Forestry Department
Food and Agriculture Organization of the United Nations

GLOBAL FOREST RESOURCES ASSESSMENT

COUNTRY REPORTS

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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 2005 (FRA 2005), which is the most comprehensive assessment to date. More than 800 people have been involved, including 172 national correspondents and their colleagues, an Advisory Group, international experts, FAO staff, consultants and volunteers. Information has been collated from 229 countries and territories for three points in time: 1990, 2000 and 2005.

The reporting framework for FRA 2005 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes more than 40 variables related to the extent, condition, uses and values of forest resources. More information on the FRA 2005 process and the results - including all the country reports - is available on the FRA 2005 Web site (www.fao.org/forestry/fra2005).

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 2005 is:

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1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2005 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 *in situ*. 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 *in situ*; 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
ITTO 2003 – Sustainable Forest Management in Guyana	H	Executive summary – report of the diagnostic mission	1999	Forest area.
Guyana forestry commission. Mangrove survey. http://www.forestry.gov.gy/mangrove.htm	H	Definitions		

1.2.2 Classification and definitions

National class	Definition
Tropical high forest	Includes mixed forest, montante 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. *Eperua falcata* and *E. grandiflora* are strongly dominant and may form, alone or together, more than 60% of the canopy individuals. Common other species in the canopy layer are

	Catostemma fragrans, C. altsonii, Licania buxifolia, Talisia squarrosa, Ormosia coutinhoi, Eschweilera corrugata, Aspidosperma excelsum, Terminalia amazonia, Chamaecrista adiantifolia, Chamaecrista apocouita, Swartzia spp., *Dicymbe altsonii* (west Guyana only), *D. corymbosa* (ibid.), *Manilkara bidentata* (Pomeroon-Waini waterdivide) and *Pouteria*.
Other Swamps and Marsh Forest	In permanently flooded, flat plains in the present coastal zone a low swamp forest is found. Characteristic species are *Symphonia globulifera, Tabebuia insignis/fluviatilis, Pterocarpus officinalis* and *Euterpe oleracea*. Species that can become locally dominant in this forest type in Guyana are *Pentaclethra macroloba, Vatairea guianensis, Pterocarpus officinalis* and *Virola surinamensis*. *Manicaria saccifera* 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 *Symphonia globulifera, Virola surinamensis, Iryanthera* spp., *Pterocarpus officinalis, Mora excelsa, Pachira aquatica, Manicaria saccifera* and *Euterpe oleracea*.
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 *Avicennia germinans, Rhizophora mangle* and *Laguncularia racemosa* (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 *Humiria* balsamifera. Other common species in this scrub are *Swartzia bannia, Clusia fockeana, Licania incana, Bombax flaviflorum, Ocotea schomburgkiana, Trattinickia burserifolia, Ternstroemia punctata* and *Byrsonima crassifolia*.

Submontane forests of the Pakaraima uplands

Submontane forests, from 500 – 1500m, are fairly similar in composition to the lowland forests surrounding them, with species from *Dicymbe, Licania, Eschweilera, Mora, Alexa* being common to dominant. On white sands *Dicymbe, Dimorpandra, Eperua* and *Micrandra* are the most characteristic genera. Dry submontane forest is characterised by *Dicymbe jenmanii* (endemic to the Kaieteur region), *Moronobea jenmanii, Humiria balsamifera, Chrysophyllum beardii, Tabebuia* spp., *Anthodiscus obovatus, Saccoglottis, Dimorphandra cuprea* and *Clusia* spp.

Upper montane forests of the Pakaraima highlands

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 *Bonnetia tepuiensis, Schefflera, Podocarpus, Magnolia* and *Weinmannia* are found here. Low scrubs with Melastomataceae, Rubiaceae, *Ilex* and *Podocarpus steyermarkii* are also expected.

