



Forestry Department

Food and Agriculture Organization of the United Nations

**GLOBAL FOREST RESOURCES
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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 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).

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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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Introduction

The Republic of Mauritius is a group of islands in the South West of the Indian Ocean, consisting of the main island of Mauritius, Rodrigues and several outer islands located at distances greater than 350 km from the main island. Mauritius has been successively a Dutch, French and British colony. It became independent of Britain on 12th March 1968 and acceded to the status of Republic within the commonwealth on 12th March 1992. The country has a Westminster type of Parliamentary government. The official language is English, but French is widely spoken.

The population, estimated at 1.3 million, comprises Indo-Mauritians, General population, i.e, people of mixed European and African origin and Sino-Mauritians. The islands of Mauritius and Rodrigues, with a total area of 1,969 sq km, have an overall population density of 638 persons per sq km. About 43% of the area is allocated to agriculture, 25% is occupied by built-up areas and 2% by public roads; the remaining consists of abandoned canefields, forests, scrub land, grasslands and grazing lands, reservoirs and ponds, swamps and rocks.

The climate is sub-tropical. The average mid-day temperature on the central plateau varies from 22°C in August to 28°C in January. Near the coastal regions, temperatures are about 4-5°C higher.

The FRA exercise 2010 has been an opportunity to update statistics relating to the forest sector in Mauritius and analyze trends. The forestry sector includes all activities dependent on forests, trees and other woody vegetation, and all industries based on them. The sector has numerous interactions and linkages with other sectors, such as agriculture, water, environment, tourism and communications.

The major government institutions responsible for the management of State forest lands, under the Ministry of Agro-Industry and Fisheries is the Forestry Service concentrating its efforts in sustainable exploitation of forest resources, conservation and recreation.

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 metres 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 metres 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 metres 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
Annual Reports of the Forestry Service	M	Forest cover	1990 to 2006	Assessment is also based on expert knowledge
National Remote Sensing Centre	M	Inland water bodies	1998	-

1.2.2 Classification and definitions

National class	Definition
Forest plantations	Plantations of exotic species
Natural Forests	Mostly native forests, severely invaded by alien plant species.
Scrub Lands	Very degraded forests with scattered trees and shrubs.
Total Forest Land	Includes all land classified as “Forest plantations”, “Natural Forests” and “Scrub Lands.”
Non-Forest Land	Includes all land not classified as Forest Land, e.g., barren land, agricultural land, built-up areas, etc.

Note:

1. In order to make it clearer and easier to report on, the category “Native Forests & Other Protected Areas”, as reported in FRA 2005, has been replaced by “Natural Forests” and data regarding same have been amended accordingly.

1.2.3 Original data

National Class	Area in hectares			
	1990	2000	2005	2006
Forest Plantations	14 999	14 959	14 654	14 674
Natural Forests	23 770	23 770	20 255	20 231
Scrub Lands	17 954	17 900	12 276	12 276
Total Forest Land	56 723	56 629	47 185	47 181
Non Forest Land	146 277	146 071	155 515	155 519
Total Land Area	203 000	202 700	202 700	202 700

Notes:

1. Figures previously reported in FRA 2005 have been amended accordingly as per revised data from Annual Reports of the Forestry Service.
2. The total land area changed from 203 000 ha in 1990 to 202 700 ha in 2000 due to the building of the Midlands dam which occupies 300 ha, thus increasing inland water bodies to 1300 ha.

1.3 Analysis and processing of national data

1.3.1 Calibration

A request has been sent to FAOSTAT in order to change the official figures of land area from 203 000 ha to 202 700 ha. Consequently, no calibration is needed.

1.3.2 Estimation and forecasting

The 2005 and 2006 figures above were used to extrapolate 2010.

National Classes	Extent in hectares			
	1990	2000	2005	2010
Forest Plantations	14 999	14 959	14 654	14 754
Natural Forests	23 770	23 770	20 255	20 255
Scrub Lands	17 954	17 900	12 276	12 156
Total Forest Land	56 723	56 629	47 185	47 165
Non Forest Land	146 277	146 071	155 515	155 535
Total Land Area	203 000	202 700	202 700	202 700

1.3.3 Reclassification into FRA 2010 categories

National Classes	Forest	OWL	OL
Forest Plantations	100%		
Natural Forests	100%		

Scrub Lands		100%	
Non Forest Land			100%

Notes:

1. The reclassification matrix has been amended as per change in classification reported in 1.2.2.
2. Assessment is based on expert knowledge.

Results after reclassification:

FRA Categories	Area in hectares			
	1990	2000	2005	2010
Forest	38 769	38 729	34 909	35 009
OWL	17 954	17 900	12 276	12 156
OL	146 277	146 071	155 515	155 535
Inland water	1 000	1 300	1 300	1 300
Total Country area	204 000	204 000	204 000	204 000

1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	38.8	38.7	34.9	35.0
Other wooded land	17.9	17.9	12.3	12.2
Other land	146.3	146.1	155.5	155.5
...of which with tree cover	n/a	n/a	n/a	n/a
Inland water bodies	1.0	1.3	1.3	1.3
TOTAL	204	204	204	204

1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		A sharp decline in the forest area is noticed since the year 2000, mainly due to infrastructural developments, e.g. built up areas, roads, agriculture, reservoirs, etc. As from year 2004 to 2006 this category has remained more or less the same due to the implementation of sustainable forest management.
Other wooded land		As from year 2004 to 2006, no significant change is noted due to the implementation of sustainable forest management.
Other land		The increase in this category is mainly due to conversion of forest land to other land use, such as built- up areas, roads, parking lots, agriculture, etc.
Other land with tree cover	Data regarding “OLWTC” could not be obtained since the areas concerned are scattered over the whole island, making the survey very time- consuming. Also, the areas being very often in patches of less than 0.5 ha, do not qualify them to be	

	taken into account.	
Inland water bodies	The total land area changed from 203 000 ha in 1990 to 202 700 ha in 2000 due to the building of the Midlands dam which occupies 300 ha, thus increasing inland water bodies to 1300 ha.	

Other general comments to the table

After the dismantling of the sugar protocol with the EU, experts agree to the fact that some 5000 ha of sugar cane lands will be converted back to forestry activities.

Expected year for completion of ongoing/planned national forest inventory and/or RS survey / mapping

Field inventory	Planned this year, i.e 2009
Remote sensing survey / mapping	Forest Land Information System (FLIS) in progress since 2007

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 (sub-category of Private ownership)	Forest owned by individuals and families.
Private business entities and institutions (sub-category of Private ownership)	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 (sub-category of Private ownership)	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 (sub-category of Private ownership)	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
Annual Reports of the Forestry Service	M	Private and Public ownership	1990 to 2006	Information is also based on expert knowledge

2.2.2 Classification and definitions

According to local experts, the national data sources use the same classes and definitions as those of FRA 2010.

2.2.3 Original data

National category	Area in hectares								
	Public			Private			Total		
	1990	2000	2005	1990	2000	2005	1990	2000	2005
Forests plantation	12 491	12 359	12 054	2 508	2 600	2 600	14 999	14 959	14 654
Natural Forests	8 563	8 585	8 314	15 207	15 183	11 943	23 770	23 770	20 255
Scrub lands	1 129	1 145	1 817	16 825	16 755	10 459	17 954	17 900	12 276
Total Forests & OWL	22 183	22 089	22 185	34 540	34 540	25 000	56 723	56 629	47 185

2.3 Analysis and processing of national data

2.3.1 Calibration

Calibration is not required.

