TOTAL	1890	2470	630	4990

1990

Mangroves = 627 ha

2001

Mangroves = 587 ha

The 1980 data refers only to the three biggest islands: Tortola, Virgin Gorda and Anegada. However, these data are the only available for non-mangrove vegetation and has been assumed to represent all islands and to be constant for all reporting years.

The 1990 data on mangroves refers to seven islands: Tortola, Virgin Gorda, Anegada, Great Camanoë, Jost van Dyke, Sandy Cay and Beef Island.

For the 2001 estimate of mangroves, there is no information available about what islands were covered, but it has been assumed that they were the same as for the 1990 estimate.

The area of mangroves for 2000 was estimated by linear inter- and extrapolation using the available data for 1990 and 2001 as follows:

	1990	2000	2001
Mangrove area (ha)	627	591	587

Same figure as of 2001 has been repeated for the remaining reporting years. From 2010 ongoing the data used refer to Spalding M., Kainuma M. and Collins L., 2010. World Atlas of Mangroves

Mangroves area (km²) for 2010: 5,87

Analysis and processing of national data

Estimation and forecasting

Due to lack of other information the estimate of forest area as reported in 1980 (3083 hectares) was added to the mangrove estimate for each reporting year to obtain the total forest area.

The area of mangroves for 2000 was estimated by linear inter- and extrapolation using the available data for 1990 and 2001 as follows:

	1990	2000	2001
Mangrove area (ha)	627	591	587

The same figure as of 2001 has been repeated for the remaining reporting year. The area of other wooded land is assumed to be constant for all reporting years.

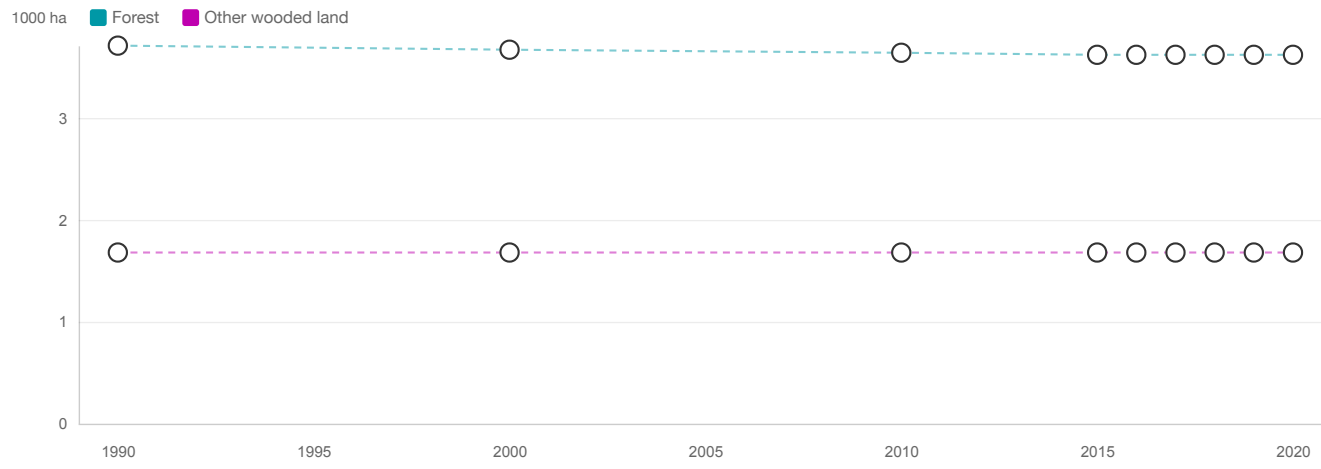
Reclassification into FRA 2020 categories

National Classes	FRA Classification
Rain Forest	100% Forest
Moist Forest	100% Forest
Dry woodland	100% Forest
Cactus Scrub	100% Other Wooded Land
Mangroves	100% Forest

This gives the following reclassified data for 1980, excluding mangroves:

Forest: 3083 hectares

Other wooded land: 1684 hectares



FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	3.71	3.67	3.64	3.62	3.62	3.62	3.62	3.62	3.62
Other wooded land (a)	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
Other land (c-a-b)	9.61	9.65	9.68	9.70	9.70	9.70	9.70	9.70	9.70
Total land area (c)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00

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 trend only reflect the trend in mangroves. For the other types of forest no trend data is available. The original data for this table (except for mangroves) are from 1980 and cover only three islands, except for the estimates of mangroves which cover six islands and date from 1990 and 2001.

1b Forest characteristics

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	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)									
Planted forest (b)	-	-	-	-	-	-	-	-	-
Plantation forest									
...of which introduced species									
Other planted forest									
Total (a+b)	-	-	-	-	-	-	-	-	-
Total forest area	3.71	3.67	3.64	3.62	3.62	3.62	3.62	3.62	3.62

Comments

1c Primary forest and special forest categories

National Data

Data sources + type of data source eg NFI, etc

Blok-Meevwig, J. 1990. Mangrove system of the British Virgin Islands: Resource Mapping and Assignment to protection Categories. Conservation & Fisheries Department, Ministry of Natural Resources & Labour, British Virgin Islands, Technical Report No. 5; 45pp.