Submontane forests of south Guyana

Submontane forest of south Guyana

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 *Centrolobium, Cordia, Peltogyne, Vitex, Inga, Protium, Tetragastris, Parkia, Pseudopiptadenia, Spondias* and *Genipa.* Forests on the mountain tops are dominated by Myrtaceae and *Clusia* on Sierra do Acarai

1.2.3 Original data

Land Use Figures for Guyana, 000 ha

	1999	1999 1000 ha	FRA Class
Land Use	**Area by sub - category**	**Category total**	
Cultivated, settlement and deforested areas		1,002	other land
Tropical High Forest	16,835	16,835	forest
Mangrove Forest	81	81	forest
Savanna and Scrub	3,580	3,580	other wooded land
Total forest cover of which State Forest Other forest land	 13,580 6,916	20,496	
Total land Area		**21,497**	

1.3 Analysis and processing of national data

1.3.1 Calibration

Calibration was done to inland water category, which was reduced from forest area.

1.3.2 Estimation and forecasting

There is not evidence of significance forest are change for the years 2000 to 2005. Therefore the estimate for the year 1999 is considered constant. There is not enough information to report on the year 1990.

1.4 Reclassification into FRA 2005 classes

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

1.5 Data for National reporting table T1

FRA 2005 Categories	Area (1000 hectares)		
	1990	2000	2005
Forest	ID	15,104	15,104
Other wooded land	ID	3,580	3,580
Other land	ID	1,002	1,002
...of which with tree cover [1)]	ID	ID	ID
Inland water bodies[2]	ID	1812	1812

TOTAL		**21497**	**21497**

1.6 Comments to National reporting table T1

In the source data provided it should be noted that 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.

2 Table T2 – Ownership of Forest and Other wooded land

2.1 FRA 2005 Categories and definitions

Category	Definition
Private ownership	Land owned by individuals, families, private co-operatives, corporations, industries, religious and educational institutions, pension or investment funds, and other private institutions.
Public ownership	Land owned by the State (national, state and regional governments) or government-owned institutions or corporations or other public bodies including cities, municipalities, villages and communes.
Other ownership	Land that is not classified either as "Public ownership" or as "Private ownership".

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Mr. Krishna Dhanraj and Mr. Darren Kowlessar	M			Expert opinion
Land and Surveys	M	Map	Current year	
ITTO – Sustainable Forest Management in Guyana	H	Executive summary – report of the diagnostic mission	2003	

2.2.2 Classification and definitions

National class	Definition
Private Ownership	Includes titled and untitled Amerindian lands
State land	Refers to land under the control of Lands And Surveys for agricultural and housing purposes.
Other Forested Land	In this case refers to land that has not been given a specific function.

2.2.3 Original data

	1999	1000 ha	FRA Class
Land Use	**Area by sub - category**	**Category total**	
Cultivated, settlement and deforested areas		1,002	other land
Tropical High Forest	16,835	16,835	forest
Mangrove Forest	81	81	forest
Savanna and Scrub	3,580	3,580	other wooded land
Total forest cover of which State Forest Other forest land	13,5806,916	20,496	
Total land Area		**21,497**	

2.3 Analysis and processing of national data

2.3.1 Calibration

2.3.2 Estimation and forecasting

Using the original data, percentages of state forest was calculated.

	2000
% Unknown	0.337431694
% Public	0.662568306

Applying this percentages to the total areas of forest and other wooded land reported in table number one gives the following results:

	Forest 1999	Other wooded land 1999
Unknown	5097	1208
Public	10007	2372

2.4 Reclassification into FRA 2005 classes

2.5 Data for National reporting table T2

FRA 2005 Categories	Area (1000 hectares)			
	Forest		Other wooded land	
	1990	2000	1990	2000
Private ownership	ID	ID	ID	ID
Public ownership	ID	10,007	ID	2,372
Other ownership	ID	5,097	ID	1,208
TOTAL	**ID**	**15,104**	**ID**	**3,580**

2.6 Comments to National reporting table T2

There is no information to estimate private forest, therefore the difference is assumed unknown.