2.3.2 Estimation and forecasting

Estimation and forecasting for year 2010 are not required.

2.3.3 Reclassification into FRA 2010 categories

According to T1, the following reclassification matrix was obtained:

National Classes	Forest	OWL	OL
Forest Plantations	100%		
Natural Forests	100%		
Scrub Lands		100%	
Non Forest Land			100%

These percentages were applied to the original data in 2.2.3 giving the following results:

Ownership of Forests

National Classes	Area in hectares								
	Public			Private			Total		
	1990	2000	2005	1990	2000	2005	1990	2000	2005
Forest Plantations	12 491	12 359	12 054	2 508	2 600	2 600	14 999	14 959	14 654
Natural Forests	8 563	8 585	8 314	15 207	15 185	11 941	23 770	23 770	20 255
Total Forest	21 054	20 944	20 368	17 715	17 785	14 541	38 769	38 729	34 909

2.4 Data for Table T2**Table 2a - Forest ownership**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	21.1	20.9	20.4
Private ownership	17.7	17.8	14.5
...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	0	0	0
...of which owned by indigenous / tribal communities	0	0	0
Other types of ownership	0	0	0
TOTAL	38.8	38.7	34.9

Note: If other types of ownership are 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	21.1	20.9	20.4
Individuals	0	0	0
Private corporations and institutions	0	0	0
Communities	0	0	0
Other	0	0	0
TOTAL	21.1	20.9	20.4

2.5 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		With the implementation of Sustainable Forest Management, the extent regarding this category has undergone no significant change except for the year 2005 which showed a slight decrease in forest lands due to the creation of roads, parking lots, grazing areas, etc.
Private ownership		A sharp decline in the extent of private forests is observed due to land conversion for other uses. Private owners are reluctant to invest in afforestation as this is a long term investment exposed to a lot of risks. Also, because of the rising value of land in Mauritius, private forest owners are more inclined to convert their forest lands to more profitable land use such as ecotourism and housing development than to improve and manage them for timber production.
Other types of ownership	Not applicable	
Management rights	Although large extents of public forests are leased to private companies, mainly for deer ranching, the management rights of these forests have always remained under public administration.	There is no related trend.

Other general comments to the table

Due to revised and updated data as per Annual Reports (1990-2006), previous figures reported in FRA 2005 have been amended accordingly. In Mauritius, there are only 2 types of forest ownership. The forest areas are either State- owned or privately- owned by individuals or business entities. There are no communal forests and no communities living within or dependent on the forests.

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
Annual Reports of the Forestry Service	M	Extent and functions of forests	1990-2006	Also based on expert knowledge

3.2.2 Classification and definitions

According to the Annual Reports of the Forestry Service, and based on local expert knowledge, our classification and definitions are as hereunder:

National class	Definition
Production Forest	Forests primarily used for wood production, mainly exotic species.
Protection of soil and water	Forests performing the function of the protection of soil and water in water catchment areas, mountains and river reserves.
Conservation of biodiversity	Consists of areas where conservation programmes are carried out e.g., Nature Reserves and Conservation Management Areas.
Social Services	These are areas used for recreational purposes and eco-tourism.

Note: Based on local expert advice, it is assumed that the above definitions correspond with FRA 2010 requirements.

3.2.3 Original data

There was no original data that was compiled according to the national classes above. The following original data was used as an input to develop a table that corresponds with the national classes in 3.2.2. Based on expert knowledge, 30% of the forests area is designated for production purpose.

National category	Area in hectares		
	1990	2000	2005
Production areas in Forests	11 631	11 619	10 473
Protected areas in Forests	27 138	27 110	24 436
OWL	17 954	17 900	12 276
Total Forest Land	56 723	56 629	47 185

3.3 Analysis and processing of national data

3.3.1 Calibration

Calibration is not required.

3.3.2 Estimation and forecasting

Figures for year 2010 have been derived from Table T1 using the same assumption as above.

National category	Area in hectares			
	1990	2000	2005	2010
Production areas in Forests	11 631	11 619	10 473	10 503
Protected areas in Forests	27 138	27 110	24 436	24 506
OWL	17 954	17 900	12 276	12 156
Total Forest Land	56 723	56 629	47 185	47 165

Primary designation

Using the original table above as inputs, the following assumptions were made:

National category	Production	Protection of soil and Water	Conservation of biodiversity	Social	Multiple use
Production areas in Forests	100%				
Protected areas in Forests		60%	20%	10%	10%
OWL		60%	25%	5%	10%

Applying the above assumptions to the areas of Forests and OWL in T1 (and extrapolating for 2010), the following primary designation table was generated:

Primary Function FRA categories	Area in hectares							
	Forests				OWL			
	1990	2000	2005	2010	1990	2000	2005	2010
Production	11 631	11 619	10 473	10 503	0	0	0	0
Protection of soil and water	16 283	16 266	14 661	14 704	10 772	10 740	7 365	7 294
Conservation of biodiversity	8 141	8 133	6 598	6 617	6 284	6 265	3 867	3 829
Social services	2 714	2 711	2 444	2 450	898	895	614	608
Multiple use	0	0	733	735	0	0	430	425
Total	38 769	38 729	34 909	35 009	17 954	17 900	12 276	12 156

3.3.3 Reclassification into FRA 2010 categories

No further reclassification is required.

3.4 Data for Table T3

Table 3a – Primary designated function

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	11.6	11.6	10.5	10.5
Protection of soil and water	16.3	16.3	14.7	14.7
Conservation of biodiversity	8.1	8.1	6.6	6.6
Social services	2.7	2.7	2.4	2.5
Multiple use	0	0	0.7	0.7
Other (please specify in comments below the table)	0	0	0	0
No / unknown	0	0	0	0
TOTAL	38.8	38.7	34.9	35.0

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	0	0	0	0
Forest area within protected areas	0	0	0	0
Forest area under sustainable forest management	15	15	14	14
Forest area with management plan	5	7	8	8

3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production		The area of forest plantations is higher than the production areas because forest found on sloppy lands and catchments areas are not exploited of their timber, in order to benefit from their environmental services of soil and water protection.
Protection of soil and water		
Conservation of biodiversity		
Social services		
Multiple use		
Other		
No / unknown designation	Not applicable	
Area of permanent forest estate	Such areas are referred to as “national forests” in Mauritius but none has been declared to date.	
Forest area within protected areas	Not applicable.	
Forest area under sustainable forest management	Includes all areas under silviculture.	No marked change is noted.
Forest area with management plan	Includes nature reserves, national parks and islet national parks	An increase is noted in this category with the creation of national parks.

Other general comments to the table

The trend regarding the protected areas has been stabilized as from the year 2005 with the implementation of conservation programmes.

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
Annual Report of the Forestry Service	M	Classification of forests	1990-2006	Estimation is based on local expert knowledge
FRA 2005 Thematic study on mangroves (Mauritius)	H	Survey on mangrove forests	1990-2004	Field measurements were effected

4.2.2 Classification and definitions

According to the above data sources and local expert knowledge, it is assumed that the national classification and definitions correspond with FRA 2010 requirements.

4.2.3 Original data

Although original data regarding “Forest characteristics” is available, there is no distinctive classification as per FRA 2010 requirements. Nevertheless, since primary forest is inexistent in Mauritius, the “Total forest land” minus the extent of “Forest plantations”(from T1) gives the area covered by “ Other naturally regenerated forests”, which now includes both the semi-natural and modified natural forests as categorised in FRA 2005.

