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Food and Agriculture Organization of the United Nations

GLOBAL FOREST RESOURCES ASSESSMENT

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The Forest Resources Assessment Programme

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

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Forest Resources Assessment Programme. This country report forms part of the Global Forest Resources Assessment 2005 (FRA 2005), which is the most comprehensive assessment to date. More than 800 people have been involved, including 172 national correspondents and their colleagues, an Advisory Group, international experts, FAO staff, consultants and volunteers. Information has been collated from 229 countries and territories for three points in time: 1990, 2000 and 2005.

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

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1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2005 Categories and definitions

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

1.2 National data

1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Chapman, G.W. 1954 Forest Report (Annual Report of the Department of Forests)	M	Privately owned forests	1954	Census of privately owned forests and plantations.
Department of Agriculture. Register of Agricultural crops	L	Area of certain agricultural crops	2004	Register kept for the agricultural crops, which includes, among others, data on cultivations of olive trees, citrus trees, almond trees and other fruit trees. It does not include carob trees. Data are based on the declarations submitted by owners for the purposes of the Rural Development Plan. Parts of the areas recorded do not comply with the FRA 2005 threshold value for minimum area but refer to scattered trees. The land cover of these trees is calculated by the use of a standard coefficient and it is currently impossible to separate it from the rest of the areas included.
Department of Forests	M	Vegetation	1999	Forest vegetation mapping based on existed maps for state forest areas and on a survey for the private forest areas
Department of Forests. Register of State Forest Land	H	Area of State Forest Land	1990, 1999, 2000,2003	Register kept for the changes on the land officially declared as State Forest Land

1.2.2 Classification and definitions

National class	Definition
Forest	It corresponds to FRA 2005 except the threshold value for minimum area, which is 1 ha.
Maquis	Land spanning more than 1 ha with evergreen, sclerophyllous shrubs of different heights (1-5 m) mixed with bushes and scattered trees with a combined cover above 10%
Garigue	Land spanning more than 1 ha with bushes and a cover above 10%
Other land	Includes all land not classified as "Forest" or "Other Wooded Land"

1.2.3 Original data

1.2.3.1 Private Forests

National class	Area (hectares)	Source
	1954	Chapman, G.W. 1954 Forest Report (Annual Report of the Department of Forests)
Private Forests	13 550	

1.2.3.2 Other land with tree cover

National class	Area (hectares)	Source
	2004	Department of Agriculture. Register of Agricultural crops
Other land with tree cover	25 931	

1.2.3.3 Forest Vegetation Mapping

National class	Area (hectares)	Source
	1999	Department of Forests. Forest vegetation mapping based on existing maps for state forest areas and on a survey for the private forest areas
State Forests	105 800	
Private Forests	65 810	
State maquis	35 770	
State garigue	14 970	
Private maquis	90 320	
Private garigue	72 800	
Total Forest & OWL	385 470	
Other land[6]	536 180	
Total land area	921 650	
Inland Water[8]	3 500	
Total Area	925 150	

1.2.3.4 State Forest Land

National class	Area (hectares)				Source
	1990	**1999**	**2000**	**2003**	Department of Forests. Register of State Forest Land
State Forests	105 800	105 800	105 800	106778	
State maquis	35 770	35 770	35 770	35 770	
State garigue	14 970	14 970	14 970	14 970	

1.2.3.5 Compilation of Original Data

National class	Area (hectares)				
	1954[1]	**1990**	**1999**	**2000**	**2004**[2]
State Forests		105 800	105 800	105 800	
Private Forests	13 550	NDA[3]	65 810	NDA	
State maquis		35 770	35 770	35 770	
State garigue		14 970	14 970	14 970	
Private maquis		NDA	90 320[4]	NDA	
Private garigue		NDA	72 800[4]	NDA	
Total Forest & OWL		ID[5]	385 470	ID[5]	
Other land[6]		ID[7]	536 180	ID[7]	
Other land with tree cover		NDA	NDA	NDA	25 931
Total land area		921 650	921 650	921 650	
Inland Water[8]		3 500	3 500	3 500	
Total Area	925 150	925 150	925 150	925 150	925 150

[1] This year has been selected for the information on "Private forests".
[2] This year has been selected for the information on "Other land with tree cover".
[3] No Data Available.
[4] Land for private maquis and garigue include land that is predominantly under grazing.
[5] Insufficient Data. There were no data available on private forests, maquis and garigue.
[6] Estimated from original data as: Total land area – Total forest land.
[7] Insufficient Data. It was impossible to separate private forests, maquis and garigue from Other land.
[8] Data for inland water are based on mapping of the maximum capacity of water dams and lakes.