3 Table T3 – Designated function of Forest and Other wooded land

3.1 FRA 2005 Categories and definitions

Types of designation

Category	Definition
Primary function	A designated function is considered to be primary when it is significantly more important than other functions. This includes areas that are legally or voluntarily set aside for specific purposes.
Total area with function	Total area where a specific function has been designated, regardless whether it is primary or not.

Designation categories

Category / Designated function	Definition
Production	Forest / Other wooded land designated for production and extraction of forest goods, including both wood and non-wood forest products.
Protection of soil and water	Forest / Other wooded land designated for protection of soil and water.
Conservation of biodiversity	Forest / Other wooded land designated for conservation of biological diversity.
Social services	Forest / Other wooded land designated for the provision of social services.
Multiple purpose	Forest / Other wooded land designated to any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of social services and where none of these alone can be considered as being significantly more important than the others.
No or unknown function	Forest / Other wooded land for which a specific function has not been designated or where designated function is unknown.

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
ITTO – Sustainable Forest Management in Guyana	H	Executive summary – report of the diagnostic mission	2003	

3.2.2 Classification and definitions

No definition were provided by the country.

3.2.3 Original data

State forest					
	Area 000	**Number**	**Average size**	**% State forest**	**% commercial allocation**
Commercial uses					
State permissions	1325	352	3.8	9.8	22.9
Wood cutting lease	500	8	62.5	3.7	8.6
Timber sales agreements	3731	20	186.6	27.5	64.5
Total production	5556			40.7	96
Exploratory permit	233	2	116.4	1.7	4
Total commercial	**5789**			**42.6**	
Research					
Iwokrama	360			2.7	
Moraballi	29			0.2	
Other sites	3			0	
Total research	**392**			**2.9**	
Unallocated	**7399**			**54.5**	

3.3 Analysis and processing of national data

3.3.1 Calibration

3.3.2 Estimation and forecasting

The forest area in 2000 and 2005 is the same so the figures above were used directly for 1990, 2000 and 2005. According to UNEP, 1% of the total forest area of Guyana is protected.

3.4 Reclassification into FRA 2005 classes

State forest	Fra clases
Production	Production forest
Research	Social service

It is assumed that the production and research area listed in table 3.2.3 are all forest and none of them include savannah and scrub. The remaining forest area (including the private forest), and other wooded land are re-classified as unknown function.

3.5 Data for National reporting table T3

FRA 2005 Categories / Designated function	Area (1000 hectares)					
	Primary function			Total area with function		
	1990	2000	2005	1990	2000	2005
Forest						
Production	ID	5273	5273	ID	ID	ID
Protection of soil and water				ID	ID	ID
Conservation of biodiversity	ID	151	151	ID	ID	ID
Social services	ID	359	359	ID	ID	ID
Multiple purpose				not appl.	not appl.	not appl.
No or unknown function	ID	9320	9320	not appl.	not appl.	not appl.
Total - Forest	ID	**15,104**	**15,104**	not appl.	not appl.	not appl.
Other wooded land						
Production						
Protection of soil and water						
Conservation of biodiversity						
Social services						
Multiple purpose				not appl.	not appl.	not appl.
No or unknown function	ID	3580	3580	not appl.	not appl.	not appl.
Total – Other wooded land	ID	**3,580**	**3,580**	not appl.	not appl.	not appl.

3.6 Comments to National reporting table T3

4 Table T4 – Characteristics of Forest and Other wooded land

4.1 FRA 2005 Categories and definitions

Category	Definition
Primary	Forest / Other wooded land of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Modified natural	Forest / Other wooded land of naturally regenerated native species where there are clearly visible indications of human activities.
Semi-natural	Forest / Other wooded land of native species, established through planting, seeding or assisted natural regeneration.
Productive plantation	Forest / Other wooded land of introduced species, and in some cases native species, established through planting or seeding mainly for production of wood or non wood goods.
Protective plantation	Forest / Other wooded land of native or introduced species, established through planting or seeding mainly for provision of services.