4.3 Analysis and processing of national data

4.3.1 Calibration

Calibration is not required

4.3.2 Estimation and forecasting

FRA 2010 Categories	Forest area (hectares)			
	1990	2000	2005	2010
Primary forest	0	0	0	0
Other naturally regenerated forest	23 770	23 770	20 255	20 255
...of which of introduced species	n/a	n/a	n/a	n/a
Planted forest	14 999	14 959	14 654	14 754
...of which of introduced species	n/a	n/a	n/a	n/a
TOTAL	38 769	38 729	34 909	35 009

4.3.3 Reclassification into FRA 2010 categories

No further reclassification is required.

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	23.8	23.8	20.3	20.2
...of which of introduced species	n/a	n/a	n/a	n/a
Planted forest	15.0	14.9	14.6	14.8
...of which of introduced species	n/a	n/a	n/a	n/a
TOTAL	38.8	38.7	34.9	35.0

Table 4b

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	0.07	0.09	0.12	0.16
Bamboo (Forest and OWL)	0.01	0.01	0.01	0.01

4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest	As a result of human impact on our forest ecosystems, Primary forests have disappeared in Mauritius	
Other naturally regenerating forest		
Planted forest		No significant change in extent is noted regarding this category as a result of the implementation of sustainable forest management
Rubber plantations	Not applicable	
Mangroves		Reforestation programme which started in the 80's, to restore Mangrove vegetation, is still operational.
Bamboo	No data is available. Figures are based on expert estimate.	

Other general comments to the table

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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
Annual Reports of the Forestry Service	M	Management of Forest plantations	1988-2006	

5.2.2 Classification and definitions

According to local experts, it is assumed that the national classification and definitions correspond with FRA 2010 requirements.

5.2.3 Original data

Data has been compiled from Annual Reports of the Forestry Service (1988-2006) as hereunder:

Categories	Forest establishment (ha)						...of which of introduced species (ha)					
	1988 - 1992	Av. 1990	1998 - 2002	Av. 2000	2003 - 2006	Av. 2005	1988 - 1992	Av. 1990	1998 - 2002	Av. 2000	2003 - 2006	Av. 2005
Afforestation	706	141	40	8	2	0.5	706	141	40	8	0	0
Reforestation	318	64	682	136	392	98	318	64	682	136	354	88
...of which on areas previously planted	318	64	682	136	392	98	318	64	682	136	354	88
Natural expansion of forest	0	0	0	0	0	0	0	0	0	0	0	0

Note: A total extent of about 1.5 hectares (not included in the above table) has been planted with indigenous species in school corners as an awareness campaign to sensitize the younger generation.

5.3 Analysis and processing of national data

5.3.1 Calibration

Calibration is not required.

5.3.2 Estimation and forecasting

Estimation and forecasting for year 2010 are not required

5.3.3 Reclassification into FRA 2010 categories

No further reclassification is required since the whole extent of “Forest plantations” is already classified as “Forest” in the FRA 2010 categories as per 1.3.2.

5.4 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	141	8	0.5	141	8	0
Reforestation	64	136	98	64	136	88
...of which on areas previously planted	64	136	98	64	136	88
Natural expansion of forest	0	0	0	0	0	0

Note: The figures for the reporting years refer to the averages for the 5-year periods 1988-1992 and 1998-2002 and 4-year period 2003-2006.

5.5 Comments to Table T5

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Afforestation		Afforestation is today barely significant due to limited land resource.
Reforestation	The reforestation programmes are realised mainly with exotic species since they are fast-growing. Indigenous species are gradually being introduced as from 2003.	No definite trend is noted. Re-establishment of forests is subject to the extent of forest areas exploited.
Natural expansion of forest		Insignificant

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
Annual Reports of the Forestry Service	M	Extent of forests	1990-2007	Field exercises were carried out to determine the growing stock for each species and then compiled for the whole forest area.

6.2.2 Classification and definitions

According to expert knowledge, it is assumed that the national classification and definitions correspond with FRA 2010 requirements.

6.2.3 Original data

Year 2003

Species	Pine	Eucalyptus	Tecoma	Filao	Cedar	Araucaria	Others	Forest	OWL.
Average D.B.H. (cm)	20	20	24	18	20	32	18	-	14
Extent (ha)	7 255	5 313	1 518	290	264	198	21 897	36 735	15 200
Average Growing Stock Per ha (m ³ /ha)	128	93	150	132	78	330	56	82	28
Growing Stock (m ³)	928 640	494 109	227 700	38 280	20 592	65 340	1 226 232	3 000 893	425600

Notes:

There is no record of growing stock data for 1990 and 2000. Field exercises were effected in 2003 to determine the growing stock of the main species individually and subsequently, the average growing stock per hectare for each species, for "Others" and for "Owl" were calculated and this has been considered as the Original National Data for 2003.

6.3 Analysis and processing of national data

6.3.1 Calibration

Calibration is not required.

6.3.2 Estimation and forecasting

GROWING STOCK - YEAR 1990

Category	Type	Species	Extent (ha)	Average growing stock per ha (m ³)	Growing Stock (m ³)
Forest	Plantation	Pinus elliottii	7 855	128	1 005 440
	Plantation	Eucalyptus spp.	4 548	93	422 964
	Plantation	Cryptomeria japonica	959	78	74 802
	Plantation	Tabebuia pallida	800	150	120 000
	Plantation	Araucaria spp.	626	330	206 580
	Plantation	Casuarina equisetifolia	211	132	27 852
	Natural	Others(mostly native forests severely invaded by alien plant species)	23 770	56	1 331 120
Other Wooded Land (OWL)	Scrub Lands	Mostly exotic species	17 954	28	502 712
TOTAL			56 723		3 691 470

GROWING STOCK - YEAR 2000

Category	Type	Species	Extent (ha)	Average growing stock per ha (m ³)	Growing Stock (m ³)
Forest	Plantation	Pinus elliottii	8 078	128	1 033 984
	Plantation	Eucalyptus spp.	4 260	93	396 180
	Plantation	Cryptomeria japonica	959	78	74 802
	Plantation	Tabebuia pallida	800	150	120 000
	Plantation	Araucaria spp.	638	330	210 540
	Plantation	Casuarina equisetifolia	224	132	29 568
	Natural	Others(mostly native forests severely invaded by alien plant species)	23 770	56	1 331 120
Other Wooded Land (OWL)	Scrub Lands	Mostly exotic species	17 900	28	501 200
TOTAL			56 629		3 697 394

GROWING STOCK - YEAR 2005

Category	Type	Species	Extent (ha)	Average growing stock per ha (m ³)	Growing Stock (m ³)
Forest	Plantation	Pinus elliottii	8 143	128	1 042 304
	Plantation	Eucalyptus spp.	3 824	93	355 632
	Plantation	Cryptomeria japonica	967	78	75 426
	Plantation	Tabebuia pallida	849	150	127 350
	Plantation	Araucaria spp.	645	330	212 850
	Plantation	Casuarina equisetifolia	226	132	29 832
	Natural	Others(mostly native forests severely invaded by alien plant species)	20 255	56	1 134 280
Other Wooded Land (OWL)	Scrub Lands	Mostly exotic species	12 276	28	343 728
TOTAL			47 185		3 321 402

GROWING STOCK - YEAR 2010

Category	Type	Species	Extent (ha)	Average growing stock per ha (m ³)	Growing Stock (m ³)
Forest	Plantation	Pinus elliottii	8 143	128	1 042 304
	Plantation	Eucalyptus spp.	3 924	93	364 932
	Plantation	Cryptomeria japonica	967	78	75 426
	Plantation	Tabebuia pallida	849	150	127 350
	Plantation	Araucaria spp.	645	330	212 850
	Plantation	Casuarina equisetifolia	226	132	29 832
	Natural	Others(mostly native forests severely invaded by alien plant species)	20 255	56	1 134 280
Other Wooded Land (OWL)	Scrub Lands	Mostly exotic species	12 156	28	340 368
TOTAL			47 165		3 327 342

Note: According to experts, with the dismantling of the sugar protocol and the release of sugar cane lands, about 100 ha of marginal lands is expected to be planted with Eucalyptus species by the year 2010.