1.3 Analysis and processing of national data

1.3.1 Calibration

The total land area according to original data is 921 650 hectares, while FAOSTAT reports 924 000 hectares. In order to align the figures to FAOSTAT, the difference has been allocated to the category Other land in the final reporting table.

1.3.2 Estimation and forecasting

National class	Area (hectares)		
	1990	**2000**	**2005**
State forests	105 800[1]	105 800[1]	107 430[2]
Private forests	55 310[3]	66 970[3]	66 970[4]
State maquis	35 770	35 770	35 770
State garigue	14 970	14 970	14 970
Private maquis	NDA	90 320	90 320[4]
Private garigue	NDA	72 800	72 800[4]
Total forest and OWL	211 850[5]	386 630	388 260
Other land	709 800[6]	535 020	533 390[7]
OTHER LAND WTC	NDA	NDA	25 931[8]
Total land area	921 650	921 650	921 650

[1] Highly accurate figures from the records kept by the Department of Forests
[2] Data for 2005 are based on the figures of the land that has been recently allocated to forestry and to be afforested. By the end of 2005, 1630 ha will be afforested.
[3] Data for the years 1990 and 2000 have been estimated using linear interpolation of the data in 1954 and 1999.

[4] This area should be considered as the minimum. There should be an increase as compare to 2000 figures but no safe forecasts can be given. It is safe, however, to be noted that the rate of increase will not be as high as in the past.
[5] Insufficient Data. Data do not include Private Other Wooded land.
[6] Insufficient Data. Data include Private Other Wooded land.
[7] This should be considered as the maximum since increase of private forests, maquis and garigue has not been considered.
[8] It is assumed that there will not be a significant change between 2004 and 2005.

1.4 Reclassification into FRA 2005 classes

National class	FRA 2005 Categories				
	Forest	OWL	Other Land	Total	OLWTC
State forests	100%			100%	0%
Private forests	100%			100%	0%
State maquis		100%		100%	0%
State garigue		100%		100%	0%
Private maquis		100%		100%	0%
Private garigue		100%		100%	0%
Other land			100%	100%	NDA

1.5 Data for National reporting table T1

FRA 2005 Categories	Area (1000 hectares)		
	1990	2000	2005
Forest	161	173	174
Other wooded land	ID[1]	214	214
Other land	ID[2]	537	536
...of which with tree cover	NDA	NDA	26
Inland water bodies	1[3]	1[3]	1[3]
TOTAL	**925**	**925**	**925**

[1] Insufficient Data. Data only for State Other Wooded Land (50 740ha). No data available for Private Other Wooded Land.
[2] Insufficient Data. Data (709 800ha) include Private Other Wooded Land.
[3] Official inland water area from FAOSTAT figures

1.6 Comments to National reporting table T1

- Data for state areas are annual and of high quality.
- Data for private areas do not exist on regular intervals and when they exist are estimates of medium to low quality.
- The main weakness in the existing National data is the lack of data for Private Other Wooded Land in 1990 and the inability to make, for this class, safe forecasts for the year 2005.
- Another weakness is the lack of data for the part of the Other Land With Tree Cover for the year 1990 and 2000.
- Estimates on this Reporting Table for 1990 differ from those reported in FRA2000 as data from forest mapping (Table 1.2.3.3) were not available at the time of FRA 2000 Reporting. The data from the 1954 Census of privately owned forest and plantations were also not considered in FRA 2000 Reporting.

2 Table T2 – Ownership of Forest and Other wooded land

2.1 FRA 2005 Categories and definitions

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

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests 1990. Annual Report	H	Ownership of forest areas	1990	
Department of Forests 2000. Annual Report	H	Ownership of forest areas	2000	
Department of Forests. Register of State Forest Land	H	Area of State Forest Land	1990, 1999, 2000,2003	Register kept for the changes on the land officially declared as State Forest Land

2.2.2 Classification and definitions

National class	Definition
Private ownership	It corresponds to FRA 2005 definition
Public ownership	It corresponds to FRA 2005 definition

2.2.3 Original data

Data from table 1.3.2 were used as input to this table

2.3 Analysis and Processing of National data

There is no need to perform any analysis and processing.