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
ITTO – Sustainable Forest Management in Guyana	H	Executive summary – report of the diagnostic mission	2003	

4.2.2 Classification and definitions

4.2.3 Original data

State Forest area 000ha

Type of allocation	Area (000 ha)	NO	Average size	%State Forest	% commercial allocation
Commercial Uses					
State Forest Permissions	1,325	352	3.8	9.8	22.9
Wood Cutting Lease	500	8	62.5	3.7	8.6
Timber Sales Agreement	3,731	20	186.6	27.5	64.5
Total Production	5,556			40.9	96.0
Exploratory Permit	233	2	116.4	1.7	4.0
Total allocated for commercial use	5,789			**42.6**	
Research Uses					
Iwokrama	360			2.7	
Moraballi	29			0.2	
Other Sites	3			0.0	
Total research	392			2.9	
Unallocated	7,399			**54.5**	

4.3 Analysis and processing of national data

4.3.1 Calibration

4.3.2 Estimation and forecasting

A total of 5789 thousands of hectares, has been intervened by humans. The rest is to be considered primary forest.

Classes	Total area (000)
Primary	9,315
Modified	5,789
Semi-natural	
Productive	
Protective	
Total	**15,104**

4.4 Reclassification into FRA 2005 classes

4.5 Data for National reporting table T4

FRA 2005 Categories	Area (1000 hectares)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Primary	ID	9315	9315			
Modified natural	ID	5789	5789	ID	3580	3580
Semi-natural						
Productive plantation						
Protective plantation						
TOTAL	ID	**15,104**	**15,104**	ID	**3,580**	**3,580**

4.6 Comments to National reporting table T4

5 Table T5 – Growing stock

5.1 FRA 2005 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.
Commercial growing stock	The part of the growing stock of species that are considered as commercial or potentially commercial under current market conditions, and with a diameter at breast height of Z cm or more.

5.2 National data

5.2.1 Data sources

No information for this reporting table.

5.2.2 Classification and definitions

5.2.3 Original data

5.3 Analysis and processing of national data

5.3.1 Calibration

5.3.2 Estimation and forecasting

5.4 Reclassification into FRA 2005 classes

5.5 Data for National reporting table T5

FRA 2005 Categories	Volume (million cubic meters over bark)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Growing stock	ID	ID	ID	ID	ID	ID
Commercial growing stock	ID	ID	ID	ID	ID	ID

Specification of country threshold values	Unit	Value	Complementary information
1. Minimum diameter at breast height of trees included in Growing stock (X)	cm		
2. Minimum diameter at the top end of stem (Y) for calculation of Growing stock	cm		
3. Minimum diameter of branches included in Growing stock (W)	cm		
4. Minimum diameter at breast height of trees in Commercial growing stock (Z)	cm		
5. Volume refers to "Above ground" (AG) or "Above stump" (AS)	AG / AS		
6. Have any of the above thresholds (points 1 to 4) changed since 1990	Yes/No		
7. If yes, then attach a separate note giving details of the change	Attachment		

5.6 Comments to National reporting table T5

6 Table T6 – Biomass stock

6.1 FRA 2005 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 living 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 biomass	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.

6.2 National data

6.2.1 Data sources

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

6.2.2 Classification and definitions

6.2.3 Original data

Biomass Equation
In the simplest form the volume of a stem can be approximated by:

$V=0.7*\pi D^2/4*H$

Where D is DBH and H is stem height. This is 70% of a cylinder with bottom surface equal to the basal area of the tree and length equal to stem height. This formula has been used in most large scale inventories in Brazil, a.o. Radambrasil (Leite et al. 1974, Doi et al. 1975, Veloso et al. 1975). With wood density stem biomass can be calculated. Assuming constant proportions of biomass among stem, roots and leaves of the total tree biomass and assuming that threes constitute 97% of all biomass an estimate of all living biomass can be made.