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National classification and definitions

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Original data

1990

Mangroves = 627 ha

2001

Mangroves = 587 ha

Analysis and processing of national data

Estimation and forecasting

The 1990 data on mangroves refers to seven islands: Tortola, Virgin Gorda, Anegada, Great Camanoë, Jost van Dyke, Sandy Cay and Beef Island.

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	1990	2000	2001
Mangrove area (ha)	627	591	587

The same figure as of 2001 has been repeated for the remaining reporting year. The area of other wooded land is assumed to be constant for all reporting years.

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	0.63	0.59	0.59	0.59	0.59
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

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Original data

-

Analysis and processing of national data

Estimation and forecasting

-

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)				
...of which afforestation				
...of which natural expansion				
Deforestation (b)				
Forest area net change (a-b)	-0.00	-0.00	-0.00	0.00

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

1f Other land with tree cover

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

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Original data

-

Analysis and processing of national data

Estimation and forecasting

-

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	9.61	9.65	9.68	9.70	9.70

Comments

2 Forest growing stock, biomass and carbon

2a Growing stock

National Data

Data sources + type of data source eg NFI, etc

Expert estimate based on FRA working paper 69. *Wood volume and woody biomass review of FRA2000 estimates. Volume II.*

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

Since no data was available for British Virgin islands, the average volume per ha calculated for Antigua and Barbuda as part of the review of volume and biomass estimates carried out for FRA 2000 was used to fill in table 2a. The original calculations for Antigua and BARbuda were based on the report: **ITTO**. 2000. *Antigua and Barbuda Country Report*. International Institute of tropical forest. The document provided an estimated total aboveground woody biomass. (210 t/ha) The unknown value of BEF necessary to transform biomass in volume was extrapolated throughout the common trend resulting from the relation between BEF and total biomass of the others Latin American countries (Biomass expansion factor 2.84 and wood density 0.6). The resulting volume per ha was equal to 123 m³/ha.

Reclassification into FRA 2020 categories

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FRA categories	Growing stock m ³ /ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest									
Planted forest									
...of which plantation forest									
...of which other planted forest									
Forest	123.00	123.00	123.00	123.00	123.00	123.00	123.00	123.00	123.00
Other wooded land									

FRA categories	Total growing stock (million m ³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest									
Planted forest									
...of which plantation forest									
...of which other planted forest									
Forest	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
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

-

Reclassification into FRA 2020 categories

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FRA categories	Scientific name	Common name	Growing stock in forest (million m ³ 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

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

Expert estimate based on FRA working paper 69. *Wood volume and woody biomass review of FRA2000 estimates. Volume II.*

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

Since no data was available for British Virgin Islands, the average biomass per ha calculated for Antigua and Barbuda as part of the review of volume and biomass estimates carried out for FRA 2000 was used to fill in table 2c. The original calculations for Antigua and Barbuda were based on the report: **ITTO**. 2000. *Antigua and Barbuda Country Report*. International Institute of tropical forest. The document provided an estimated total aboveground woody biomass (210 t/ha).

A ratio equal to 0.28 (from IPCC guidelines) was applied to the above ground biomass to calculate the belowground biomass.

Reclassification into FRA 2020 categories

-

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	210.00	210.00	210.00	210.00	210.00	210.00	210.00	210.00	210.00
Below-ground biomass	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00
Dead wood									

Comments

2d Carbon stock

National Data

Data sources + type of data source eg NFI, etc

Expert estimate

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

IPCC default value 0.47 applied to the biomass data of 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	98.70	98.70	98.70	98.70	98.70	98.70	98.70	98.70	98.70	98.70
Carbon in below-ground biomass	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73
Carbon in dead wood										
Carbon in litter										
Soil carbon										

Soil depth (cm) used for soil carbon estimates	
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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

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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)	3.71	3.67	3.64	3.62	3.62
Total forest area	3.71	3.67	3.64	3.62	3.62

Total area with designated management objective

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

Comments

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

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Analysis and processing of national data

Estimation and forecasting

-

Reclassification into FRA 2020 categories

-

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

Comments

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	3.71	3.67	3.64	3.62

Comments

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

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	3.67	-	-	-	-	-	-	-	-	-	3.64	-	-	-	-	3.62	3.62	3.62

Comments

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

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

-

National classification and definitions

-

Original data

-

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

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						

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												
...of which silviculture and other forestry activities												
...of which logging												
...of which gathering of non wood forest products												
...of which support services to forestry												

Comments

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						
#2						
#3						
#4						
#5						
#6						
#7						
#8						
#9						
#10						
All other plant products						
All other animal products						
Total					-	

Name of currency	
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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	24.47	24.27	24.13	24.13	24.13	24.13	24.13	24.13

Name of agency responsible	
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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	-0.08	-0.11	0.00	0.00	0.00	0.00	0.00

Name of agency responsible	
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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	210.00	210.00	210.00	210.00	210.00	210.00	210.00	210.00

Name of agency responsible	
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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

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

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	-	-