FOREST

		1990	2000	2005	2010
Conifers	Extent (ha)	9 440	9 675	9 755	9 755
	Growing stock (m ³)	1 286 822	1 319 326	1 330 580	1 330 580
Broadleaves	Extent (ha)	29 329	29 054	25 154	25 254
	Growing stock (m ³)	1 901 936	1 876 868	1 647 094	1 656 394
Total Growing stock (m³)		3 188 758	3 196 194	2 977 674	2 986 974

OWL

		1990	2000	2005	2010
Conifers	Extent (ha)	0	0	0	0
	Growing stock (m ³)	0	0	0	0
Broadleaves	Extent (ha)	17 954	17 900	12 276	12 156
	Growing stock (m ³)	502 712	501 200	343 728	340 368
Total Growing stock (m³)		502 712	501 200	343 728	340 368

Note: According to local experts, OWL is assumed as broadleaved

6.3.3 Reclassification into FRA 2010 categories

Reclassification is not required.

6.4 Data for Table T6

Table 6a – Growing stock

FRA 2010 category	Volume (million cubic metres over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	3.19	3.20	2.98	2.99	0.50	0.50	0.34	0.34
... of which coniferous	1.29	1.32	1.33	1.33	0	0	0	0
... of which broadleaved	1.90	1.88	1.65	1.66	0.50	0.50	0.34	0.34
Growing stock of commercial species	1.86	1.86	1.85	1.85	0	0	0	0

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

FRA 2010 category / Species name			Growing stock in forest (million cubic metres)		
Rank	Scientific name	Common name	1990	2000	2005
1 st	<i>Pinus elliottii</i>	Pine	1.01	1.03	1.04
2 nd	<i>Eucalyptus</i> spp	Eucalyptus	0.42	0.40	0.36
3 rd	<i>Araucaria</i> spp.	Araucaria	0.21	0.21	0.21
4 th	<i>Tabebuia pallida</i>	Tecoma	0.12	0.12	0.13
5 th	<i>Cryptomeria japonica</i>	Cedar	0.07	0.07	0.08
6 th	<i>Casuarina equisetifolia</i>	Filao	0.03	0.03	0.03
7 th					
8 th					
9 th					
10 th					
Remaining			1.33	1.34	1.13
TOTAL			3.19	3.20	2.98

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)	15 cm	
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	10 cm	
Minimum diameter (cm) of branches included in growing stock (W)	10 cm	
Volume refers to “above ground” (AG) or “above stump” (AS)	AS	

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	Original data regarding Growing Stock is not available. Field exercises were carried out to determine the total growing stock for the whole forest area. These figures were considered as the original data.	Due to the implementation of sustainable forest management, the trend is negligible
Growing stock of broadleaved / coniferous	OWL has been considered as broadleaved	
Growing stock of commercial species	The growing stock of commercial species is the sum of the individual growing stock of all species commercialised in the country	
Growing stock composition		No significant trend is noted

Other general comments to the table

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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
Annual Reports of the Forestry Service	M	Extent of forests	1988-2007	Original national data is not available. Biomass figures were derived from growing stock figures reported in Table T6.

7.2.2 Classification and definitions

According to expert knowledge, it is assumed that the national classification and definitions correspond with FRA 2010 requirements

7.2.3 Original data

Original national data is not available. Data from tables T1 and T6 were used as inputs and conversion factors applied.

7.3 Analysis and processing of national data

7.3.1 Calibration

Calibration is not required.

7.3.2 Estimation and forecasting

LIVING BIOMASS STOCK – YEAR 1990

Category	Species	Growing stock (m ³)	Wood density (ton/m ³)	BEF	AGB (GS*WD*BEF) (ton)	R	BGB (AGB*R) (ton)
Forest	Pinus elliottii	1 005 440	0.46	1.3	601 253	0.29	174 363
	Eucalyptus spp.	422 964	0.51	3.4	733 420	0.20	146 684
	Cryptomeria japonica	74 802	0.38	1.3	36 952	0.40	14 781
	Tabebuia pallida	120 000	0.52	3.4	212 160	0.24	50 918
	Araucaria spp.	206 580	0.43	1.3	115 478	0.20	23 096
	Casuarina equisetifolia	27 852	0.82	1.3	29 690	0.28	8 313
	Others (mostly native forests severely invaded by alien plant species)	1 331 120	0.58	3.4	2 624 969	0.24	629 993
Subtotal		3 188 758			4 353 922		1 048 148
Other Wooded Land (OWL)	Mostly exotic species	502 712	0.58	3.4	991 348	0.40	396 539
TOTAL		3 691 470			5 345 270		1 444 687

Note:

Although Casuarina equisetifolia is classified as broadleaved, it shows many characteristics similar to that of conifers. As such, its Biomass Expansion Factor (BEF) and root-shoot ratio (R) differ from that of broadleaves.

LIVING BIOMASS STOCK – YEAR 2000

Category	Species	Growing stock (m ³)	Wood density (ton/m ³)	BEF	AGB (GS*WD*BEF) (ton)	R	BGB (AGB*R) (ton)
Forest	Pinus elliottii	1 033 984	0.46	1.3	618 322	0.29	179 314
	Eucalyptus spp.	396 180	0.51	3.4	686 976	0.20	137 395
	Cryptomeria japonica	74 802	0.38	1.3	36 952	0.40	14 781
	Tabebuia pallida	120 000	0.52	3.4	212 160	0.24	50 918
	Araucaria spp.	210 540	0.43	1.3	117 692	0.20	23 538
	Casuarina equisetifolia	29 568	0.82	1.3	31 519	0.28	8 825
	Others (mostly native forests severely invaded by alien plant species)	1 331 120	0.58	3.4	2 624 969	0.24	629 993
Subtotal		3 196 194			4 328 590		1 044 764
Other Wooded Land (OWL)	Mostly exotic species	501 200	0.58	3.4	988 366	0.40	395 346
TOTAL		3 697 394			5 316 956		1 440 110

LIVING BIOMASS STOCK – YEAR 2005

Category	Species	Growing stock (m ³)	Wood density (ton/m ³)	BEF	AGB (GS*WD*BEF) (ton)	R	BGB (AGB*R) (ton)
Forest	Pinus elliottii	1 042 304	0.46	1.3	623 298	0.29	180 756
	Eucalyptus spp.	355 632	0.51	3.4	616 666	0.20	123 333
	Cryptomeria japonica	75 426	0.38	1.3	37 260	0.40	14 904
	Tabebuia pallida	127 350	0.52	3.4	225 155	0.24	54 037
	Araucaria spp.	212 850	0.43	1.3	118 983	0.20	23 797
	Casuarina equisetifolia	29 832	0.82	1.3	31 801	0.28	8 904
	Others (mostly native forests severely invaded by alien plant species)	1 134 280	0.58	3.4	2 236 800	0.24	536 832
Subtotal		2 977 674			3 889 963		942 563
Other Wooded Land (OWL)	Mostly exotic species	343 728	0.58	3.4	677 832	0.40	271 133
TOTAL		3 321 402			4 567 795		1 213 696