Biomass in Forest regions in Guyana
Biomass for the forest regions in Guyana, gives a tree above ground biomass between **121 and 230t/ha**. Biomass, excluding litter, calculated with 70% of a cylinder, assuming a standard bole height of 18 m, and using specific wood density for each species, gives fairly comparable results. Very low biomass is encountered in zones 4 and 6, where the majority of the soil of the Berbice formation is found. Although the forests in central Guyana have a

higher average timber density than those of southern Guyana, the higher wood density can not compensate for the low stocking.

Biomass estimates for forests in 7 inventory zones in Guyana. (Above Ground Biomass)

	Trees	Roots	Other	Large litter	Small litter	Total 1	Total 2	Total C
Weighted avarage	**187**	**41**	**7**	**9**	**7**	**252**	**268**	**126**
Zone 3	206	45	8	10	7	276	297	138
Zone 4	121	27	5	6	7	166	182	83
Zone 6	140	31	5	7	7	190	215	95
Zone 7	230	45	8	10	7	272	275	136
Zone 9	171	38	6	9	7	232	257	116
Zone 10	218	48	8	11	7	293	294	146

6.3 Analysis and processing of national data

6.3.1 Calibration

6.3.2 Estimation and forecasting

To estimate biomass above ground the total forest area was multiplied by 146 tons/hectare, which corresponds to the weighted average of 187 tons/ha minus the 41 tons/hectare produce in roots.

For the estimation of below ground biomass the total of root biomass production of 41ton/ha was multiplied to the total forest area.

For the estimation of dead wood, a root ratio of 0.11 was applied.

6.4 Reclassification into FRA 2005 classes

6.5 Data for National reporting table T6

FRA 2005 Categories	Biomass (million metric tonnes oven-dry weight)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Above-ground biomass	ID	2824	2824	ID	ID	ID
Below-ground biomass	ID	619	619	ID	ID	ID
Dead wood biomass	ID	378	378	ID	ID	ID
TOTAL	ID	**3,821**	**3,821**	ID	ID	ID

6.6 Comments to National reporting table T6

7 Table T7 – Carbon stock

7.1 FRA 2005 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 living 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 biomass	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 a minimum diameter chose by the country for lying dead (for example 10 cm), in various states of decomposition above the mineral or organic soil. This includes the litter, fumic, and humic layers.
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.

7.2 National data

7.2.1 Data sources

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

7.2.2 Classification and definitions

7.2.3 Original data

FRA 2005 Categories	Biomass (million metric tonnes oven-dry weight)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Above-ground biomass	ID	2824	2824	ID	ID	ID
Below-ground biomass	ID	619	619	ID	ID	ID
Dead wood biomass	ID	378	378	ID	ID	ID
TOTAL	ID	**3821**	**3821**	ID	ID	ID

7.3 Analysis and processing of national data

Calculations were done using the method provided by the FRA 2005 guidelines. Litter was calculated applying the large and small litter production presented in table 6.2.3.

7.3.1 Calibration

7.3.2 Estimation and forecasting

7.4 Reclassification into FRA 2005 classes

7.5 Data for National reporting table T7

FRA 2005 Categories	Carbon (Million metric tonnes)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Carbon in above-ground biomass	ID	1412	1412	ID	ID	ID
Carbon in below-ground biomass	ID	310	310	ID	ID	ID
Sub-total: Carbon in living biomass	ID	**1722**	**1722**	ID	ID	ID
Carbon in dead wood	ID	190	190	ID	ID	ID
Carbon in litter	ID	121	121	ID	ID	ID
Sub-total: Carbon in dead wood and litter	ID			ID	ID	ID
Soil carbon to a depth of _____ cm	ID			ID	ID	ID
TOTAL CARBON	ID	**2,033**	**2,033**	ID	ID	ID

7.6 Comments to National reporting table T7

8 Table T8 – Disturbances affecting health and vitality

8.1 FRA 2005 Categories and definitions

Category	Definition
Disturbance by fire	Disturbance caused by wildfire, independently whether it broke out inside or outside the forest/OWL.
Disturbance by insects	Disturbance caused by insect pests that are detrimental to tree health.
Disturbance by diseases	Disturbance caused by diseases attributable to pathogens, such as a bacteria, fungi, phytoplasma or virus.
Other disturbance	Disturbance caused by other factors than fire, insects or diseases.