2.3.1 Calibration

There is no need to perform any calibration.

2.3.2 Estimation and forecasting

Not needed.

2.4 Reclassification into FRA 2005 classes

National classes match the FRA 2005 classes.

2.5 Data for National reporting table T2

FRA 2005 Categories	Area (1000 hectares)			
	Forest		Other wooded land	
	1990	2000	1990	2000
Private ownership	55[1]	67[1]	NDA	163[1]
Public ownership	106	106	51	51
Other ownership	0	0	0	0
TOTAL	**161**	**173**	**ID[2]**	**214**

[1] Data on private ownership include "haliland" forest and other wooded land which is state land. The exact area is expected to be available in 2006.
[2] Insufficient data due to the lack of data on private ownership.

2.6 Comments to National reporting table T2

The main weakness in the existing national data is the inclusion of data on "haliland" which is state land in the class of "Private ownership". Haliland is mostly unfertile land scattered throughout the island, not regularly exploited since the Ottoman occupation from 1571 to 1878. Haliland has never been claimed by anyone due to heavy property and farming taxes imposed by Ottoman administration (Thirgood, 1987). Later on, during the British administration, these areas were declared as common lands and the land ownership remained to the State (Ioannou, 1991).

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

3.1 FRA 2005 Categories and definitions

Types of designation

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

Designation categories

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

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	M	Forest functions	1990 2000	Register kept by the Department of Forests on land officially declared as State forest land, including those areas classified as Nature Reserves, National Forest Parks and Minor State Forests.

3.2.2 Classification and definitions

National class	Definition
Productive Permanent Forest Reserve	Area of Main State Forest designated to be used in the perpetuity for forestry and particularly for wood production
Multiple-use Permanent Forest Reserve	Area of Main State Forest designated to be used in the perpetuity for multiple-use forestry
Nature Reserves	Area designated for conservation of biological diversity
National Forest Park	Area designated for the provision of social services mainly recreation
Multiple use (Minor State Forests)	Area designated for a number of different uses including grazing, communal forests, forest nursery, etc.
No function	Area, which has not been designated to any specific function.

3.2.3 Original data

National class	Area (hectares)	
	Primary function	
Forest and Other Wooded Land[1]	**1990**	**2000**
Productive Permanent Forest Reserve	43 222	43 173
Multiple-use Permanent Forest Reserve	92 584	79 415
Nature Reserves	823	4 788
National Forest Park	8 161	18 291
Multiple use (Minor state forests)	15 833	15 705
No function	ID[2]	225 257
Total Forest and Other Wooded Land	**ID[2]**	**386 630**

[1] There are data available only for the total of Forest and Other Wooded land together.

[2] Insufficient data. This figure does not include private Other Wooded Land.

The area of "No function" for year 2000 was calculated as the total area of Forest and Other wooded land minus the areas with other designated functions in the table above .

3.3 Analysis and processing of national data

3.3.1 Calibration

There is no need to perform any calibration since the National Land Area matches the FAOSTAT land area.

3.3.2 Estimation and forecasting

National Class	Area (ha)		
Forest and Other Wooded Land	**1990**	**2000**	**2005**
Productive Permanent Forest Reserve	43 222	43 173	43 173
Multiple-use Permanent Forest Reserve	92 584	79 415	81 045[2]
Nature Reserves	823	4 788	4 788
National Forest Park	8 161	18 291	18 291
Mulitple use (Minor state forests)	15 833	15 705	15 705
No function	ID[1]	225 258	225 258
Total Forest and Other Wooded Land	**ID[1]**	**386 630**	**388 260**

[1] Insufficient data. This figure does not include private Other Wooded Land.

[2] The increase is based on the inclusion of land that has been recently allocated to forestry and to be afforested by the end of 2005, as it is also shown in T.1.3.2.

3.4 Reclassification into FRA 2005 classes

National Class	Primary Function for FRA2005 Classes[2]					
	Production	Protection of soil and water	Conservation of biodiversity	Social Services	Multiple Purposes	No Function
Productive Permanent Forest Reserve	100%					
Multiple-use Permanent Forest Reserve					100%	
Nature Reserves			100%			
National Forest Park				100%		
Multiple use (Minor state forests)					100%	
No function						100%

[1] Experts estimates based on the management objective and the assigned role of each forest area.

