



Forestry Department

Food and Agriculture Organization of the United Nations

**GLOBAL FOREST RESOURCES
ASSESSMENT**

COUNTRY REPORTS

GUYANA

FRA2010/088
Rome, 2010



The Forest Resources Assessment Programme

Sustainably managed forests have multiple environmental and socio-economic functions important at the global, national and local scales, and play a vital part in sustainable development. Reliable and up-to-date information on the state of forest resources - not only on area and area change, but also on such variables as growing stock, wood and non-wood products, carbon, protected areas, use of forests for recreation and other services, biological diversity and forests' contribution to national economies - is crucial to support decision-making for policies and programmes in forestry and sustainable development at all levels.

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Forest Resources Assessment Programme. This country report forms part of the Global Forest Resources Assessment 2010 (FRA 2010).

The reporting framework for FRA 2010 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes variables related to the extent, condition, uses and values of forest resources, as well as the policy, legal and institutional framework related to forests. More information on the FRA 2010 process and the results - including all the country reports - is available on the FRA Web site (www.fao.org/forestry/fra).

The Global Forest Resources Assessment process is coordinated by the Forestry Department at FAO headquarters in Rome. The contact person for matters related to FRA 2010 is:

Mette Løyche Wilkie
Senior Forestry Officer
FAO Forestry Department
Viale delle Terme di Caracalla
Rome 00153, Italy

E-mail: Mette.LoycheWilkie@fao.org

Readers can also use the following e-mail address: fra@fao.org

DISCLAIMER

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The Global Forest Resources Assessment Country Report Series is designed to document and make available the information forming the basis for the FRA reports. The Country Reports have been compiled by officially nominated country correspondents in collaboration with FAO staff. Prior to finalisation, these reports were subject to validation by forestry authorities in the respective countries.

Contents

1	TABLE T1 – EXTENT OF FOREST AND OTHER WOODED LAND.....	5
2	TABLE T2 – FOREST OWNERSHIP AND MANAGEMENT RIGHTS.....	9
3	TABLE T3 – FOREST DESIGNATION AND MANAGEMENT.....	13
4	TABLE T4 – FOREST CHARACTERISTICS.....	16
5	TABLE T5 – FOREST ESTABLISHMENT AND REFORESTATION.....	18
6	TABLE T6 – GROWING STOCK.....	20
7	TABLE T7 – BIOMASS STOCK.....	23
8	TABLE T8 – CARBON STOCK.....	25
9	TABLE T9 – FOREST FIRES.....	27
10	TABLE T10 – OTHER DISTURBANCES AFFECTING FOREST HEALTH AND VITALITY.....	27
11	TABLE T11 – WOOD REMOVALS AND VALUE OF REMOVALS.....	28
12	TABLE T12 – NON-WOOD FOREST PRODUCTS REMOVALS AND VALUE OF REMOVALS...	30
13	TABLE T13 – EMPLOYMENT.....	32
14	TABLE T14 – POLICY AND LEGAL FRAMEWORK.....	34
15	TABLE T15 – INSTITUTIONAL FRAMEWORK.....	36
16	TABLE T16 – EDUCATION AND RESEARCH.....	38
17	TABLE T17 – PUBLIC REVENUE COLLECTION AND EXPENDITURE.....	40

Report preparation and contact persons

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

Name (FAMILY NAME, First name)	Institution / address	E-mail	Fax	Tables
Edward Goberdhan	Guyana Forestry Commission, 1 Water Street, Kingston, Georgetown, GUYANA.	finance@forestry.gov.gy	592 226 8956	Inputs made in all tables
Pradeepa Bholanath	Guyana Forestry Commission, 1 Water Street, Kingston, Georgetown, GUYANA.	Project.coordinator@forestry.gov.gy ; economist_pradeepa@yahoo.com	592 226 8956	Inputs made in all tables
Anna Mohase	Guyana Forestry Commission, 1 Water Street, Kingston, Georgetown, GUYANA.	a_mohase@yahoo.com	592 226 8956	Inputs made in all tables
James Singh	Guyana Forestry Commission, 1 Water Street, Kingston, Georgetown, GUYANA.	commissioner@forestry.gov.gy	592 226 8956	Inputs made in all tables

1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2010 Categories and definitions

Category	Definition
Forest	Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds <i>in situ</i> . It does not include land that is predominantly under agricultural or urban land use.
Other wooded land	Land not classified as “Forest”, spanning more than 0.5 hectares; with trees higher than 5 meters and a canopy cover of 5-10 percent, or trees able to reach these thresholds <i>in situ</i> ; or with a combined cover of shrubs, bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.
Other land	All land that is not classified as “Forest” or “Other wooded land”.
Other land with tree cover (Subordinated to “Other land”)	Land classified as “Other land”, spanning 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.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.

1.2 National data

1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

1.2.2 Classification and definitions

National class	Definition
Tropical high forest	Includes mixed forest, montane forest, dry evergreen forest.
Mixed Forest	Most common type of forest, found from the North – West to the South – East, and have a high abundance of endemic and commercial timber species.
Montane Forest	Includes sub-montane, and upper mountain forest. Description is presented below. Submontane forest from 500-1500m and montane forest above 1500m. These areas were obtained by intersecting the vegetation map with altitudes obtained from a digital elevation model of Guyana
Dry Evergreen	This forest type occupies the leached white sand belt. Dry evergreen forest on bleached white sands (albic Arenosols) occurs from the Pakaraima escarpment, through central Guyana and northern Suriname into a small narrow portion of French Guiana. <i>Eperua falcata</i> and <i>E. grandiflora</i> are strongly dominant and may form, alone or together, more than 60% of the canopy individuals. Common other species in the canopy layer are <i>Catostemma fragrans</i> , <i>C. altsonii</i> , <i>Licania buxifolia</i> , <i>Talisia squarrosa</i> ,