8.2 National data

8.2.1 Data sources

No data available to report on this table.

8.2.2 Classification and definitions

8.2.3 Original data

8.3 Analysis and processing of national data

8.3.1 Estimation and forecasting

8.4 Reclassification into FRA 2005 classes

8.5 Data for National reporting table T8

FRA-2005 Categories	Average annual area affected (1000 hectares)			
	Forests		Other wooded land	
	1990	2000	1990	2000
Disturbance by fire	NDA	NDA	NDA	NDA
Disturbance by insects	NDA	NDA	NDA	NDA
Disturbance by diseases	NDA	NDA	NDA	NDA
Other disturbance	NDA	NDA	NDA	NDA

Insufficient data

8.6 Comments to National reporting table T8

9 Table T9 – Diversity of tree species

9.1 FRA 2005 Categories and definitions

Category	Definition
Number of native tree species	The total number of native tree species that have been identified within the country.
Number of critically endangered tree species	The number of native tree species that are classified as "Critically endangered" in the IUCN red list.
Number of endangered tree species	The number of native tree species that are classified as "Endangered" in the IUCN red list.
Number of vulnerable tree species	The number of native tree species that are classified as "Vulnerable" in the IUCN red list.

9.2 National data

9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
IUCN 2004. 2004 IUCN Red List of Threatened Species. <www.redlist.org>.	H		2004	
Checklist of the trees of Guyana – Tropenbos Series	H	Plants of Guyana	2005	

9.2.2 Classification and definitions

9.2.3 Original data

9.3 Analysis and processing of information

9.4 Reclassification

9.5 Data for National reporting table T9

FRA 2005 Categories	Number of species (year 2000)
Native tree species	1182
Critically endangered tree species	1
Endangered tree species	3
Vulnerable tree species	18

9.6 Comments to National reporting table T9

Critical endangered
Vouacapoua americana

Endangered specie
Aniba rosaeodora
Trichilia surumuensis
Virola surinamensis

Vulnerable

Bertholletia excelsa	BRAZIL-NUT TREE (E) PARA NUT (E) NOIX U BRÉSIL (F) TURURY (S)
Bonnetia rubicunda	
Cedrela odorata	CIGAR-BOX WOOD (E) RED CEDAR (E) SPANISH CEDAR (E) ACAJOU ROUGE (F) CAJOU-BOIS (F) CEDRAT (F) CEDRO ROJO (S)
Chlorocardium rodiei	COGWOOD (E) DEMERARA GREENHEART (E) GREENHEART (E) ISPINGO MOENA (S)
Couratari calycina	
Couratari guianensis	FINE-LEAF WADARA (E)CACHIMBO CASPI S) CACHIMBO (S) CAPA DE TABACO (S) COCO CABUYO (S) TAUARI (S)
Dulacia crassa	
Eschweilera fanshawei	
Ficus pakkensis	FIGUEIRA-DE-PAKKA (S)
Graffenrieda caudata	
Lecythis brancoensis	
Lecythis schomburgkii	
Manilkara pubicarpa	
Mollia glabrescens	
Pouteria kaieteurensis	
Pouteria penicillata	
Swietenia macrophylla	ACAJOU (E, F)BI (E)BRAZILIAN MAHOGANY(E)HONDURAS MAHOGANY (E) LARGE-LEAVED MAHOGANY (E)MAHOGANI GRANDS FEUILLES (F) CAOBA (S)MARA (S)MOGNO (S)
Syagrus stratincola	

10 Table T10 – Growing stock composition

10.1 FRA 2005 Categories and definitions

List of species names (scientific and common names) of the ten most common species.

