



**Forestry Department**

**Food and Agriculture Organization of the United Nations**

**GLOBAL FOREST RESOURCES  
ASSESSMENT 2010**

**COUNTRY REPORT**

**BARBADOS**

FRA2010/018  
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](http://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](mailto:Mette.LoycheWilkie@fao.org)

Readers can also use the following e-mail address: [fra@fao.org](mailto:fra@fao.org)

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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.

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## Report preparation and contact persons

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

<b>Name (FAMILY NAME, First name)</b>	<b>Institution / address</b>	<b>E-mail</b>	<b>Fax</b>	<b>Tables</b>
Wilson Michelle	Soil Conservation Unit, Ministry of Agriculture, Haggatts, St Andrew	michellegy22@gmail.com	246 422-9833	

# 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
Helmer, E. et al. 2007: Distribution of land cover and forest formations for St. Kitts, Nevis, St Eustatius, Grenada and Barbados for satellite imagery		Forest area in Barbados	2001	

## 1.2.2 Original data

Land-cover or forest formation	Barbados <sup>1</sup> (ha)
<b>Urban or built up land</b>	
High-Medium Density Urban or Built-up Land	3,840
Low Density Built-up Land (Rural or Residential)	5,231
<b>Herbaceous agriculture</b>	
Sugar cane	11,518
Minor crops	1,609
<b>Mixed and woody agriculture</b>	
Coconut Palm-Pasture	248
<b>Pasture and rangeland</b>	
Pasture, Hay or Inactive Agriculture (e.g. abandoned sugar cane)	8,658
Pasture, Hay or other Grassy Areas	2,459
Golf course	308
Drought Deciduous Woodland	1,081
<b>Drought deciduous and semi-deciduous forest, lowland or submontane</b>	
Deciduous, Evergreen Coastal and Mixed Forest or Shrubland, with or without Succulents, on Limestone or other substrates <sup>1</sup>	2,913
Drought Deciduous Forest/Shrub	263
Semi-deciduous and drought deciduous forest on limestone (including semi evergreen forest)	2,864
Semi-Deciduous Forest (includes Semi-Evergreen Forest)	277
<b>Seasonal evergreen and evergreen forest, lowlands or submontane</b>	
Seasonal Evergreen Forest	34
<b>Wetlands</b>	
Mangrove	6.9
Emergent Wetland	4
<b>No Vegetation</b>	
Quarries	201
Coastal Sand, Rock and Bare Soil	172
Bare Soil (including bulldozed land)	1,078
Water - Permanent	50
Cloud cover areas in final map	615
<b>Total</b>	<b>43,430<sup>2</sup></b>

<sup>1</sup> On Barbados, the class Deciduous, Evergreen Coastal and Mixed Forest or Shrub land, with or without Succulents, on Limestone or other substrates, includes a mosaic of deciduous and seasonal evergreen forest/shrub northeast of Mt. Hillaby.

<sup>2</sup> Table 3 Helmer, E. et al. 2007: Distribution of land cover and forest formations for St. Kitts, Nevis, St Eustatius, Grenada and Barbados from satellite imagery

## 1.3 Analysis and processing of national data

### 1.3.1 Calibration

Total land area according to FAOSTAT	43 000 ha
Calibration factor (43 430/43 000)	1.01