	<i>Ormosia coutinhoi</i> , <i>Eschweilera corrugata</i> , <i>Aspidosperma excelsum</i> , <i>Terminalia amazonia</i> , <i>Chamaecrista adiantifolia</i> , <i>Chamaecrista apocouita</i> , <i>Swartzia</i> spp., <i>Dicymbe altsonii</i> (west Guyana only), <i>D. corymbosa</i> (ibid.), <i>Manilkara bidentata</i> (Pomeroon-Waini waterdivide) and <i>Pouteria</i> .
Other Swamps and Marsh Forest	In permanently flooded, flat plains in the present coastal zone a low swamp forest is found. Characteristic species are <i>Symphonia globulifera</i> , <i>Tabebuia insignis/fluviatilis</i> , <i>Pterocarpus officinalis</i> and <i>Euterpe oleracea</i> . Species that can become locally dominant in this forest type in Guyana are <i>Pentaclethra macroloba</i> , <i>Vatairea guianensis</i> , <i>Pterocarpus officinalis</i> and <i>Virola surinamensis</i> . <i>Manicaria saccifera</i> is commonly found as a narrow belt along rivers. More inland the duration of flooding is less pronounced and forest composition is slightly different. Common species here are <i>Symphonia globulifera</i> , <i>Virola surinamensis</i> , <i>Iryanthera</i> spp., <i>Pterocarpus officinalis</i> , <i>Mora excelsa</i> , <i>Pachira aquatica</i> , <i>Manicaria saccifera</i> and <i>Euterpe oleracea</i> .
Forest Land	No definition available
Mangrove	Mangrove vegetation primarily comprises of trees and shrubs, with a limited number of palms and lianas (Evans, 1998). There are three main mangrove species occurring in Guyana. These are <i>Avicennia germinans</i> , <i>Rhizophora mangle</i> and <i>Laguncularia racemosa</i> (Hussein, 1995).
Savannah	Dry on white sand was classified as muri scrub/grassland, dry savannah on other soil as (intermediate) savannah, wet savannah on peat was classified as open coastal swamp, on white sand as wet savannah/muri scrub on white sand, the other as open swamp. In areas where fires are very regular or in flood-prone areas Dakama forest degrades into Muri-scrub, dominated by <i>Humiria balsamifera</i> . Other common species in this scrub are <i>Swartzia bannia</i> , <i>Clusia fockeana</i> , <i>Licania incana</i> , <i>Bombax flaviflorum</i> , <i>Ocotea schomburgkiana</i> , <i>Trattinickia burserifolia</i> , <i>Ternstroemia punctata</i> and <i>Byrsonima crassifolia</i> .

National class	Definition
<i>Submontane forests of the Pakaraima uplands</i>	Submontane forests, from 500 – 1500m, are fairly similar in composition to the lowland forests surrounding them, with species from <i>Dicymbe</i> , <i>Licania</i> , <i>Eschweilera</i> , <i>Mora</i> , <i>Alexa</i> being common to dominant. On white sands <i>Dicymbe</i> , <i>Dimorphandra</i> , <i>Eperua</i> and <i>Micrandra</i> are the most characteristic genera. Dry submontane forest is characterised by <i>Dicymbe jenmanii</i> (endemic to the Kaieteur region), <i>Moronobea jenmanii</i> , <i>Humiria balsamifera</i> , <i>Chrysophyllum beardii</i> , <i>Tabebuia</i> spp., <i>Anthodiscus obovatus</i> , <i>Saccoglottis</i> , <i>Dimorphandra cuprea</i> and <i>Clusia</i> spp.
<i>Upper montane forests of the Pakaraima highlands</i>	Upper montane forests (1500-2000m) are only found on the high table mountains, such as Mts. Roraima, Ayanganna and Wokomung. Typical highland genera such as <i>Bonnetia tepuiensis</i> , <i>Schefflera</i> , <i>Podocarpus</i> , <i>Magnolia</i> and <i>Weinmannia</i> are found here. Low scrubs with Melastomataceae, Rubiaceae, <i>Ilex</i> and <i>Podocarpus steyermarkii</i> are also expected.
Submontane forests of south Guyana <i>Submontane forest of south Guyana</i>	Submontane forest is found in the Acarai Mts from 600-800 m. The forest is quite similar to the forest in the Kanuku Mts. with <i>Centrolobium</i> , <i>Cordia</i> , <i>Peltogyne</i> , <i>Vitex</i> , <i>Inga</i> , <i>Protium</i> , <i>Tetragastris</i> , <i>Parkia</i> , <i>Pseudopiptadenia</i> , <i>Spondias</i> and <i>Genipa</i> . Forests on the mountain tops are dominated by Myrtaceae and <i>Clusia</i> on Sierra do Acarai

1.2.3 Original data

Land Use Figures for Guyana, 1000 ha

	1999	1999 1000 ha	FRA Class
Land Use	Area by sub - category	Category total	
Cultivated, settlement and deforested areas		900	other land
Tropical High Forest	16,937	16,937	forest
Mangrove Forest	81	81	forest
Savannah and Scrub	3,580	3,580	other wooded land
Total forest cover of which State Forest	13,678	20,598	
Other forest land	6,920		
Total land Area		21,497	

1.3 Analysis and processing of national data

1.3.1 Reclassification into FRA 2010 categories

National classes	FRA classes
Cultivated, settlement and deforested areas	other land
Tropical High Forest	forest
Mangrove Forest	forest
Savannah and Scrub	other wooded land

Note that inland water is included in the above categories, mainly the forest category. The forest area has therefore been estimated as the sum of the two forest categories in the table above minus the inland water area according to FAOSTAT (1 812 000 hectares), giving a total forest area of 15 205 000 hectares.