National Class	Total Area with Function for FRA2005 Categories[1]					
	Production	Protection of soil and water	Conservation of biodiversity	Social Services	Multiple Purposes	No Function
Productive Permanent Forest Reserve	100%	100%	100%			
Multiple-use Permanent Forest Reserve		100%	100%	100%		
Nature Reserves		100%	100%			
National Forest Park		100%	100%	100%		
Multiple use (Minor state forests)		100%	100%	100%		
No function						

[1] Experts estimates based on the management objective and the assigned role of each forest area.

3.5 Data for National reporting table T3 for forest and other wooded land

FRA 2005 Categories / Designated function	Area (1000 hectares)					
	Primary function			Total area with function		
Forest and Other Wooded Land	**1990**	**2000**	**2005**	**1990**	**2000**	**2005**
Production	43	43	43	43	43	43
Protection of soil and water	-	-	-	161	161	163
Conservation of biodiversity	1	5	5	161	161	163
Social services	8	18	18	117	113	115
Multiple purpose	108	95	97	not appl.	not appl.	not appl.
No or unknown function	ID[1]	225	225	not appl.	not appl.	not appl.
Total Forest and Other Wooded Land	**ID[1]**	**387**	**388**	**not appl.**	**not appl.**	**not appl.**

[1] Insufficient data. This figure does not include private Other Wooded Land

3.6 Comments to National reporting table T3

The main weakness is the inability to break down the figures into separate estimates for Forest and Other Wooded Land.

4 Table T4 – Characteristics of Forest and Other wooded land

4.1 FRA 2005 Categories and definitions

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

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	M	Naturalness of forest areas	1990, 1999, 2000	Register kept by the Department of Forests on land officially declared as State forest land, including those areas classified as Nature Reserves, National Forest Parks, Minor State Forests, New Forests and areas allocated for experimental purposes.

4.2.2 Classification and definitions

National class	Definition
Undisturbed by man	Forest/other wooded land which shows natural forest dynamics, such as natural tree composition, occurrence of dead wood, natural age structure and natural regeneration processes, the area of which is large enough to maintain its natural characteristics and where there has no known significant human intervention or where the last significant human intervention was long enough ago to have allowed the natural species composition and processes to have become re-established.
Semi-natural	Forest/other wooded land, which is neither "forest/other wooded land undisturbed by man", nor "plantation" as defined separately.
Plantations	Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either: -of introduced species (all planted stands), or -intensively managed stands of indigenous species which meet all the following criteria: one or two species at plantation, even age class, regular spacing. Excludes: stands which were established as plantations but which have been without intensive management for a significant period of time. These should be considered semi-natural.

4.2.3 Original data

National class	Area (ha) [1]		
	Forest & Other Wooded Land		
	1990	2000	2003[2]
Undisturbed by man	21 507	21 507	
Semi-natural	187 084[3]	361 776	
Plantations[2]	3 259	3 347	4 329
Total	**211 850[3]**	**386 630**	

[1] There are data available only for Total Forest and Other Wooded Land.
[2] This year was selected for the information on Plantations.
[3] Insufficient Data. Data do not include private Other Wooded Land.

4.3 Analysis and processing of national data

4.3.1 Calibration

There is no need to perform any calibration

4.3.2 Estimation and forecasting

National class	Area (ha) [1]		
	Forest & Other Wooded land		
	1990	2000	2005
Undisturbed by man	21 507	21 507	21 507
Semi-natural	ID[2]	361 776	361 776
Plantations	3 259	3 347	4 977[3]
Total forest and Other Wooded Land	**ID[2]**	**386 630**	**388 260**

[1] Data available only for Total Forest and Other Wooded Land.
[2] Insufficient Data. Data do not include private Other Wooded Land.
[3] The increase is based on the inclusion of land that has been recently allocated to forestry and to be afforested by the end of 2005, as it is also shown in T.1.3.2.

4.4 Reclassification into FRA 2005 classes

National class	FRA 2005 Categories				
	Primary	Modified natural	Semi-natural	Productive Plantation	Protective Plantation
Undisturbed by man	100%	0	0	0	0
Semi-natural	0	90%[1]	10%[2]	0	0
Plantations	0	0	0	0	100%

[1] The percentage in 1990 was 94%, based on the records on reforestations/ afforestations (by any means).
[2] The percentage in 1990 was 6%, based on the records on reforestations/ afforestations (by any means).