**Calibrated national data**

<b>Land-cover or forest formation</b>	<b>Calibrated area Barbados (ha)</b>
<b>Urban or built up land</b>	
High-Medium Density Urban or Built-up Land	3801.980
Low Density Built-up Land (Rural or Residential)	5179.208
<b>Herbaceous agriculture</b>	
Sugar cane	11403.960
Minor crops	1593.069
<b>Mixed and woody agriculture</b>	
Coconut Palm-Pasture	245.545
<b>Pasture and rangeland</b>	
Pasture, Hay or Inactive Agriculture (e.g. abandoned sugar cane)	8572.277
Pasture, Hay or other Grassy Areas	2434.654
Golf course	304.951
Drought Deciduous Woodland	1070.297
<b>Drought deciduous and semi-deciduous forest, lowland or submontane</b>	
Deciduous, Evergreen Coastal and Mixed Forest or Shrubland, with or without Succulents, on Limestone or other substrates <sup>1</sup>	2884.158
Drought Deciduous Forest/Shrub	260.396
Semi-deciduous and drought deciduous forest on limestone (including semi evergreen forest)	2835.644
Semi-Deciduous Forest (includes Semi-Evergreen Forest)	274.257
<b>Seasonal evergreen and evergreen forest, lowlands or submontane</b>	
Seasonal Evergreen Forest	33.663
<b>Wetlands</b>	
Mangrove	6.832
Emergent Wetland	3.960
<b>No Vegetation</b>	
Quarries	199.009
Coastal Sand, Rock and Bare Soil	170.297
Bare Soil (including bulldozed land)	1067.327
Water - Permanent	49.505
Cloud cover areas in final map	608.911
<b>Total</b>	<b>42999.90</b>

### 1.3.2 Estimation and forecasting

The 2001 data have been used for all reporting years.

### 1.3.3 Reclassification into FRA 2010 categories

National Classification	Forest	Other Wooded land	Other land
Drought deciduous woodland	100%		
Deciduous, evergreen Coastal and Mixed Forest or Shrubland, with or without Succulents, on Limestone or other substrates <sup>1</sup>	90%	10%	
Drought Deciduous Forest/Shrub	100%		
Semi-deciduous and drought deciduous forest on limestone (including semi evergreen forest)	100%		
Semi-Deciduous Forest (includes Semi-Evergreen Forest)	100%		
Seasonal Evergreen Forest	100%		
Mangrove	100%		
Emergent Wetland			
High-Medium Density Urban or Built-up Land			100%
Low Density Built-up Land (Rural or Residential)			100%
Sugar cane			100%
Minor crops (including sugar cane in Grenada)			100%
Coconut Palm-Pasture			100%
Pasture, Hay or Inactive Agriculture (e.g. abandoned sugar cane)	15%	5%	80%
Pasture, Hay or other Grassy Areas			100%
Golf course			100%
Quarries			100%
Coastal Sand, Rock and Bare Soil			100%
Bare Soil (including bulldozed land)			100%
Water - Permanent			100%
Cloud cover areas in final map			100%

### 1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	8.36	8.36	8.36	8.36
Other wooded land	0.65	0.65	0.65	0.65
Other land	33.99	33.99	33.99	33.99
...of which with tree cover	n.d.	n.d.	n.d.	n.d.
Inland water bodies	0	0	0	0
<b>TOTAL</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>



### 1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		Due to lack of data, the same figures have been used for all reporting years. However, the decrease of agricultural cultivation, lands have reverted to natural vegetation resulting in an increase in forest cover overtime
Other wooded land		
Other land		
Other land with tree cover		
Inland water bodies		

Other general comments to the table

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.
<b>Categories related to the holder of management rights of public forest resources</b>	
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
Lucas, C. 2000: EU/FAO Workshop on Data Collection and Outlook Effort For Forestry In The Caribbean 21 <sup>st</sup> -25 <sup>th</sup> February, Port Of Spain, Trinidad.	H	Forest area in Barbados	1998	
Research and Planning Barbados Land Tax Department	H	Land Ownership	2005	

### 2.2.2 Original data

Turners hall forest - 30 ha owned by the crown  
 Joes river forest - 40 ha donated to government

## 2.3 Analysis and processing of national data

### 2.3.1 Reclassification into FRA 2010 categories

Turners Hall Forest 100% forest 100% crown land  
 Joes River Forest 100% forest 100% government land  
 Remaining forest area is private.