1.3.2 Estimation and forecasting

The 1999 figures were used for all reporting years.

1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	15 205	15 205	15 205	15 205
Other wooded land	3 580	3 580	3 580	3 580
Other land	900	900	900	900
...of which with tree cover	n.a	n.a	n.a	n.a
Inland water bodies	1 812	1 812	1 812	1 812
TOTAL	21 497	21 497	21 497	21 497

1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		
Other wooded land		
Other land		
Other land with tree cover		
Inland water bodies		

Other general comments to the table
There is no distinction made with respect to inland water bodies. This figure was included in total forested area and was adjusted using the FAOSTATS.

Expected year for completion of ongoing/planned <u>national forest inventory and/or RS survey / mapping</u>	
Field inventory	
Remote sensing survey / mapping	

2 Table T2 – Forest ownership and management rights

2.1 FRA 2010 Categories and definitions

Category	Definition
Public ownership	Forest owned by the State; or administrative units of the public administration; or by institutions or corporations owned by the public administration.
Private ownership	Forest owned by individuals, families, communities, private co-operatives, corporations and other business entities, private religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
Individuals (<i>sub-category of Private ownership</i>)	Forest owned by individuals and families.
Private business entities and institutions (<i>sub-category of Private ownership</i>)	Forest owned by private corporations, co-operatives, companies and other business entities, as well as private non-profit organizations such as NGOs, nature conservation associations, and private religious and educational institutions, etc.
Local communities (<i>sub-category of Private ownership</i>)	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area. The community members are co-owners that share exclusive rights and duties, and benefits contribute to the community development.
Indigenous / tribal communities (<i>sub-category of Private ownership</i>)	Forest owned by communities of indigenous or tribal people.
Other types of ownership	Other kind of ownership arrangements not covered by the categories above. Also includes areas where ownership is unclear or disputed.
Categories related to the holder of management rights of public forest resources	
Public Administration	The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.
Individuals/households	Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.
Private institutions	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities, private co-operatives, private non-profit institutions and associations, etc., through long-term leases or management agreements.
Communities	Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.
Other form of management rights	Forests for which the transfer of management rights does not belong to any of the categories mentioned above.

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

2.2.2 Classification and definitions

National class	Definition
Private Ownership	Includes titled and untitled Amerindian Lands
State Land	Refers land under the management and control of the Government of Guyana.
Other Forested Land	Refers to land outside of the above two categories.

2.2.3 Original data

Summary of State Forest Allocations

as at June 30, 2007

Classification	Count	Area (Hectares)	% Area Type	% Total Allocation	% State Forest
Production Area Allocations					
State Forest Permissions (SFP)	299	863,750	12.5%	10.3%	6.3%
Wood Cutting Lease (WCL)	3	295,610	4.3%	3.5%	2.2%
Timber Sales Agreement (TSA)	27	4,492,366	64.8%	53.4%	32.8%
SFP Conversion Areas	27	540,481	7.8%	6.4%	4.0%
State Forest Exploratory Permit (SFEP)	4	737,264	10.6%	8.8%	5.4%
Total Production Area Allocations	360	6,929,471	100.0%	82.3%	50.7%
Other Land Areas	15	1,485,694	100.0%	17.7%	10.9%
Total Forests Allocated	375	8,415,165		100.0%	61.5%
Unallocated Forests		5,263,451	38.5%		38.5%
Total State Forests		13,678,616			100.0%

2.3 Analysis and processing of national data

2.3.1 Calibration

The total area of state forests in the table above is before adjusting for inland water included in the forest area. Using the relation between total forest area excluding inland water and total forest area including inland water in table T1, we get a calibration factor of 0.8935245. The total area of State forest has thereby been adjusted to 12 222 179 hectares. The same calibration factor was also applied to the different production area allocations in the table above.

2.3.2 Estimation and forecasting

The 2007 figures have been used for 2005. For earlier years no information is available.

2.3.3 Reclassification into FRA 2010 categories

Remaining forest area that is not State Forest has been classified as private land. It includes both Gazetted Amerindian Lands and forest on private land.

For table T2b

Timber sales agreements are granted for up to 25 years:	Public administration
Wood cutting lease is granted for up to 10 years:	Public administration
State Forest Permission:	Public administration
SPF conversion areas:	Public administration
State Forest Exploratory Permit:	Public Administration

2.4 Data for Table T2

Table 2a - Forest ownership

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	n.d.	n.d.	12222
Private ownership	n.d.	n.d.	2983
...of which owned by individuals	n.d.	n.d.	n.d.
...of which owned by private business entities and institutions	n.d.	n.d.	n.d.
...of which owned by local communities	n.d.	n.d.	n.d.
...of which owned by indigenous / tribal communities	n.d.	n.d.	n.d.
Other types of ownership	n.d.	n.d.	0
TOTAL	15 205	15 205	15 205

Note: If other types of ownership is reported, please specify details in comment to the table.

Does ownership of trees coincide with ownership of the land on which they are situated?		Yes
	√	No
If No above, please describe below how the two differ:		
Harvesting of timber is carried out mainly on State Forest. Leases are given on different area sizes to concessionaires with the understanding that permission is only granted for harvested of timber and that at the end of the lease period the land reverts back to the State.		
Additionally, harvesting permits are also issued by the GFC for privately owned lands with forests and titled Amerindian Land. In this situation both the land and trees are privately owned.		