4.5 Data for National reporting table T4

FRA 2005 Categories	Area (hectares)		
	Forest & Other wooded land[1]		
	1990	2000	2005
Primary	22	22	22
Modified natural	ID	326	326
Semi-natural	ID	36	36
Productive plantation	0	0	0
Protective plantation	3	3	5
TOTAL	**ID[2]**	**387**	**388**

[1] Data available only for Total Forest and Other Wooded Land.
[2] Insufficient Data. Data do not include private Other Wooded Land.

4.6 Comments to National reporting table T4

The main weakness is the inability to break down the Total Forest and Other Wooded Land into Forest and Other Wooded Land.

5 Table T5 – Growing stock

5.1 FRA 2005 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees more than X cm in diameter at breast height (or above buttress if these are higher). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.
Commercial growing stock	The part of the growing stock of species that are considered as commercial or potentially commercial under current market conditions, and with a diameter at breast height of Z cm or more.

5.2 National data

5.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	H	Growing stock	1981,1991, 2001	Continuous Forest Inventory of the exploitable state forests of *Pinus brutia*

5.2.2 Classification and definitions

National class	Definition
Growing stock	Volume over bark of all living trees more than 12 cm in diameter at breast height. Includes the stem from stump height up to a top diameter of 7cm. It does not include branches.

5.2.3 Original data

Forest Type		Area Covered (ha)		V (m^3) / ha		Estimated growing stock (m^3)	
		1990	2000	1990	2000	1990	2000
Pinus brutia	Management unit 1	16 203	16 157	58,9	59,1	954 357	954 879
	Management unit 2	27 019	27 016	77,8	79,0	2 102 078	2 134 264

5.3 Analysis and processing of national data

5.3.1 Calibration

There is no need to perform any calibration.

5.3.2 Estimation and forecasting

Growing Stock of Forests[1]

Type	Area Covered (ha)			V (m^3) / ha			Estimated growing stock (m^3)		
	1990	**2000**	**2005**	**1990**	**2000**	**2005**	**1990**	**2000**	**2005**
Coniferous	160 110	171 770	173 400	45[2]	45[2]	45[2]	7 204 950	7 729 650	7 803 000
Broadleaves	1 000	1 000	1 000	200[3]	200[3]	200[3]	200 000	200 000	200 000
Total	**161 110**	**172 770**	**174 400**				**7 404 950**	**7 929 650**	**8 003 000**

[1] There are no data available for Other Wooded Land.
[2] Based on experts' knowledge and estimations, the mean growing stock per hectare for all coniferous forests is **45m^3 /ha.** The growing stock data from the inventories are not used since inventories are restricted only in areas classified as most productive and exclude areas with low productivity.
[3] Based on experts' knowledge and estimation.

Commercial stock of Forests

Type	Area Covered (ha)			V (m^3) / ha			Estimated growing stock (m^3)		
	1990	**2000**	**2005**	**1990**	**2000**	**2005**	**1990**	**2000**	**2005**
Manag. Unit 1	16 203	16 157	16 157	58,9	59,1	59,2[1]	954 357	954 879	956 494
Manag. Unit 2	27 019	27 016	27 016	77,8	79,0	80,2[1]	2 102 078	2 134 264	2 166 683
Total	**43 222**	**43 173**	**43 173**				**3 056 435**	**3 089 143**	**3 123 177**

[1] Estimation based on extrapolation.

5.4 Reclassification into FRA 2005 classes

National Class	FRA 2005 Categories	
	Growing Stock	**Commercial Growing Stock**
Coniferous	100%	
Broadleaves	100%	
Management Unit 1[1]		100%
Management Unit 2[1]		100%

[1] According to Forest Classification, Management Units 1 and 2 are devoted for timber production.