## 2.4 Data for Table T2

**Table 2a - Forest ownership**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	n.a	0.07	0.07
Private ownership	n.a	8.29	8.29
...of which owned by individuals	n.a	n.a	n.a
...of which owned by private business entities and institutions	n.a	n.a	n.a
...of which owned by local communities	n.a	n.a	n.a
...of which owned by indigenous / tribal communities	n.a	n.a	n.a
Other types of ownership	n.a	n.a	n.a
<b>TOTAL</b>		<b>8.36</b>	<b>8.36</b>

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?	<input checked="" type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If No above, please describe below how the two differ:		

**Table 2b - Holder of management rights of public forests**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration	n.a	0.07	0.07
Individuals	n.a	n.a	n.a
Private corporations and institutions	n.a	n.a	n.a
Communities	n.a	n.a	n.a
Other	n.a	n.a	n.a
<b>TOTAL</b>	<b>n.a</b>	<b>0.07</b>	<b>0.07</b>

**2.5 Comments to Table T2**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership	Figures provided do not include natural expansion and natural regeneration due to the reduction in agricultural activities	
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.
<b>Categories of primary designated functions</b>	
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.
<b>Special designation and management categories</b>	
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
Lucas, C. 2000: EU/FAO Workshop on Data Collection and Outlook Effort For Forestry In The Caribbean 21 <sup>st</sup> -25 <sup>th</sup> February, Port Of Spain, Trinidad.	H		2000	

### 3.2.2 Original data

Protected forest = 300 ha

### 3.3 Analysis and processing of national data

#### 3.3.1 Reclassification into FRA 2010 categories

Protected forest =100% Conservation of biodiversity

Total forest area- Protected forest = Unknown function

#### 3.3.2 Estimation and forecasting

No changes were assumed for 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	0	0	0	0
Protection of soil and water	0	0	0	0
Conservation of biodiversity	0.3	0.3	0.3	0.3
Social services	0	0	0	0
Multiple use	0	0	0	0
Other (please specify in comments below the table)	0	0	0	0
No / unknown	8.06	8.06	8.06	8.06
<b>TOTAL</b>	<b>8.36</b>	<b>8.36</b>	<b>8.36</b>	<b>8.36</b>

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	n.a.	na	na	na
Forest area within protected areas	0.3	0.3	0.3	0.3
Forest area under sustainable forest management	n.a.	n.a.	n.a.	n.a.
Forest area with management plan	n.a.	n.a.	n.a.	n.a.

### 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		
Multiple use		
Other		
No / unknown designation		
Area of permanent forest estate		
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).
<b>Characteristics categories</b>	
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.
<b>Special categories</b>	
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
Eckelmann, C. 2001: Report of the Caribbean expert consultation on private forestry programmes – ideas to promote forest activities on private land. 28 <sup>th</sup> – 31 <sup>st</sup> August, Trinidad and Tobago	H		2001	
Lucas, C. 2004: Annual Report of Soil Conservation Unit for Period April 2003-March 2004	H		2003 - 2004	



Wilson, Michelle. 2005: Forestry Section Annual Report 2004-2005	H		2004 - 2005	
Wilson, Michelle. 2006: Forestry Section Annual Report 2005-2006	H		2005 - 2006	
Wilson, Michelle. 2007: Forestry Section Annual Report 2006-2007	H		2006 - 2007	

#### 4.2.2 Original data

There are no primary forests on Barbados.

Names of mahogany woodlots and some site characteristics.

Woodlots	Parish	Elevation above sea level (m)	Area (ha)
Cherry Tree Hill	St. Andrew	236	4.3
Bowen Wood	St. Andrew	242	18.0
Maynard Wood	St. Peter	39	0.25
The Whim	St. Peter	33	0.5
Baker's Wood	St. Peter	152	7.0
Westmoreland	St. James	100	1.2
Mt. Standfast Wood	St. James	56	1.2
Gregg Farm Wood	St. Andrew	276	0.5
Jack-in-a Box Gully	St. Thomas	176	0.64
Belle	St. Michael	29	0.5
Mt. Tabor Wood	St. John	242	0.5
Pool Factory Wood	St. John	215	3.0
Codrington College	St. John	139	2.4
Kendal Wood	St. John	151	0.64
Summerdale Gully	St. Philip	106	0.56
Sunbury Wood	St. Philip	61	0.24
Skeene's Hill Wood	Christ Church	85	0.6
<b>TOTAL</b>			<b>42.03</b>