Table 2b - Holder of management rights of public forests

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration	n.d.	n.d.	12 222
Individuals	n.d.	n.d.	0
Private corporations and institutions	n.d.	n.d.	0
Communities	n.d.	n.d.	0
Other	n.d.	n.d.	0
TOTAL	n.d.	n.d.	12 222

2.5 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		
Private ownership		
Other types of ownership		
Management rights		

Other general comments to the table

3 Table T3 – Forest designation and management

3.1 FRA 2010 Categories and definitions

Term	Definition
Primary designated function	The primary function or management objective assigned to a management unit either by legal prescription, documented decision of the landowner/manager, or evidence provided by documented studies of forest management practices and customary use.
Protected areas	Areas especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
Categories of primary designated functions	
Production	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Protection of soil and water	Forest area designated primarily for protection of soil and water.
Conservation of biodiversity	Forest area designated primarily for conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas.
Social services	Forest area designated primarily for social services.
Multiple use	Forest area designated primarily for more than one purpose and where none of these alone is considered as the predominant designated function.
Other	Forest areas designated primarily for a function other than production, protection, conservation, social services or multiple use.
No / unknown	No or unknown designation.
Special designation and management categories	
Area of permanent forest estate (PFE)	Forest area that is designated to be retained as forest and may not be converted to other land use.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.
Forest area under sustainable forest management	To be defined and documented by the country.
Forest area with management plan	Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, which is periodically revised.

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

3.2.2 Classification and definitions

National class	Definition
Private Ownership	Includes titled and untitled Amerindian Lands
State Land	Refers land under the management and control of the Government of Guyana.
Other Forested Land	Refers to land outside of the above two categories.

3.2.3 Original data

Social Services	Hectares
Conservation International	82,200
5% of total forest area with management plan (5,525,240 ha)	276,262
Total Social Services (inclusive of Conservation and Biodiversity)	358,462
Biodiversity Area (Proposed protected areas)	151,000

Remaining forests are designated for production.

All state forests (12 222 179 hectares) are considered to be Permanent Forest Estate. Likewise, all State forests are considered to be under sustainable management.

Forest area with management plan	Ha
Wood Cutting Lease (WCL)	295,610
Timber Sales Agreement (TSA)	4,492,366
State Forest Exploratory Permit (SFEP)	737,264
Total Forest area with management plan	5,525,240

3.3 Analysis and processing of national data

3.3.1 Estimation and forecasting

The same figures have been used for 2000, 2005 and 2010.

3.4 Data for Table T3

Table 3a – Primary designated function

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	n.a.	14 696	14 696	14 696
Protection of soil and water	n.a.	0	0	0
Conservation of biodiversity	n.a.	151	151	151
Social services	n.a.	358	358	358
Multiple use	n.a.	0	0	0
Other (please specify in comments below the table)	n.a.	0	0	0
No / unknown	n.a.	0	0	0
TOTAL	n.a.	15 205	15 205	15 205

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	9000	12 222	12 222	12 222
Forest area within protected areas	NA			
Forest area under sustainable forest management	9000	12 222	12 222	12 222
Forest area with management plan	NA	5 525	5 525	5 525

3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production		
Protection of soil and water		
Conservation of biodiversity		
Social services	The hinterland of Guyana is unique in that there are a number of indigenous communities scattered across the hinterland and these are the persons that benefit from the social services derived from these areas. However, these areas also fulfill function of biodiversity conservation.	
Multiple use		
Other		
No / unknown designation		
Area of permanent forest estate		Prior to 1997 the State Forest gazetted by the GoG was 9 million hectares. Subsequently in 1997 the GoG increased the area under State Forest by 4.6 million hectares to a total of 13.6 million hectares.
Forest area within protected areas		
Forest area under sustainable forest management		
Forest area with management plan		

Other general comments to the table

4 Table T4 – Forest characteristics

4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
Characteristics categories	
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.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
Other naturally regenerated forest of introduced species (sub-category)	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species (sub-category)	Planted forest, where the planted/seeded trees are predominantly of introduced species.
Special categories	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

4.2.2 Classification and definitions

National class	Definition
Private Ownership	Includes titled and untitled Amerindian Lands
State Land	Refers land under the management and control of the Government of Guyana.
Other Forested Land	Refers to land outside of the above two categories.

4.2.3 Original data

From the concession register it can be concluded that by 2007, the total area intervened by humans is 8 415 000 hectares. Remaining forests are considered to be primary.

4.3 Analysis and processing of national data

4.3.1 Estimation and forecasting

The 2007 figures have been used for 2000, 2005 and 2010.

4.4 Data for Table T4

Table 4a

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	n.a.	6 790	6 790	6 790
Other naturally regenerated forest	n.a.	8 415	8 415	8 415
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
Planted forest	n.a.	0	0	0
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
TOTAL	15 205	15 205	15 205	15 205

Table 4b

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	81	81	81	81
Bamboo (Forest and OWL)	n.a.	n.a.	n.a.	n.a.

4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		
Other naturally regenerating forest		
Planted forest	Guyana has no plantations for commercial use, only a few sample plots for research purposes and of insignificant area.	
Rubber plantations		
Mangroves		
Bamboo		

Other general comments to the table

5 Table T5 – Forest establishment and reforestation

5.1 FRA 2010 Categories and definitions

Term	Definition
Afforestation	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest.
Reforestation	Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
Natural expansion of forest	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).

5.2 National data

5.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

5.2.2 Original data

There are no afforestation and reforestation activities in Guyana.

5.3 Data for Table T5

FRA 2010 Categories	Annual forest establishment (hectares/year)			...of which of introduced species ¹⁾ (hectares/year)		
	1990	2000	2005	1990	2000	2005
Afforestation	0	0	0	0	0	0
Reforestation	0	0	0	0	0	0
...of which on areas previously planted	0	0	0	0	0	0
Natural expansion of forest	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Note: The figures for the reporting years refer to the averages for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively.