LIVING BIOMASS STOCK – YEAR 2010

Category	Species	Growing stock (m ³)	Wood density (ton/m ³)	BEF	AGB (GS*WD*BEF) (ton)	R	BGB (AGB*R) (ton)
Forest	Pinus elliottii	1 042 304	0.46	1.3	623 298	0.29	180 756
	Eucalyptus spp.	364 932	0.51	3.4	632 792	0.20	126 558
	Cryptomeria japonica	75 426	0.38	1.3	37 260	0.40	14 904
	Tabebuia pallida	127 350	0.52	3.4	225 155	0.24	54 037
	Araucaria spp.	212 850	0.43	1.3	118 983	0.20	23 797
	Casuarina equisetifolia	29 832	0.82	1.3	31 801	0.28	8 904
	Others (mostly native forests severely invaded by alien plant species)	1 134 280	0.58	3.4	2 236 800	0.24	536 832
Subtotal		2 986 974			3 906 089		945 788
Other Wooded Land	Mostly exotic species	340 368	0.58	3.4	671 206	0.40	268 482
TOTAL		3 327 342			4 577 295		1 214 270

Note:

AGB: Aboveground biomass (tonnes)

BGB: Below-ground biomass (tonnes)

GS: Growing stock (m³)

R: Root-Shoot ratio (Below-ground biomass/Above-ground biomass)

WD: Basic wood density (Dry weight/green volume)

BEF: Biomass Expansion Factor

7.3.3 Reclassification into FRA 2010 categories

Reclassification is not required.

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	4.35	4.33	3.89	3.94	0.99	0.99	0.68	0.67
Below-ground biomass	1.05	1.04	0.94	0.95	0.40	0.40	0.27	0.27
Dead wood	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TOTAL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: Total is listed as “n.a” as the Dead wood component is unknown

7.5 Comments to Table T7

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Above-ground biomass		Since AGB was derived from Growing Stock, the same negligible trend is noted
Below-ground biomass		Since BGB was derived from Growing Stock, the same negligible trend is noted.
Dead wood	National data on dead wood biomass is not available. The IPCC default value is also not available since it is considered too weak.	

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
Annual Report of the Forestry Service	M	Extent of forests	1990-2007	

8.2.2 Classification and definitions

According to expert knowledge, it is assumed that the national classification and definitions correspond with FRA 2010 requirements

8.2.3 Original data

Original data is not available. Data from tables T1 and T7 were used as inputs and conversion factors applied.

8.3 Analysis and processing of national data

8.3.1 Calibration

Calibration is not required.

8.3.2 Estimation and forecasting

CARBON STOCK IN BIOMASS – YEAR 1990

Category	Species	Extent (ha)	AGB (ton)	C stock in AGB (ton)	BGB (ton)	C stock in BGB (ton)
Forest	Pinus elliottii	7 855	601 253	282 589	174 363	81 951
	Eucalyptus spp.	4 548	733 420	344 707	146 684	68 941
	Cryptomeria japonica	959	36 952	17 368	14 781	6 947
	Tabebuia pallida	800	212 160	99 715	50 918	23 932
	Araucaria spp.	626	115 478	54 275	23 096	10 855
	Casuarina equisetifolia	211	29 690	13 954	8 313	3 907
	Others(mostly native forests severely invaded by alien plant species)	23 770	2 624 969	1 233 735	629 993	296 097
Subtotal		38 769	4 353 922	2 046 343	1 048 148	492 630
Other Wooded Land (OWL)	Mostly exotic species	17 954	991 348	465 934	396 539	186 373
TOTAL		56 723	5 345 270	2 512 277	1 444 687	679 003

Note:

The default global carbon fraction of 0.47 was used throughout.

CARBON STOCK IN BIOMASS – YEAR 2000

Category	Species	Extent (ha)	AGB (ton)	C stock in AGB (ton)	BGB (ton)	C stock in BGB (ton)
Forest	Pinus elliottii	8 078	618 322	290 611	179 314	84 277
	Eucalyptus spp.	4 260	686 976	322 879	137 395	64 576
	Cryptomeria japonica	959	36 952	17 367	14 781	6 947
	Tabebuia pallida	800	212 160	99 715	50 918	23 932
	Araucaria spp.	638	117 692	55 315	23 538	11 063
	Casuarina equisetifolia	224	31 519	14 814	8 825	4 148
	Others (mostly native forests severely invaded by alien plant species)	23 770	2 624 969	1 233 735	629 993	296 096
Subtotal		38 729	4 328 590	2 034 436	1 044 764	491 039
Other Wooded Land (OWL)	Mostly exotic species	17 900	988 366	464 532	395 346	185 813
TOTAL		56 629	5 316 956	2 498 968	1 440 110	676 852

CARBON STOCK IN BIOMASS – YEAR 2005

Category	Species	Extent (ha)	AGB (ton)	C stock in AGB (ton)	BGB (ton)	C stock in BGB (ton)
Forest	Pinus elliottii	8 143	623 298	292 950	180 756	84 955
	Eucalyptus spp.	3 824	616 666	289 833	123 333	57 967
	Cryptomeria japonica	967	37 260	17 512	14 904	7 005
	Tabebuia pallida	849	225 155	105 823	54 037	25 397
	Araucaria spp.	645	118 983	55 922	23 797	11 185
	Casuarina equisetifolia	226	31 801	14 946	8 904	4 185
	Others (mostly native forests severely invaded by alien plant species)	20 255	2 236 800	1 051 296	536 832	252 311
Subtotal		34 909	3 889 963	1 828 282	942 563	443 005
Other Wooded Land (OWL)	Mostly exotic species	12 276	677 832	318 581	271 133	127 433
TOTAL		47 185	4 567 795	2 146 863	1 213 696	570 438

CARBON STOCK IN BIOMASS – YEAR 2010

Category	Species	Extent (ha)	AGB (ton)	C stock in AGB (ton)	BGB (ton)	C stock in BGB (ton)
Forest	Pinus elliottii	8 143	623 298	292 950	180 756	84 955
	Eucalyptus spp.	3 924	632 792	297 412	126 558	59 482
	Cryptomeria japonica	967	37 260	17 512	14 904	7 005
	Tabebuia pallida	849	225 155	105 823	54 037	25 397
	Araucaria spp.	645	118 983	55 922	23 797	11 185
	Casuarina equisetifolia	226	31 801	14 946	8 904	4 185
	Others (mostly native forests severely invaded by alien plant species)	20 255	2 236 800	1 051 296	536 832	252 311
Subtotal		35 009	3 906 089	1 835 861	945 788	444 520
Other Wooded Land (OWL)	Mostly exotic species	12 156	671 206	315 467	268 482	126 186
TOTAL		47 165	4 577 295	2 151 328	1 214 270	570 706

CARBON STOCK IN LITTER & SOIL - YEAR 1990

Category	Species	Extent (ha)	Default value Litter C ton C/ha	Total Litter C ton	Default value Soil Organic C ton C/ha	Total Soil Organic C ton
Forest	Pinus elliottii	7 855	5.2	40 846	70	549 850
	Eucalyptus spp.	4 548	2.1	9 551	70	318 360
	Cryptomeria japonica	959	5.2	4 987	70	67 130
	Tabebuia pallida	800	2.1	1 680	70	56 000
	Araucaria spp.	626	5.2	3 255	70	43 820
	Casuarina equisetifolia	211	5.2	1 097	70	14 770
	Others (mostly native forests severely invaded by alien plant species)	23 770	2.1	49 917	70	1 663 900
Subtotal		38 769		111 333		2 713 830
Other Wooded Land (OWL)	Mostly exotic species	17 954	2.1	37 703	70	1 256 780
TOTAL		56 723		149 036		3 970 610