Reforestation activities conducted by Soil Conservation Unit 2003 – 2007

Year	Total area planted (ha)
2003 – 2004	6.9
2004 – 2005	10.3
2005 – 2006	13.8
2006 – 2007	8.35
Total	39.15 ha

### 4.3 Analysis and processing of national data

#### 4.3.1 Calibration

#### 4.3.2 Estimation and forecasting

#### 4.3.3 Reclassification into FRA 2010 categories

Mahogany was introduced into the Caribbean in the late 1700s so it will be classified as an introduced species

Soil Conservation Unit established agro-forestry plots with a mixture of indigenous and introduced species during 2003 – 2007. The ratio of indigenous to introduced species planted is 2:3

### 4.4 Data for Table T4

**Table 4a**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	0	0	0	0
Other naturally regenerated forest	8.32	8.32	8.30	8.28
...of which of introduced species	Na	Na	Na	Na
Planted forest	0.042	0.042	0.059	0.081
...of which of introduced species	0.042	0.042	0.059	0.081
<b>TOTAL</b>	<b>8.36</b>	<b>8.36</b>	<b>8.36</b>	<b>8.36</b>

**Table 4b**

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	na	na	na	na
Mangroves (Forest and OWL)	0.007	0.007	0.007	0.007
Bamboo (Forest and OWL)	na	na	na	na

#### 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		
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
Lucas, C. 2004: Annual Report of Soil Conservation Unit for Period April 2003-March 2004	H		2003 - 2004	
Wilson, Michelle. 2005: Forestry Section Annual Report 2004-2005	H		2004 - 2005	
Wilson, Michelle. 2006: Forestry Section Annual Report 2005-2006	H		2005 - 2006	
Wilson, Michelle. 2007: Forestry Section Annual Report 2006-2007	H		2006 - 2007	

#### 5.2.2 Original data

Reforestation activities conducted by Soil Conservation Unit 2003 – 2007

Year	Total area planted (ha)
2003 – 2004	6.9
2004 – 2005	10.3
2005 – 2006	13.8
2006 – 2007	8.35
Total	39.15 ha

### 5.3 Analysis and processing of national data

The figure in table T5 is a four year average commencing with 2003-2004. Average was taken from financial year rather than calendar year. Financial year commences in April and culminates in March

### 5.4 Data for Table T5

FRA 2010 Categories	Annual forest establishment (hectares/year)			...of which of introduced species <sup>1)</sup> (hectares/year)		
	1990	2000	2005	1990	2000	2005
Afforestation	Na	Na	9.79			
Reforestation	Na	Na	0			
...of which on areas previously planted	Na	Na	Na			
Natural expansion of forest	na	na	na			

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

### 5.5 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**

No data is available for this reporting table

## **7 Table T7 – Biomass stock**

No data is available for this reporting table

## **8 Table T8 – Carbon stock**

No data is available for this reporting table

## 9 Table T9 – Forest fires

### 9.1 FRA 2010 Categories and definitions

Category	Definition
Number of fires	Average number of vegetation fires per year in the country.
Area affected by fire	Average area affected by vegetation fires per year in the country.
Vegetation fire (supplementary term)	Any vegetation fire regardless of ignition source, damage or benefit.
Wildfire	Any unplanned and/or uncontrolled vegetation fire.
Planned fire	A vegetation fire regardless of ignition source that burns according to management objectives and requires limited or no suppression action.

### 9.2 National data

#### 9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Clarke, G. 2008 Information compiled by the research and planning unit of the Barbados Fires Service	H		2005 - 2008	

#### 9.2.2 Classification and definitions

National class	Definition
Cane fires	Fires affecting sugar cane plantations
Grass fires	All fires affecting vegetation excluding individual trees and sugar cane
Tree fires	Fires affecting a single tree

### 9.3 Analysis and processing of national data

Figures represent a four year average from 2005 to 2008.