10.2 National data

No data available for this reporting table.

10.2.1 Data sources

10.2.2 Original data

10.3 Analysis and processing of national data

10.3.1 Calibration

10.3.2 Estimation and forecasting

10.4 Reclasification

10.5 Data for National reporting table T10

FRA 2005 Categories / Species name (Scientific name and common name)	**Growing Stock in Forests (million cubic meters)**	
	1990	**2000**
Chlorocardium rodiei (Greenheart)	ID	ID
Peltogyne Spp. (Purpleheart)	ID	ID
Carapa spp. (Crabwood)	ID	ID
Catostemma spp. (Baromalli)	ID	ID
Hymenaea spp. (Locust)	ID	ID
Eperua spp. (Wallaba)	ID	ID
Aspidosperma album (Shibadan)	ID	ID
Loxopterygium sagotii (Hububalli)	ID	ID
Goupia glabra (Kabukalli)	ID	ID
Mora excelsa (Mora)	ID	ID
Remainder of species	ID	ID
TOTAL	ID	ID

10.6 Comments to National reporting table T10

11 Table T11 – Wood removal

11.1 FRA 2005 Categories and definitions

Category	Definition
Industrial wood removal	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removal	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
Guyana Forestry Commission. National Reports.	H	Industrial and fuel wood.	1998 to 2002	

11.2.2 Classification and definitions

11.2.3 Original data

GFC information available ('000 m^3)

	1998	1999	2000	2001	2002
Industrial	386.67	435.36	288.53	311.59	297.54
Fuelwood	10.46	13.62	21.33	11.24	13.40

11.3 Analysis and processing of national data

11.3.1 Estimation and forecasting

Five years average was estimated using the data provided by the FAO STAT and multiplied by 1.15 to convert it from under bark to over bark volume. Data was then projected to year 2005.

11.4 Reclassification into FRA 2005 classes

11.5 Data for National reporting table T11

FRA 2005 Categories	Forest			Other wooded land		
	1990	**2000**	**2005**	**1990**	**2000**	**2005**
Industrial roundwood	NA	396	NA	NA	NA	NA
Woodfuel	NA	16	NA	NA	NA	NA
TOTAL for Country	NA	**412**	NA			

11.6 Comments to National reporting table T11

12 Table T12 – Value of wood removal

12.1 FRA 2005 Categories and definitions

Category	Definition
Value of industrial wood removal	Value of the wood removed for production of goods and services other than energy production (woodfuel).
Value of wood fuel removal	Value of the wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

12.2 National data

12.2.1 Data sources

No information is available to report on this table.

12.2.2 Classification and definitions

12.2.3 Original data

12.3 Analysis and processing of national data

12.3.1 Estimation and forecasting

12.4 Reclassification into FRA 2005 classes

12.5 Data for National reporting table T12

FRA 2005 Categories	Value of roundwood removal (1000 USD)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Industrial roundwood	ID	ID	ID	ID	ID	ID
Woodfuel	ID	ID	ID	ID	ID	ID
TOTAL for Country	ID	ID	ID	ID	ID	ID

12.6 Comments to National reporting table T12

13 Table T13 – Non-wood forest product removal

13.1 FRA 2005 Categories and definitions

The following categories of non-wood forest products have been defined:

Category
Plant products / raw material
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
Animal products / raw material
9. Living animals
10. Hides, skins and trophies
11. Wild honey and bee-wax
12. Bush meat
13. Raw material for medicine
14. Raw material for colorants
15. Other edible animal products
16. Other non-edible animal products

13.2 National data

13.2.1 Data sources

No information is available to report on this table.