CARBON STOCK IN LITTER & SOIL - YEAR 2000

Category	Species	Extent (ha)	Default value Litter C ton C/ha	Total Litter C ton	Default value Soil Organic C ton C/ha	Total Soil Organic C ton
Forest	Pinus elliottii	8 078	5.2	42 006	70	565 460
	Eucalyptus spp.	4 260	2.1	8 946	70	298 200
	Cryptomeria japonica	959	5.2	4 987	70	67 130
	Tabebuia pallida	800	2.1	1 680	70	56 000
	Araucaria spp.	638	5.2	3 318	70	44 660
	Casuarina equisetifolia	224	5.2	1 165	70	15 680
	Others (mostly native forests severely invaded by alien plant species)	23 770	2.1	49 917	70	1 663 900
Subtotal		38 729		112 018		2 711 030
Other Wooded Land (OWL)	Mostly exotic species	17 900	2.1	37 590	70	1 253 000
TOTAL		56 629		149 608		3 964 030

CARBON STOCK IN LITTER & SOIL - YEAR 2005

Category	Species	Extent (ha)	Default value Litter C ton C/ha	Total Litter C ton	Default value Soil Organic C ton C/ha	Total Soil Organic C ton
Forest	Pinus elliottii	8 143	5.2	42 344	70	570 010
	Eucalyptus spp.	3 824	2.1	8 030	70	267 680
	Cryptomeria japonica	967	5.2	5 028	70	67 690
	Tabebuia pallida	849	2.1	1 783	70	59 430
	Araucaria spp.	645	5.2	3 354	70	45 150
	Casuarina equisetifolia	226	5.2	1 175	70	15 820
	Others (mostly native forests severely invaded by alien plant species)	20 255	2.1	42 536	70	1 417 850
Subtotal		34 909		104 250		2 443 630
Other Wooded Land (OWL)	Mostly exotic species	12 276	2.1	25 780	70	859 320
TOTAL		47 185		130 030		3 302 950

CARBON STOCK IN LITTER & SOIL - YEAR 2010

Category	Species	Extent (ha)	Default value Litter C ton C/ha	Total Litter C ton	Default value Soil Organic C ton C/ha	Total Soil Organic C ton
Forest	Pinus elliottii	8 143	5.2	42 344	70	570 010
	Eucalyptus spp.	3 924	2.1	8 240	70	274 680
	Cryptomeria japonica	967	5.2	5 028	70	67 690
	Tabebuia pallida	849	2.1	1 783	70	59 430
	Araucaria spp.	645	5.2	3 354	70	45 150
	Casuarina equisetifolia	226	5.2	1 175	70	15 820
	Others (mostly native forests severely invaded by alien plant species)	20 255	2.1	42 536	70	1 417 850
Subtotal		35 009		104 460		2 450 630
Other Wooded Land (OWL)	Mostly exotic species	12 156	2.1	25 528	70	850 920
TOTAL		47 165		129 988		3 301 550

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	2.04	2.03	1.83	1.83	0.46	0.46	0.32	0.32
Carbon in below-ground biomass	0.49	0.49	0.44	0.44	0.19	0.19	0.13	0.13
Sub-total: Living biomass	2.53	2.52	2.27	2.27	0.65	0.65	0.45	0.45
Carbon in dead wood	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Carbon in litter	0.11	0.11	0.10	0.10	0.04	0.04	0.03	0.03
Sub-total: Dead wood and litter	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Soil carbon	2.71	2.71	2.44	2.45	1.26	1.25	0.86	0.85
TOTAL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Soil depth (cm) used for soil carbon estimates	30
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Note: Total is listed as “n.a” as the dead wood component is unknown

8.5 Comments to Table T8

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Carbon in above-ground biomass		Since these figures are derived from the Biomass figures, a corresponding negligible trend is noted
Carbon in below-ground biomass		Since these figures are derived from the Biomass figures, a corresponding negligible trend is noted
Carbon in dead wood	National data on dead wood biomass is not available. The IPCC default value is also not available since it is considered too weak.	
Carbon in litter		A negligible trend is noted which corresponds to the extent of Forest and Other Wooded Land
Soil carbon		A negligible trend is noted which corresponds to the extent of Forest and Other Wooded Land

Other general comments to the table

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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
Annual Reports of the Forestry Service	M	Biotic/abiotic agents affecting forest	1988-2007	
Government Fire Services	H	Firecalls statistics	2000-2007	Statistics for period 1988-1999 are not available from the Fire Services.

9.2.2 Classification and definitions

According to local experts, it is assumed that the national classification and definitions correspond with FRA 2010 requirements.

9.2.3 Original data

	2000		2001		2002	
	No.of fires	Extent(ha)	No.of fires	Extent(ha)	No.of fires	Extent(ha)
Total land area affected	2 865	3 937	4 082	8 196	2 664	5 660
..o/w on Forest	1 000	80	1 535	92	604	78
..o/w on OWL	460	37	500	30	300	38
..o/w on OL	1 405	3 820	2 047	8 074	1 760	5 544

	2003		2004		2005	
	No.of fires	Extent(ha)	No.of fires	Extent(ha)	No.of fires	Extent(ha)
Total land area affected	3 989	6 965	3 751	6 906	4 437	5 506
..o/w on Forest	1 500	95	1 250	61	1 325	34
..o/w on OWL	625	39	667	32	1 044	27
..o/w on OL	1 864	6 831	1 834	6 813	2 068	5 445

	2006		2007	
	No.of fires	Extent(ha)	No.of fires	Extent(ha)
Total land area affected	5 149	7 444	4 609	5 808
..o/w on Forest	1 550	51	1 478	92
..o/w on OWL	1 302	43	1 010	62
..o/w on OL	2 297	7 350	2 121	5 654

9.3 Analysis and processing of national data

9.3.1 Calibration

Calibration is not required.

9.3.2 Estimation and forecasting

Three-year average (2000- 2002)

	No.of fires	Extent(ha)
Total land area affected	3 204	5 931
..o/w on Forest	1 047	83
..o/w on OWL	420	35
..o/w on OL	1 737	5 813

Five-year average (2003-2007)

	No.of fires	Extent(ha)
Total land area affected	4 387	6 526
..o/w on Forest	1 421	67
..o/w on OWL	929	41
..o/w on OL	2 037	6 418

9.3.3 Reclassification into FRA 2010 categories

No further reclassification is required.

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	5.00	2 500	5.93	3 204	6.53	4 387
... of which on forest	n/a	n/a	0.08	1 047	0.07	1 421
... of which on other wooded land	n/a	n/a	0.04	420	0.04	929
... of which on other land	n/a	n/a	5.81	1 737	6.42	2 037

Note: Figures for the year 1990 are based on expert estimate as these are not available from the Government Fire Services.

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		A significant rise is noted in the extent of land affected by fire as a result of arson or accidental fire ignition by careless visitors.
Number of fires		The number of fires is also on the rise due to above reasons.
Wildfire / planned fire		

Other general comments to the table

Fire incidents occurred mostly in the dry areas of North and West. Firebreaks were re-opened as a protective measure. Wildfires occur mostly in grasslands and sugar cane fields from where they spread into adjacent forests. Although there is no direct evidence we think that a change in climate is also responsible significantly to fire occurrences.