5.5 Data for National reporting table T5

FRA 2005 category	Volume (million cubic meters over bark)					
	Forest			Other Wooded Land		
	1990	**2000**	**2005**	**1990**	**2000**	**2005**
Growing Stock	7.40	7.93	8.00	NDA	NDA	NDA
Commercial Stock	3.06	3.09	3.12	NDA	NDA	NDA

Specification of country threshold values	Unit	Value	Complementary information
1. Minimum diameter at breast height of trees included in Growing stock (X)	cm	12	
2. Minimum diameter at the top end of stem (Y) for calculation of Growing stock	cm	7	
3. Minimum diameter of branches included in Growing stock (W)	cm		Growing stock does not include branches
4. Minimum diameter at breast height of trees in Commercial growing stock (Z)	cm	12	
5. Volume refers to "Above ground" (AG) or "Above stump" (AS)	AG / AS	AS	
6. Have any of the above thresholds (points 1 to 4) changed since 1990	Yes/No	NO	
7. If yes, then attach a separate note giving details of the change	Attachment		

5.6 Comments to National reporting table T5

- Original data exist only for commercial growing stock and only for forest. They are estimates of high quality, based on a continuous forest inventory.
- Figures for total growing stock are based on experts' knowledge, considering all relevant parameters and areas with low productivity.
- Another weakness is the lack of data for Other Wooded Land.

6 Table T6 – Biomass stock

6.1 FRA 2005 Categories and definitions

Category	Definition
Above-ground biomass	All living biomass above the soil including stem, stump, branches, bark, seeds, and foliage.
Below-ground biomass	All living biomass of live roots. Fine roots of less than 2mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Dead wood biomass	All non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.

6.2 National data

6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	M	Growing stock	1999	Records kept by the Department of Forests.
Department of Forests 2003, Criteria and Indicators for Sustainable Forest Management, Unpublished.	M	Wood Density, BEF[1], Root-Shoot Ratio	2003	The IPCC 1996, Guidelines for National Greenhouse Gas Inventories, were used for the preparation of the Carbon Stock Indicator.

[1] Biomass Expansion Factor.

6.2.2 Classification and definitions

National class	Definition
Above-ground biomass	It corresponds to FRA 2005 definition
Below-ground biomass	It corresponds to FRA 2005 definition
Dead wood biomass	It corresponds to FRA 2005 definition

6.2.3 Original data

There are no original data on biomass. For national data reporting, the IPCC 1996 Guidelines for National Greenhouse Gas Inventories were followed. To this direction, biomass was estimated based on growing stock. Growing stock was multiplied by the average Basic Density (0,45 tons/m^3) and then multiplied by Biomass Expansion Factor (1.16), which is the average factor taking into account also the volume of tree branches, stump and foliage, resulting in an estimation of above-ground biomass.

Below-ground Biomass was estimated by multiplying the total above-ground biomass with 0.32 (root - shoot ratio).

6.3 Analysis and processing of national data

6.3.1 Calibration

There is no need to perform any calibration.

6.3.2 Estimation and forecasting

There is no need to perform any estimation or forecasting since all data are based on Growing Stock, shown on Table T5 and calculations are presented directly on T6.5

6.4 Reclassification into FRA 2005 classes

No reclassification was performed since:

-Biomass was estimated based on growing stock data as shown in Table T5.

-National categories and definitions correspond to these of FRA2005.

6.5 Data for National reporting table T6

FRA 2005 Categories	Biomass (million metric tonnes oven-dry weight)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Above-ground biomass[1]	3.86	4.14	4.18	NDA	NDA	NDA
Below-ground biomass[2]	1.24	1.32	1.34	NDA	NDA	NDA
Dead wood biomass	NDA	NDA	NDA	NDA	NDA	NDA
TOTAL	**5.10[3]**	**5.46[3]**	**5.52[3]**	**NDA**	**NDA**	**NDA**

[1] The Above-ground biomass was estimated after multiplying the Stem Biomass by the Biomass Expansion Factor which is an average factor taking into account the volume of tree branches, stump and foliage (BEF=1.16). Stem biomass is the growing stock multiplied by the average basic density, which is 0,45 tons/m^3.

[2] The Below-ground biomass was estimated after multiplying the Above-ground Biomass by 0,32 which is the average factor taking into account the volume of tree roots (root - shoot ratio = 0,32). Threshold value for root diameter is 2mm.

[3] Insufficient Data. Data do not include the dead wood biomass.

6.6 Comments to National reporting table T6

- The biomass was estimated based on growing stock data.
- The conversion factors used were general approximations and averages. They have been used in the preparation of Criteria and Indicators for SFM and provide a reasonable starting point for the current reporting requirement.
- There are No Data Available for Dead Wood volumes neither for Forest nor for Other Wooded Land.
- The biomass in Other Wooded Land cannot be estimated due to the absence of sufficient data regarding the existing growing stock in these areas.