5.4 Comments to Table T5

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Afforestation		
Reforestation		
Natural expansion of forest		

Other general comments to the table

6 Table T6 – Growing stock

6.1 FRA 2010 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees more than X cm in diameter at breast height (or above buttress if these are higher). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.
Growing stock of commercial species	Growing stock (see def. above) of commercial species.

6.2 National data

6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Guyana Forestry Commission, Forest Resources Information Unit	H	Area Sizes	2005 - 2007	Forest area.

6.2.2 Original data

No documented original data on growing stock and volumes are available. The biomass data from the biomass study used for compiling table T7 has been used, which indicates an average above-ground tree biomass of 189 tonnes per hectare.

All forests are broadleaved.

6.3 Analysis and processing of national data

6.3.1 Reclassification into FRA 2010 categories

Assuming humid tropical forests with an average volume of 120-200 m³ per hectare, the IPCC Guidelines gives a biomass conversion and expansion factor of 1.3. Thus, dividing 189 tonnes of above-ground biomass per hectare by 1.3 gives a volume of 145 m³ per hectare. This has been multiplied with the total forest area, resulting in a total volume of 2206 million m³.

6.3.2 Estimation and forecasting

Lacking any data on trends, the same figures has been used for all reporting years.

6.4 Data for Table T6

Table 6a – Growing stock

FRA 2010 category	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	2 206	2 206	2 206	2 206	n.a.	n.a.	n.a.	n.a.
... of which coniferous	0	0	0	0	n.a.	n.a.	n.a.	n.a.
... of which broadleaved	2 206	2 206	2 206	2 206	n.a.	n.a.	n.a.	n.a.
Growing stock of commercial species	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 6b – Growing stock of the 10 most common species

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 st	<i>Chlorocardium rodiei</i>	Greenheart	n.a.	n.a.	n.a.
2 nd	<i>Peltogyne Spp.</i>	Purpleheart	n.a.	n.a.	n.a.
3 rd	<i>Carapa spp.</i>	Crabwood	n.a.	n.a.	n.a.
4 th	<i>Catostemma spp.</i>	Baromalli	n.a.	n.a.	n.a.
5 th	<i>Hymenaea spp.</i>	Locust	n.a.	n.a.	n.a.
6 th	<i>Eperua spp.</i>	Wallaba	n.a.	n.a.	n.a.
7 th	<i>Aspidosperma album</i>	Shibadan	n.a.	n.a.	n.a.
8 th	<i>Loxopterygium sagotii</i>	Hububalli	n.a.	n.a.	n.a.
9 th	<i>Goupia glabra</i>	Kabukalli	n.a.	n.a.	n.a.
10 th	<i>Mora excelsa</i>	Mora	n.a.	n.a.	n.a.
Remaining			n.a.	n.a.	n.a.
TOTAL			n.a.	n.a.	n.a.

Note: Rank refers to the order of importance in terms of growing stock, i.e. 1st is the species with the highest growing stock. Year 2000 is the reference year for defining the species list and the order of the species.

Table 6c – Specification of threshold values

Item	Value	Complementary information
Minimum diameter (cm) at breast height ¹ of trees included in growing stock (X)	n.a.	
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	n.a.	
Minimum diameter (cm) of branches included in growing stock (W)	n.a.	
Volume refers to “above ground” (AG) or “above stump” (AS)	n.a.	

¹ Diameter at breast height (DBH) refers to diameter over bark measured at a height of 1.30 m above ground level or 30 cm above buttresses if these are higher than 1 m.

6.5 Comments to Table T6

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total growing stock	Growing stock data has been calculated from biomass data based on a sample.	
Growing stock of broadleaved / coniferous		
Growing stock of commercial species		
Growing stock composition		

Other general comments to the table

7 Table T7 – Biomass stock

7.1 FRA 2010 Categories and definitions

Category	Definition
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 or any other diameter used by the country.

7.2 National data

7.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
ter Steege: Biomass Estimate for Forest in Guyana and their Use in Carbon Offset - Iwokrama	H	Biomass and Carbon Offset	2001	

7.2.2 Original data

Biomass estimates for forests in 7 inventory zones in Guyana (tonnes/ha) . Source: ter Steege, p. 19.

	Trees	Roots	Other	Large litter	Small litter	TOTAL
Zone 2	187	41	7	9	7	252
Zone 3	206	45	8	10	7	276
Zone 4	121	27	5	6	7	166
Zone 6	140	31	5	7	7	190
Zone 7	230	45	8	10	7	272
Zone 9	171	38	6	9	7	232
Zone 10	218	48	8	11	7	293
Average	181.9	39.3	6.7	8.9	7	243.7

The biomass estimates were derived from stand tables to which a biomass equation for French Guiana (Lescure et al. 1983) was applied.

7.3 Analysis and processing of national data

7.3.1 Reclassification into FRA 2010 categories

Trees + Other: Above-ground biomass
 Roots: Below-ground biomass
 Large litter: Dead wood

This gives the following biomass values:

Biomass (tonnes per hectare)			
AGB	BGB	DW	TOTAL
189	39	9	237

Multiplying these per hectare values with total forest area as of table T1, gives:

Biomass (million tonnes)			
AGB	BGB	DW	TOTAL
2867	597	135	3599

7.3.2 Estimation and forecasting

The same value has been used for all reporting years.