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 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Annual Reports of the Forestry Service	M	Biotic/abiotic agents affecting forest	1988-2007	
Entomology Division, Min of Agro-Industry & Fisheries	M	Disturbance of forest trees by insects	1993-2003	

10.2.2 Classification and definitions

According to expert knowledge, it is assumed that the national classification and definitions correspond with FRA 2010 requirements

10.2.3 Original data

Area affected by Cyclone

Years	Forest Area affected (ha)	Years	Forest Area affected (ha)
1998	0	2003	45
1999	6	2004	0
2000	23	2005	102
2001	54	2006	20
2002	833	2007	81
Total	916	Total	248

10.3 Analysis and processing of national data

10.3.1 Estimation and forecasting

Disturbance	Area (ha)		
	5-year average (1988-1992)	5-year average (1998-2002)	5-year average (2003-2007)
	1990	2000	2005
Cyclone	0	183	50

10.3.2 Reclassification into FRA 2010 categories

Reclassification is not required.

10.4 Data for Table T10

Table 10a – Disturbances

FRA 2010 category	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects	0	0.001	0.007
Disturbance by diseases	0	0.003	0.004
Disturbance by other biotic agents	0.002	0.010	0.038
Disturbance caused by abiotic factors	0	0.183	0.050
Total area affected by disturbances	0.002	0.197	0.099

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)
<i>Cinara cupressivora</i>	<i>Juniperus bermudiana</i>	2007	0.003	Yearly
<i>Glausites rufobalis</i>	<i>Cassine orientalis</i>	2000	0.001	Yearly
<i>Armillaria sp.</i>	<i>Pinus elliottii</i>	2006	0.010	Irregular

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>Psidium cattleianum</i>	2.73
<i>Rubus alceaefolius</i>	0.85
<i>Ligustrum walkeri</i>	0.31
<i>Ravenala madagascariensis</i>	0.13
<i>Cuscuta reflexa</i>	0.03
Total forest area affected by woody invasive species	4.05

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

10.5 Comments to Table T10

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Disturbance by insects	No significant increase in extent affected by the Aphid <i>Cinara cupressivora</i>	A recurrence has been noted during summer season
Disturbance by diseases	Mainly caused by <i>Armillaria sp.</i> on patches of Pine plantation	Irregular
Disturbance by other biotic agents	Damage caused mainly by deer (<i>Cervus timorensis russa</i>) on young pine plantations	An increase of such impacts is noted probably because of less fodder during extended periods of droughts. Probably the effects of climate change.
Disturbance caused by abiotic factors	No serious damage reported due to cyclones of lower intensity	Disturbance caused by cyclones is not regular but remains unpredictable

Major outbreaks	No significant extent affected	
Invasive species	<i>Psidium cattleianum</i> is the main woody invasive species which caused much concern in the upland plantation and native forests.	

Other general comments to the table

Attacks by the aphid *Cinara cupressivora* on *Juniperus bermudiana* was the main cause of mortality among the Cypress population since 1999. According to the Entomology Division, a few insect species caused some damage to forest trees.

e g .:

i. *Hypsipyla grandella* affected *Swietenia mahagoni*

ii. *Glausites rufobasalis* affected *Cassine orientalis*

iii. Gonipterus weevil damaged *Eucalyptus robusta*

Disturbance by disease was mainly caused by *Armillaria* on pine plantation.

Other disturbance caused was due mainly to cyclones Davina in 1999 and Dina in 2002.

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
FAO Statistics Division 2008	H	Production of Industrial Roundwood & Woodfuel	1988-2006	
Annual Report of the Forestry Service	H	Selling rates of timber & firewood	1988-2006	

11.2.2 Classification and definitions

According to local experts, it is assumed that the national classification and definitions correspond with FRA 2010 requirements.

11.2.3 Original data

Data was compiled from sources mentioned above.

11.3 Analysis and processing of national data

11.3.1 Calibration

Calibration is not required.

11.3.2 Estimation and forecasting

Estimation and forecasting are not required.

11.3.3 Reclassification into FRA 2010 categories

Reclassification is not required.

11.4 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.)	15.6	11.2	9.5	14.3	11.9	7.1
... of which from forest	15.6	11.2	9.5	14.3	11.9	7.1
Unit value (local currency / m ³ o.b.)	690	1507	1852	109	192	244
Total value (1000 local currency)	10 764	16 878	17 594	1 559	2 285	1 732

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

	1990	2000	2005
Name of local currency	Mauritian Rupee (MUR)	Mauritian Rupee (MUR)	Mauritian Rupee (MUR)

11.5 Comments to Table T11

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of industrial roundwood removals		A decrease in industrial roundwood removal is noted due to an increase in the volume of imported timber
Total volume of woodfuel removals		A gradual decrease in woodfuel removal is noted due to a slight decrease in local consumption as a result of Government's decision to subsidise domestic gas.
Unit value	The average unit prices for both roundwood and woodfuel removals reported in FRA 2005 were erroneously quoted since they referred to harvesting only. They have been amended accordingly and now reflect the true average market value.	A marked increase is noted due to revision in prices of local timber
Total value		

Other general comments to the table

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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
Mauritius Chamber of Agriculture - Annual Report	M	Deer ranching	2001-2002	Value is based on the subjective assessment of local experts
Mauritius Meat Producers' Association	M	Venison production	2001	"
Apiculture - Ministry of Agriculture	M	Honey production	1990 - 2003	"
Agricultural Research Extension Unit – Ministry of Agriculture	M	Honey production	1990 - 2003	"

12.2.2 Classification and definitions

According to local experts, the national classification and definitions correspond with FRA 2010 requirements.

12.2.3 Original data

Original data is not available. Information was compiled from sources referred to in 12.2.1 and value estimates were made by local experts.

12.3 Analysis and processing of national data

12.3.1 Calibration

Calibration is not required.

12.3.2 Estimation and forecasting

Estimations on the values of NWFP were made by local experts. Forecasting is not required.

12.3.3 Reclassification into FRA 2010 categories

Reclassification is not required.

12.4 Data for Table T12

Rank	Name of product	Key species	Unit	NWFP removals 2005		NWFP category
				Quantity	Value (1000 local currency)	
1 st	Monkey	<i>Macaca fascicularis</i>	unit	5000	500 000	Living animals
2 nd	Guava	<i>Psidium cattleianum</i>	tonne	10 500	100 000	Food
3 rd	Deer	<i>Cervus timorensis russa</i>	tonne	500	50 000	Wild meat
4 th	Herbe d'argent	<i>Ischaemum aristatum</i>	tonne	190 000	40 000	Fodder
5 th	Herbe elephant	<i>Pennisetum purpureum</i>	tonne	70 000	15 000	Fodder
6 th	Wild honey & Bee wax	<i>Apis mellifera</i>	tonne	100	10 000	Wild honey & Bee wax
7 th	Mango	<i>Mangifera indica</i>	tonne	500	8 000	Food
8 th	Acacia	<i>Leucaena leucocephala</i>	tonne	17 000	4 000	Fodder
9 th	Ravenale	<i>Ravenala madagascariensis</i>	tonne	100	2 000	Raw material for handicrafts
10 th	Wild pig	<i>Sus scrofa</i>	tonne	10	1 000	Wild meat
All other plant products					17 000	
All other animal products					1 000	
TOTAL					748 000	

	2005
Name of local currency	Mauritian Rupee (MUR)

12.5 Comments to Table T12

Variable / category	Comments related to data, definitions, etc.
10 most important products	A decline in the export of monkeys for medical research has been noted due to increasing pressures from NGOs and local authorities for wildlife protection. An increase in fodder removal is noticed as a result of additional state forest lands released for fodder production to improve local milk production by cow-breeders.
Other plant products	An expansion of small and medium enterprises has led to an increase in demand for raw materials for handicrafts from plant products which also include bamboo, <i>Pandanus</i> and honeysuckle.
Other animal products	
Value by product	
Total value	

Other general comments to the table
The reported figures refer to Forest & Other wooded land combined.