7 Table T7 – Carbon stock

7.1 FRA 2005 Categories and definitions

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

7.2 National data

7.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	M	Growing stock	1999	Records kept by the Department of Forests.
Department of Forests 2003. Criteria and Indicators for Sustainable Forest Management, Unpublished.	M	Wood Density, BEF[1], Root-Shoot Ratio	2003	The IPCC 1996, Guidelines for National Greenhouse Gas Inventories, were used for the preparation of the Carbon Stock Indicator.

[1] Biomass Expansion Factor

7.2.2 Classification and definitions

National class	Definition
Above-ground biomass	It corresponds to FRA 2005 definition
Below-ground biomass	It corresponds to FRA 2005 definition
Dead wood biomass	It corresponds to FRA 2005 definition

7.2.3 Original data

There are no Original National Data on carbon content of living biomass. The carbon content was calculated by multiplication of the average value given by the IPCC –GPG for the carbon content of living biomass (which is 50%), by the Above-Ground Biomass and Below-Ground Biomass, as given in Table T6.
The amount of soil carbon content was estimated by multiplication of the average value given by the IPCC 1996 Guidelines for National Greenhouse Gas Inventories (which is 22,5 tons per hectare) by the areas given in Table T1.

7.3 Analysis and processing of national data

7.3.1 Calibration

There is no need to perform any calibration.

7.3.2 Estimation and forecasting

There is no need to perform any estimation or forecasting since all data are based on Biomass Stock, shown on Table T6 and areas shown on T1 and calculations are presented directly on T7.5

7.4 Reclassification into FRA 2005 classes

No reclassification was performed since National Categories and definitions correspond to FRA2005 Categories.

7.5 Data for National reporting table T7

FRA 2005 Categories	Carbon (Million metric tonnes)					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Carbon in above-ground biomass[1]	1.93	2.07	2.09	NDA	NDA	NDA
Carbon in below-ground biomass[2]	0.62	0.66	0.67	NDA	NDA	NDA
Sub-total: Carbon in living biomass	**2.55**	**2.73**	**2.76**	**NDA**	**NDA**	**NDA**
Carbon in dead wood	NDA	NDA	NDA	NDA	NDA	NDA
Carbon in litter	NDA	NDA	NDA	NDA	NDA	NDA
Sub-total: Carbon in dead wood and litter	**NDA**	**NDA**	**NDA**	**NDA**	**NDA**	**NDA**
Soil carbon[3] to a depth of 30 cm	3.63	3.89	3.92	1.14	4.81	4.81
TOTAL CARBON	**6.18[4]**	**6.62[4]**	**6.68[4]**	**1.14[5]**	**4.81[5]**	**4.81[5]**

[1] Estimated by multiplication of the Above Ground Biomass value given in T6.5 by 50%, which is the IPCC GPG average value for carbon content of living biomass.
[2] Estimated by multiplication of the Below Ground Biomass value given in T6.5 by 50%, which is the IPCC GPG average value for carbon content of living biomass
[3] Estimated by multiplication of the areas given in T1.5 by the IPCC average value which is 22,5 tons of Carbon per hectare.
[4] Insufficient Data. Data do not include the carbon in dead wood and litter
[5] Insufficient Data. Data do not include the carbon in living biomass, dead wood and litter

7.6 Comments to National reporting table T7

- The main weakness is the lack of original data on carbon content of living biomass.
- Other weaknesses include the lack of data on Dead Wood Biomass and for Other Wooded Land.

8 Table T8 – Disturbances affecting health and vitality

8.1 FRA 2005 Categories and definitions

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

8.2 National data

8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests. Database of Forest Fires	H	Burnt area	1988-1992 and 1998-2002	The Database of Forest Fires is an MS Access database kept by the Department of Forests. It includes data for each forest fire incident within state forest and other wooded land, since 1960.
Fire Service. Database of fires in private forest and other wooded land	H	Burnt area	2000-2002	The Fire Database is an MS Access database kept by the Cyprus Fire Service. It includes data for each fire incident within private forest and other wooded land, since 2000.

8.2.2 Classification and definitions

National class	Definition
Forest fires	It corresponds to FRA definition except the threshold minimum area. There is not such a threshold for minimum area.