13.2.2 Classification and definitions

13.2.3 Original data

13.3 Analysis and processing of national data

13.3.1 Estimation and forecasting

13.4 Reclassification into FRA 2005 classes

13.5 Data for National reporting table T13

FRA 2005 Categories	Scale factor	Unit	NWFP removal		
			1990	2000	2005
Plant products / raw material					
1. Food			ID	ID	ID
2. Fodder			ID	ID	ID
3. Raw material for medicine and aromatic products			ID	ID	ID
4. Raw material for colorants and dyes			ID	ID	ID
5. Raw material for utensils, handicrafts & construction			ID	ID	ID
6. Ornamental plants			ID	ID	ID
7. Exudates			ID	ID	ID
8. Other plant products			ID	ID	ID
			ID	ID	ID
Animal products / raw material			ID	ID	ID
9. Living animals			ID	ID	ID
10. Hides, skins and trophies			ID	ID	ID
11. Wild honey and bee-wax			ID	ID	ID
12. Bush meat			ID	ID	ID
13. Raw material for medicine			ID	ID	ID
14. Raw material for colorants			ID	ID	ID
15. Other edible animal products			ID	ID	ID
16. Other non-edible animal products			ID	ID	ID

13.6 Comments to National reporting table T13

14 Table T14 – Value of non-wood forest product removal

14.1 FRA 2005 Categories and definitions

The following categories of non-wood forest products have been defined:

Category
Plant products / raw material
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
Animal products / raw material
9. Living animals
10. Hides, skins and trophies
11. Wild honey and bee-wax
12. Bush meat
13. Raw material for medicine
14. Raw material for colorants
15. Other edible animal products
16. Other non-edible animal products

14.2 National data

No data is available to report on this table.

14.2.1 Data sources

14.2.2 Classification and definitions

14.2.3 Original data

14.3 Analysis and processing of national data

14.3.1 Estimation and forecasting

14.4 Reclassification into FRA 2005 classes

14.5 Data for National reporting table T14

FRA 2005 Categories	Value of the of NWFP removed (1000 USD)		
	1990	**2000**	**2005**
Plant products / raw material			
1. Food	ID	ID	ID
2. Fodder	ID	ID	ID
3. Raw material for medicine and aromatic products	ID	ID	ID
4. Raw material for colorants and dyes	ID	ID	ID
5. Raw material for utensils, handicrafts & construction	ID	ID	ID
6. Ornamental plants	ID	ID	ID
7. Exudates	ID	ID	ID
8. Other plant products	ID	ID	ID
	ID	ID	ID
Animal products / raw material	ID	ID	ID
9. Living animals	ID	ID	ID
10. Hides, skins and trophies	ID	ID	ID
11. Wild honey and bee-wax	ID	ID	ID
12. Bush meat	ID	ID	ID
13. Raw material for medicine	ID	ID	ID
14. Raw material for colorants	ID	ID	ID
15. Other edible animal products	ID	ID	ID
16. Other non-edible animal products	ID	ID	ID
TOTAL	ID	ID	ID

14.6 Comments to National reporting table T14

15 Table T15 – Employment in forestry

15.1 FRA 2005 Categories and definitions

Category	Definition
Primary production of goods	Employment in activities related to primary production of goods, like industrial roundwood, woodfuel and non-wood forest products.
Provision of services	Employment in activities directly related to services from forests and woodlands.
Unspecified forestry activities	Employment in unspecified forestry activities.

15.2 National data

15.2.1 Data sources

No data is available to report on this table.

15.2.2 Classification and definitions

15.2.3 Original data

15.3 Analysis and processing of national data

15.3.1 Estimation and forecasting

15.4 Reclassification into FRA 2005 classes

15.5 Data for National reporting table T15

FRA 2005 Categories	Employment (1000 person-years)	
	1990	2000
Primary production of goods	ID	ID
Provision of services	ID	ID
Unspecified forestry activities	ID	ID
TOTAL		

15.6 Comments to National reporting table T15

16 Thematic reporting tables

If countries would like to submit additional reporting tables, these should be included here.