## 9.4 Data for Table T9

**Table 9a**

FRA 2010 category	Annual average for 5-year period					
	1990		2000		2005	
	1000 hectares	number of fires	1000 hectares	number of fires	1000 hectares	number of fires
Total land area affected by fire	na	na	na	na	2.743	1482
... of which on forest	na	na	na	na	na	na
... of which on other wooded land	na	na	na	na	na	na
... of which on other land	na	na	na	na	na	na

**Table 9b**

FRA 2010 category	Proportion of forest area affected by fire (%)		
	1990	2000	2005
Wildfire	100%	100%	100%
Planned fire	0	0	0

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

## 9.5 Comments to Table T9

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Area affected by fire		
Number of fires		
Wildfire / planned fire		

Other general comments to the table



## 10 Table T10 – Other disturbances affecting forest health and vitality

### 10.1 FRA 2010 Categories and definitions

Term	Definition
Disturbance	Damage caused by any factor (biotic or abiotic) that adversely affects the vigour and productivity of the forest and which is not a direct result of human activities.
Invasive species	Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health.
Category	Definition
Disturbance by insects	Disturbance caused by insect pests.
Disturbance by diseases	Disturbance caused by diseases attributable to pathogens, such as bacteria, fungi, phytoplasma or virus.
Disturbance by other biotic agents	Disturbance caused by biotic agents other than insects or diseases, such as wildlife browsing, grazing, physical damage by animals, etc.
Disturbance caused by abiotic factors	Disturbances caused by abiotic factors, such as air pollution, snow, storm, drought, etc.

### 10.2 National data

#### 10.2.1 Original data

No significant disturbances have been recorded during the period 1990-2005.

### 10.3 Data for Table T10

**Table 10a – Disturbances**

FRA 2010 category	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects	0	0	0
Disturbance by diseases	0	0	0
Disturbance by other biotic agents	0	0	0
Disturbance caused by abiotic factors	0	0	0
<b>Total area affected by disturbances</b>	<b>0</b>	<b>0</b>	<b>0</b>

Notes: 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.

The total area affected by disturbances is not necessarily the sum of the individual disturbances as these may be overlapping.

**Table 10b – Major outbreaks of insects and diseases affecting forest health and vitality**

Description / name	Tree species or genera affected (scientific name)	Year(s) of latest outbreak	Area affected (1000 hectares)	If cyclic, approx. cycle (years)

Note: Area affected refers to the total area affected during the outbreak.

**Table 10c – Area of forest affected by woody invasive species**

Scientific name of woody invasive species	Forest area affected 2005 (1000 hectares)
<i>Leucaena leucocephala</i>	n.a.

Note: The total forest area affected by woody invasive species is not necessary the sum of the values above, as these may be overlapping.

### 10.4 Comments to Table T10

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Disturbance by insects		
Disturbance by diseases		
Disturbance by other biotic agents		
Disturbance caused by abiotic factors		
Major outbreaks		
Invasive species		

Other general comments to the table

## **11 Table T11 – Wood removals and value of removals**

No data are available for this reporting table. However, removals are insignificant and mainly for household use and for the local craft industry. Also the use of wood for fuel is insignificant.

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

Plant parts (leaves, stems, etc) are collected from the forest for medicinal purposes and for use in the local craft industry but quantity and scale are difficult to capture.

## 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 Original data

Outside the Soil Conservation Unit, Forestry section (whose employees are reported under table T15) there are very few persons working directly with primary forestry activities. 5 persons are working with coastal planting within the National Conservation Commission and that is the figure reported here.

### 13.3 Data for Table T13

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods	na	Na	0.005
...of which paid employment	na	na	0.005
...of which self-employment	na	na	na
Employment in management of protected areas	na	na	na