7.4 Data for Table T7

FRA 2010 category	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass	2 867	2 867	2 867	2 867	n.a.	n.a.	n.a.	n.a.
Below-ground biomass	597	597	597	597	n.a.	n.a.	n.a.	n.a.
Dead wood	135	135	135	135	n.a.	n.a.	n.a.	n.a.
TOTAL	3 599	3 599	3 599	3 599	n.a.	n.a.	n.a.	n.a.

7.5 Comments to Table T7

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Above-ground biomass	Data are based on a sample study	
Below-ground biomass		
Dead wood		

Other general comments to the table

8 Table T8 – Carbon stock

8.1 FRA 2010 Categories and definitions

Category	Definition
Carbon in above-ground biomass	Carbon in all living biomass above the soil, including stem, stump, branches, bark, seeds, and foliage.
Carbon in below-ground biomass	Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded, because these often cannot be distinguished empirically from soil organic matter or litter.
Carbon in dead wood	Carbon in 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 or any other diameter used by the country.
Carbon in litter	Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm), lying dead in various states of decomposition above the mineral or organic soil.
Soil carbon	Organic carbon in mineral and organic soils (including peat) to a specified depth chosen by the country and applied consistently through the time series.

8.2 National data

8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Biomass Estimate for Forest in Guyana and their Use in Carbon Offset - Iwokrama	H	Biomass	2001	

8.2.2 Original data

Data from table T7 has been used directly as input to this reporting table. Litter biomass is reported under original data to table T7.

8.3 Analysis and processing of national data

Biomass figures from table T7 were multiplied with a carbon fraction of 0.47. As for litter, the average of 7 tonnes biomass per hectare was multiplied with the forest area and then with 0.47, which give 50 million tons of litter carbon.

Assuming predominantly HAC soils in wet tropical condition, gives 44 tons of carbon in soil organic matter down to a depth of 30 cm (IPCC guidelines). That gives 669 million tons of soil carbon in total.

8.4 Data for Table T8

FRA 2010 Category	Carbon (Million metric tonnes)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Carbon in above-ground biomass	1 348	1 348	1 348	1 348	n.a.	n.a.	n.a.	n.a.
Carbon in below-ground biomass	281	281	281	281	n.a.	n.a.	n.a.	n.a.
Sub-total: Living biomass	1 629	1 629	1 629	1 629	n.a.	n.a.	n.a.	n.a.
Carbon in dead wood	63	63	63	63	n.a.	n.a.	n.a.	n.a.
Carbon in litter	50	50	50	50	n.a.	n.a.	n.a.	n.a.
Sub-total: Dead wood and litter	113	113	113	113	n.a.	n.a.	n.a.	n.a.
Soil carbon	669	669	669	669	n.a.	n.a.	n.a.	n.a.
TOTAL	2 411	2 411	2 411	2 411	n.a.	n.a.	n.a.	n.a.

Soil depth (cm) used for soil carbon estimates	30
--	----

8.5 Comments to Table T8

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Carbon in above-ground biomass		
Carbon in below-ground biomass		
Carbon in dead wood		
Carbon in litter		
Soil carbon		

Other general comments to the table

9 Table T9 – Forest fires

No data are available for this reporting table.

10 Table T10 – Other disturbances affecting forest health and vitality

No data are available for this reporting table.

11 Table T11 – Wood removals and value of removals

11.1 FRA 2010 Categories and definitions

Category	Definition
Industrial roundwood removals	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removals	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

11.2 National data

11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

11.2.2 Original data

Original data for both industrial roundwood and woodfuel are under bark. Volume over bark is calculated by multiplying by 1.15.

(1000 m ³) under bark	2000	2001	2002	2003	2004	2005	2006	2007	2008
Industrial roundwood (Logs and piles and poles)	315.4	331.2	312.1	250.9	384	343.5	411.2	351.3	294
Woodfuel	24.9	15.2	20.3	16.6	17.0	17.8	20.5	26.2	21.1

(1000 m ³) over bark	1990	2000	2005
Industrial roundwood (logs and piles and poles)	-	363	395
Woodfuel	-	28.6	20.5

Source: Guyana Forestry Commission

11.3 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m ³ o.b.)	n.d.	363	395	n.d.	28.6	20.5
... of which from forest	n.d.	363	395	n.d.	28.6	20.5
Unit value (local currency / m ³ o.b.)	n.d.	G\$35 000	G\$50 000	n.d.	n.d.	n.d.
Total value (1000 local currency)	n.d.	12 705 000	19 750 000	n.d.	n.d.	n.d.

Note: The figures for the reporting years refer to the averages of annually affected areas for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively.

	1990	2000	2005
Name of local currency		Guyana Dollars	Guyana Dollars

11.4 Comments to Table T11

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of industrial roundwood removals		
Total volume of woodfuel removals		
Unit value		
Total value		

Other general comments to the table

12 Table T12 – Non-wood forest products removals and value of removals

12.1 FRA 2010 Categories and definitions

Term	Definition
Non-wood forest product (NWFP)	Goods derived from forests that are tangible and physical objects of biological origin other than wood.
Value of NWFP removals	For the purpose of this table, value is defined as the market value at the site of collection or forest border.