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
Annual Report of the Forestry Service	H	Employment in the Forestry Service	1990 – 2007	Estimates are based on local expert knowledge for subsequent years
Central Statistics Office	H	Employment	2000	Estimates are based on local expert knowledge for subsequent years
Annual Report of the Mauritius Chamber of Agriculture	M	Employment	2000	Estimates are based on local expert knowledge for subsequent years

13.2.2 Classification and definitions

According to local experts, the national classification and definitions correspond with FRA 2010 requirements.

13.2.3 Original data

Original data is not available. Figures were compiled directly from sources mentioned in 13.2.1

13.3 Analysis and processing of national data

13.3.1 Calibration

Calibration is not required.

13.3.2 Estimation and forecasting

Estimation is based on expert knowledge. Forecasting is not required.

13.3.3 Reclassification into FRA 2010 categories

Reclassification is not required.

13.4 Data for Table T13

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods	2.3	2	1.9
...of which paid employment	n/a	n/a	n/a
...of which self-employment	n/a	n/a	n/a
Employment in management of protected areas	0.4	0.7	0.9

13.5 Comments to Table T13

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Employment in primary production of goods		A slight decrease regarding employment in production of primary goods is noted due to the fact that various silvicultural activities are being carried out by private contractors.
Paid employment / self-employment	Data is not available.	
Employment in management of protected areas		An increase regarding employment in management of protected areas is noted due to the expansion of the eco-tourism sector through the creation of nature trails, visitors centre, medicinal garden , etc and the increasing awareness regarding soil and water conservation.

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)			
Forest policy statement with national scope	X	Yes	
		No	
If Yes above, provide:	Year of endorsement	2006	
	Reference to document	National Forest Policy	
National forest programme (nfp)	X	Yes	
		No	
If Yes above, provide:	Name of nfp in country	National Forestry Action Programme	
	Starting year	2006	
	Current status	X	In formulation
			In implementation
			Under revision
		Process temporarily suspended	
Reference to document or web site			
Law (Act or Code) on forest with national scope	X	Yes, specific forest law exists	
		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	1983	
	Year of latest amendment	2003	
	Reference to document	The Forests and Reserves Act No. 41 of 1983	

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.		
Sub-national forest policy statements	<input type="checkbox"/>	Yes
	<input checked="" type="checkbox"/>	No
If Yes above, indicate the number of regions/states/provinces with forest policy statements		
Sub-national Laws (Acts or Codes) on forest	<input type="checkbox"/>	Yes
	<input checked="" type="checkbox"/>	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	The Forest Policy for Mauritius was enunciated in 1963 in the form of broad and general principles. This policy badly needed to be revised in the light of new developments in the forest sector and in the present national and global context. The New National Forest Policy for the development of the forest sector in Mauritius is the outcome of discussions and consultations with key stakeholders which started on 1 October 2004 and was completed on 30 April 2006. It was undertaken by the Forestry Service with assistance provided by the Food and Agriculture Organisation for its formulation.
National forest programme (nfp)	A National Forest Action Programme is currently under way to translate policy into concrete action. The government will monitor the implementation of the new Forest Policy and evaluate the impact of the institutional reforms and strategies developed under this programme.
Law (Act or Code) on forest with national scope	This Act may be cited as the Forests and Reserves (Amendment) Act 2003 which was proclaimed so as to amend and consolidate the law relating to forests, reserves and related matters.
Sub-national forest policy statements	Not applicable.
Sub-national Laws (Acts or Codes) on forest	Not applicable.

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	The Minister of Agro-Industry, Food Production and Security	
Level of subordination of Head of Forestry within the Ministry		1 st level subordination to Minister
	X	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	The National Parks and Conservation Service of the Ministry of Agro-Industry, Food Production and Security.	
Institution(s) responsible for forest law enforcement	The Forestry Service of the Ministry of Agro-Industry, Food Production and Security; and The Police Department	

Table 15b – Human resources

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	% Female	Number	% Female	Number	% Female
Total staff	225	3	197	4	213	6
...of which with university degree or equivalent	11	9	15	7	16	12

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		
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

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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
Forestry Service	H	Particulars of Technical Staff	2000-2008	
Annual Report of the National Parks & Conservation Service	H	List of Technical Staff	2008	

16.2.2 Original data

Data was compiled directly from above mentioned sources.

16.3 Analysis and processing of national data

16.3.1 Estimation and forecasting

Estimation and forecasting are not required.

16.4 Data for Table T16

FRA 2010 Category	Graduation ¹⁾ of students in forest-related education					
	2000		2005		2008	
	Number	% Female	Number	% Female	Number	% Female
Master's degree (MSc) or equivalent	6	0	9	0	9	11
Bachelor's degree (BSc) or equivalent	7	14	10	10	10	10
Forest technician certificate / diploma	80	0	105	0	109	0
FRA 2010 Category	Professionals working in publicly funded forest research centres ²⁾					
	2000		2005		2008	
	Number	% Female	Number	% Female	Number	% Female
Doctor's degree (PhD)	0	0	0	0	0	0
Master's degree (MSc) or equivalent	0	0	0	0	0	0
Bachelor's degree (BSc) or equivalent	0	0	0	0	0	0

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.

16.5 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Graduation of students in forest-related education	The majority of forest officers are holders of the Certificate course in Forestry run by the University of Mauritius	There is no related trend. The course was offered in batches extending over 4 years.
Professionals working in public forest research centres	Not applicable	

Other general comments to the table

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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
Annual Report of the Forestry Service	H	Revenue and Expenditure	2000 & 2005	
Finance Section – National Parks and Conservation Service	H	Revenue and Expenditure	2000 & 2005	

17.2.2 Classification and definitions

According to local experts, the national classification and definitions correspond with FRA 2010 requirements

17.2.3 Original data

Data were compiled directly from sources mentioned at 17.2.1

17.3 Analysis and processing of national data

17.3.1 Estimation and forecasting

Organisation	Revenue (1000 MUR)	
	2000	2005
Forestry Service	10 465	13 590
National Parks and Conservation Service	11 002	22 225

Organisation	Expenditure (1000 MUR)	
	2000	2005
Forestry Service	138 197	169 173
National Parks and Conservation Service	11 200	16 030

17.4 Data for Table T17

Table 17a - Forest revenues

FRA 2010 Categories	Revenues (1000 MUR)	
	2000	2005
Forest revenue	21 467	35 815

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

FRA 2010 Categories	Domestic funding (1000 MUR)		External funding (1000 MUR)		Total (1000 MUR)	
	2000	2005	2000	2005	2000	2005
Operational expenditure	149 397	185 203	0	0	149 397	185 203
Transfer payments	0	0	0	0	0	0
Total public expenditure	149 397	185 203	0	0	149 397	185 203
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				

17.5 Comments to Table T17

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue		
Operational expenditure		
Transfer payments	Not applicable	Not applicable

Other general comments to the table

The two above-named institutions responsible for the management of forests in Mauritius are non-profit making organisations but offer service to the public and their revenues are insignificant. As such, their expenditures by far exceed their revenues.