### 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	The figure shown reflect only those individuals working with coastal planting within the National Conservation Commission.	
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	A 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 society.
Forest policy statement	A document that describes the objectives, priorities and means for implementation of the forest policy.
National forest programme (nfp)	A generic expression that refers to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels. The national forest programme provides a framework and guidance for country-driven forest sector development with participation of all stakeholders and in consistence with policies of other sectors and international policies.
Law (Act or Code) on forest	A 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)			
<b>Forest policy statement with national scope</b>		Yes	
	x	No	
If Yes above, provide:	Year of endorsement		
	Reference to document		
<b>National forest programme (nfp)</b>		Yes	
	x	No	
If Yes above, provide:	Name of nfp in country		
	Starting year		
	Current status		In formulation
			In implementation
			Under revision
			Process temporarily suspended
Reference to document or web site			
<b>Law (Act or Code) on forest with national scope</b>		Yes, specific forest law exists	
	x	Yes, but rules on forests are incorporated in other (broader) legislation	
		No, forest issues are not regulated by national legislation	
If Yes above, provide:	Year of enactment		
	Year of latest amendment		
	Reference to document		

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.	
<b>Sub-national forest policy statements</b>	Yes
	x No
If Yes above, indicate the number of regions/states/provinces with forest policy statements	
<b>Sub-national Laws (Acts or Codes) on forest</b>	Yes
	No
If Yes above, indicate the number of regions/states/provinces with Laws on forests	

### 14.3 Comments to Table T14

Variable / category	Comments related to data, definitions, etc.
Forest policy statement with national scope	
National forest programme (nfp)	
Law (Act or Code) on forest with national scope	
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 – Institutions

FRA 2010 Category	2008	
Minister responsible for forest policy formulation : please provide full title	Mr Haynesley Benn Minister of Agriculture  Mr Dennis Lowe Minister of Environment Drainage and Water	
Level of subordination of Head of Forestry within the Ministry		1 <sup>st</sup> level subordination to Minister
		2 <sup>nd</sup> level subordination to Minister
	x	3 <sup>rd</sup> level subordination to Minister
		4 <sup>th</sup> or lower level subordination to Minister
Other public forest agencies at national level	Ministry of Environment Drainage and Water Town and Country Planning	
Institution(s) responsible for forest law enforcement	Soil Conservation Unit, National Conservation Commission, Environmental Protection Agency, Coastal Zone Management Unit, Barbados Police Force	

Table 15b – Human resources

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total staff	na	na	na	na	24	50%
...of which with university degree or equivalent	na	na	na	na	1	100%

Notes:

1. Includes human resources within public forest institutions at sub-national level
2. 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	Minister Benn is responsible for Ministry of Agriculture which has responsibility for the Forestry Section, however, policy formulation falls dually under Ministry of Environment Drainage and Water	
Level of subordination of Head of Forestry within the Ministry	The Forestry Section is a sub department in a department of the Ministry of Agriculture	
Other public forest agencies at national level	Ministry of Environment, Drainage and Water has responsibility for all international environmental convents; management of parks and beaches; coastal and marine management; management of bio diversity; environmental protection; and management of special environmental and ecological area. Town and Country Planning has responsibility for all land use	
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
Forest-related education	Post-secondary education programme with focus on forests and related subjects.
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 primarily implementing research programmes on forest matters. Funding is mainly public or channelled through public institutions.

### 16.2 National data

#### 16.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Personal communication with Peter Harewood executive officer Soil Conservation Unit	H		11/2008	

### 16.3 Data for Table T16

FRA 2010 Category	Graduation <sup>1)</sup> of students in forest-related education					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Master's degree (MSc) or equivalent	0		0		0	
Bachelor's degree (BSc) or equivalent	0		0		0	
Forest technician certificate / diploma	0		0		0	
FRA 2010 Category	Professionals working in publicly funded forest research centres <sup>2)</sup>					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Doctor's degree (PhD)	na		0		0	
Master's degree (MSc) or equivalent	na		0		0	
Bachelor's degree (BSc) or equivalent	na		1	100%	1	100%

Notes:

1. Graduation refers to the number of students that have successfully completed a Bachelor's or higher degree or achieved a certificate or diploma as forest technician.
2. Covers degrees in all sciences, not only forestry.

#### 16.4 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Graduation of students in forest-related education	There is no forest-related education in Barbados.	
Professionals working in public forest research centres		

Other general comments to the table

## **17 Table T17 – Public revenue collection and expenditure**

No data are available for this reporting table.