NWFP categories

Category
<u>Plant products / raw material</u>
1. Food
2. Fodder
3. Raw material for medicine and aromatic products
4. Raw material for colorants and dyes
5. Raw material for utensils, handicrafts & construction
6. Ornamental plants
7. Exudates
8. Other plant products
<u>Animal products / raw material</u>
9. Living animals
10. Hides, skins and trophies
11. Wild honey and bee-wax
12. Wild meat
13. Raw material for medicine
14. Raw material for colorants
15. Other edible animal products
16. Other non-edible animal products

12.2 National data

12.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

12.3 Data for Table T12

Rank	Name of product	Key species	Unit	NWFP removals 2005		NWFP category
				Quantity	Value (1000 local currency)	
1 st	Manicole Palm	Palm	Stems	2,478,000	49,560	1
2 nd	Wattles	All Species	Pcs	176,323	26,448	5
3 rd						
4 th						
5 th						
6 th						
7 th						
8 th						
9 th						
10 th						
All other plant products						
All other animal products						
TOTAL					76,008	

	2005
Name of local currency	Guyana Dollar

12.4 Comments to Table T12

Variable / category	Comments related to data, definitions, etc.
10 most important products	
Other plant products	
Other animal products	
Value by product	
Total value	

Other general comments to the table

13 Table T13 – Employment

13.1 FRA 2010 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment	Includes all persons in paid employment or self-employment.
Paid employment	Persons who during a specified reference period performed some work for <u>wage or salary</u> in cash or in kind.
Self-employment	Persons who during a specified reference period performed some work for <u>profit or family gain</u> in cash or in kind (e.g. employers, own-account workers, members of producers' cooperatives, contributing family workers).

13.2 National data

13.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Sector Information Report, Guyana	H	Definitions	2005 - 2007	Forest Area Allocation

13.2.2 Original data

13.3 Data for Table T13

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods	n.a..	n.a..	23.6
...of which paid employment	n.a..	n.a..	23.6
...of which self-employment	n.a..	n.a..	n.a..
Employment in management of protected areas	n.a..	n.a..	n.a..

13.4 Comments to Table T13

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Employment in primary production of goods		
Paid employment / self-employment		
Employment in management of protected areas		

Other general comments to the table

14 Table T14 – Policy and legal framework

14.1 FRA 2010 Categories and definitions

Term	Definition
Forest policy	Forest policy is the set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest and tree resources for the benefit of the society.
Forest law	Set of rules enacted by the legislative authority of a country regulating the access, management, conservation and use of forest resources.

14.2 Data for Table T14

Indicate the existence of the following (2008)			
1. Forest policy statement with national scope	<input checked="" type="checkbox"/>	Yes	
	<input type="checkbox"/>	No	
If Yes above, provide:	Year of endorsement	1997	
	Reference to document	National Forest Policy Statement www.forestry.gov.gy	
2. National forest programme (nfp)	<input checked="" type="checkbox"/>	Yes	
	<input type="checkbox"/>	No	
If Yes above, provide:	Name of nfp in country	National Forest Plan	
	Starting year	2001	
	Current status	<input type="checkbox"/>	In formulation
		<input checked="" type="checkbox"/>	In implementation
		<input type="checkbox"/>	Under revision
<input type="checkbox"/>		Process temporarily suspended	
Reference to document or web site	National Forest Plan documents available www.forestry.gov.gy		
3. Law (Act or Code) on forest with national scope	<input checked="" type="checkbox"/>	Yes, specific forest law exists	
	<input type="checkbox"/>	Yes, but rules on forests are incorporated in other (broader) legislation	
	<input type="checkbox"/>	No, forest issues are not regulated by national legislation	
If Yes above, provide:	Year of enactment	1953 with several amendments	
	Year of latest amendment	1996 – Revised new forest legislation currently in Parliament for consideration	
	Reference to document	Forest Law document www.forestry.gov.gy	

In case the responsibility for forest policy- and/or forest law-making is decentralized, please indicate the existence of the following and explain in the comments below the table how the responsibility for forest policy- and law-making is organized in your country.		
4. Sub-national forest policy statements		Yes
	X	No
If Yes above, indicate the number of regions/states/provinces with forest policy statements		
5. Sub-national Laws (Acts or Codes) on forest		Yes
	X	No
If Yes above, indicate the number of regions/states/provinces with Laws on forests		

Explanatory notes to the reporting table:

1. The national forest policy document or statement describes the objectives, priorities and means for implementation of the forest policy. It is endorsed when it is officially recognised as a government policy or instruction. The endorsement is formalised by the Minister in charge of forests by a dated and signed document.
2. The term “national forest programme” is a generic expression referring to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels and providing a framework and guidance for country-driven forest sector development in consultation and participation of all stakeholders and in consistence with policies of other sectors and international policies.
3. The term “law on forest” refers to a Law (Act or Code) providing specific rules on forests and forest sector management, such as access, management and use of forest resources. The Law is enacted when the legislative authority adopted its text.
4. Same as (1) but the policy documents or statements refer to sub-national administrative units, e.g. States in a Federation or Autonomous Regions or Provinces.
5. Same as (3) but indicate if specific Laws on forests exist at sub-national level (at the level of regions/states/provinces).

14.3 Comments to Table T14

Variable / category	Comments related to data, definitions, etc.
Forest policy statement with national scope	Guyana has 10 Administrative Regions, the National forest policy statement applies to all the regions as the policy is both national and sub national.
National forest programme (nfp)	
Law (Act or Code) on forest with national scope	Guyana has 10 Administrative Regions, the Forest Law applies to all the regions as the policy is both national and sub national. All laws are enactment by the Central Government and applies throughout the country.
Sub-national forest policy statements	
Sub-national Laws (Acts or Codes) on forest	

Other general comments to the table

15 Table T15 – Institutional framework

15.1 FRA 2010 Categories and definitions

Term	Definition
Minister responsible for forest policy-making	Minister holding the main responsibility for forest issues and the formulation of the forest policy.
Head of Forestry	The Head of Forestry is the Government Officer responsible for implementing the mandate of the public administration related to forests.
Level of subordination	Number of administrative levels between the Head of Forestry and the Minister.
University degree	Qualification provided by University after a minimum of 3 years of post secondary education.

15.2 Data for Table T15

Table 15a

FRA 2010 Category	2008	
Minister responsible for forest policy formulation : please provide full title	Minister of Agriculture	
Level of subordination of Head of Forestry within the Ministry	x	1 st level subordination to Minister
		2 nd level subordination to Minister
		3 rd level subordination to Minister
		4 th or lower level subordination to Minister
Other public forest agencies at national level	None	
Institution(s) responsible for forest law enforcement	Guyana Forestry Commission	

Table 15b

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total staff	140	39%	160	38%	242	27 %
...of which with university degree or equivalent	17	41%	26	38%	53	34%

Note: Excludes people employed in State-owned enterprises, education and research, as well as temporary / seasonal workers.

15.3 Comments to Table T15

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Minister responsible for forest policy formulation		
Level of subordination of Head of Forestry within the Ministry		
Other public forest agencies at national level		
Institution(s) responsible for forest law enforcement		
Human resources within public forest institutions		

Other general comments to the table

16 Table T16 – Education and research

16.1 FRA 2010 Categories and definitions

Term	Definition
Annual graduation of students	Number of students that have successfully completed a Bachelor's or higher degree in forest science or achieved a certificate or diploma as forest technician.
Doctor's degree (PhD)	University (or equivalent) education with a total duration of about 8 years.
Master's degree (MSc) or equivalent	University (or equivalent) education with a total duration of about five years.
Bachelor's degree (BSc) or equivalent	University (or equivalent) education with a duration of about three years.
Technician certificate or diploma	Qualification issued from a technical education institution consisting of 1 to 3 years post secondary education.
Publicly funded forest research centers	Research centers implementing research programmes on forest matters. Funding is public or channelled through public institutions.

16.2 National data

16.2.1 Original data

Data on graduation of students are only available for 2008, as presented in the table below. There are no public forest research centres in Guyana therefore the number of professionals working in public forest research centres are reported as zero.

16.3 Data for Table T16

FRA 2010 Category	Annual graduation of students within the country					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Master's degree in Forest Science	n.a.	n.a.	n.a.	n.a.	5	40%
Bachelor's degree in Forest Science	n.a.	n.a.	n.a.	n.a.	12	50%
Forest technician certificate / diploma	n.a.	n.a.	n.a.	n.a.	20	50%
FRA 2010 Category	Professionals working in public forest research centres					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Doctor's degree (PhD)	0.	n.a.	0	n.a.	0	n.a.
Master's degree (MSc) or equivalent	0.	n.a.	0	n.a.	0	n.a.
Bachelor's degree (BSc) or equivalent	0	n.a.	0.	n.a.	0.	n.a.

16.4 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Annual graduation of students within the country		
Professionals working in public forest research centres	There are no public forest research centres in Guyana	

Other general comments to the table

17 Table T17 – Public revenue collection and expenditure

17.1 FRA 2010 Categories and definitions

Category	Definition
Forest revenue	All government revenue collected from the domestic production and trade of forest products and services. For this purpose, forest products include: roundwood; sawnwood; wood-based panels; pulp and paper; and non-wood forest products. As far as possible, this should include revenue collected by all levels of government (i.e. central, regional/provincial and municipal level), but it should exclude the income of publicly owned business entities.
Public expenditure	All government expenditure on forest related activities (further defined below).
Operational expenditure (sub-category to Public expenditure)	All government expenditure on public institutions solely engaged in the forest sector. Where the forest administration is part of a larger public agency (e.g. department or ministry), this should only include the forest sector component of the agency's total expenditure. As far as possible, this should also include other institutions (e.g. in research, training and marketing) solely engaged in the forest sector, but it should exclude the expenditure of publicly owned business entities.
Transfer payments (sub-category to Public expenditure)	All government expenditure on direct financial incentives paid to non-government and private-sector institutions, enterprises communities or individuals operating in the forest sector to implement forest related activities.
Domestic funding	Public expenditure funded from domestic public financial resources, including: retained forest revenue; forest-related funds; and allocations from the national budget (i.e. from non-forest sector public revenue sources).
External funding	Public expenditure funded from grants and loans from donors, non-governmental organisations, international lending agencies and international organisations, where such funds are channelled through national public institutions.

17.2 National data

17.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
GFC's Financial Statements	H	Revenues and Expenditures	2000 and 2005	

17.2.2 Original data

Data for this table are taken directly from the Forestry Commission's financial statements.

17.3 Data for Table T17

Table 17a - Forest revenues

FRA 2010 Categories	Revenues (1000 local currency)	
	2000	2005
Forest revenue	452,000	510,000

Table 17b - Public expenditure in forest sector by funding source

FRA 2010 Categories	Domestic funding (1000 local currency)		External funding (1000 local currency)		Total (1000 local currency)	
	2000	2005	2000	2005	2000	2005
Operational expenditure	264,000	420,000	0	0	264,000	420,000
Transfer payments	0	0	0	0	0	0
Total public expenditure	264,000	420,000	0	0	264,000	420,000
If transfer payments are made for forest management and conservation, indicate for what specific objective(s) - Please tick all that apply.	<input type="checkbox"/>	Reforestation				
	<input type="checkbox"/>	Afforestation				
	<input type="checkbox"/>	Forest inventory and/or planning				
	<input type="checkbox"/>	Conservation of forest biodiversity				
	<input type="checkbox"/>	Protection of soil and water				
	<input type="checkbox"/>	Forest stand improvement				
	<input type="checkbox"/>	Establishment or maintenance of protected areas				
	<input type="checkbox"/>	Other, specify below				

17.4 Comments to Table T17

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue		
Operational expenditure		
Transfer payments		

Other general comments to the table