8.2.3 Original data

Category	Average annual area affected (1000 hectares)			
	Forests		Other wooded land	
	1990 [1]	2000 [2]	1990 [1]	2000 [2]
Disturbance by fire	0.147	0.574	0.014	2.109

Notes:

[1] Data for 1990 refer only to State Forest and Other Wooded Land. The breakdown into Forest and Other Wooded Land was based on informal historical data.

[2] Data for 2000 refer not only to state but also to private Forest and Other Wooded Land. Figures are the average for the years 2000, 2001 and 2002.

8.3 Analysis and processing of national data

8.3.1 Estimation and forecasting

There is no need to perform any calibration.

8.4 Reclassification into FRA 2005 classes

Not needed.

8.5 Data for National reporting table T8

FRA-2005 Categories	Average annual area affected (1000 hectares)			
	Forests		Other wooded land	
	1990	2000	1990	2000
Disturbance by fire	0.147	0.574	0.014	2.109
Disturbance by insects	NDA	NDA	NDA	NDA
Disturbance by diseases	NDA	NDA	NDA	NDA
Other disturbance	NDA	NDA	NDA	NDA

8.6 Comments to National reporting table T8

- The main weakness is the lack of data on disturbances by factors other than fire.
- Another weakness is that data for the Disturbance by Fire before the year 2000, refer only to State Forest and Other Wooded Land.

9 Table T9 – Diversity of tree species

9.1 FRA 2005 Categories and definitions

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

9.2 National data

9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests	H	• Number of native tree species • Number of endangered species	2000	Records kept by the Department of Forests

9.2.2 Classification and definitions

National classes and definitions correspond to FRA 2005 Definition

9.2.3 Original data

Categories	Number of species (Year 2000)
Native tree species	36
Critically endangered tree species	0
Endangered tree species	0
Vulnerable tree species	1[1]

[1] The only tree species that is included in the IUCN red list is *Cedrus brevifolia* (Cyprus cedar).

9.3 Data for National reporting table T9

FRA 2005 Categories	Number of species (Year 2000)
Native tree species	36
Critically endangered tree species	0
Endangered tree species	0
Vulnerable tree species	1

9.4 Comments to National reporting table T9

- The only tree species that is included in the IUCN red list is *Cedrus brevifolia* (Cyprus cedar).
- Some of the species included in the National data attain a tree form only in advance age and under favourable conditions. Therefore very often they appear as high shrubs.
- An additional point that may be worth mentioning is that for some species it may be disputable whether they are native or not.

10 Table T10 – Growing stock composition

No information is available to support estimates for this reporting table.

11 Table T11 – Wood removal

11.1 FRA 2005 Categories and definitions

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

11.2 National data

11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of forests, 1988-1992. Annual Reports	H	Removals of roundwood over bark in m^3	1990	Statistical Summary - Tables
Department of forests, 1998-2002. Annual Reports	H	Removals of roundwood over bark in m^3	2000	Statistical Summary - Tables

11.2.2 Classification and definitions

National class	Definition
Constructional timber	Roundwood of a length over 1,5m and overbark diameter on the top 20cm and over.
Box-shooks	Roundwood of a length up to 1,5m and overbark diameter on the top 10cm and over.
Pit-props, mating poles	Roundwood of a length over 1,5m and overbark diameter on the top from 2cm up to 19cm.
Chipboard i) Logs ii) Males	Roundwood overbark of any length and overbark diameter on the top 7cm and over. Includes Roundwood not otherwise classified. Includes only branchwood.
Firewood	It corresponds to FRA 2005 definition
Other	Roundwood overbark used for the production of handle tools, wooden chairs, etc.

11.2.3 Original data

National Class	Volume in m³ of roundwood over bark			
	1990		2000	
	Forest[1]	OWL	Forest[2]	OWL
Constructional timber	24 453	NDA	10 957	NDA
Box-shooks	6 802	NDA	4 992	NDA
Pit-props, mating poles	99	NDA	34	NDA
Chipboard	11 394	NDA	4 170	NDA
i) Logs	(9 841)	NDA	(4 040)	NDA
ii) Males	(1 553)	NDA	(130)	NDA
Firewood	13 316	NDA	7 477	NDA
Other	36	NDA	3	NDA
TOTAL volume	**56 100**	NDA	**27 633**	NDA

[1] A volume of 2566 m^3 roundwood overbark (R.O.B.) was extracted from private forests. 1758 m^3 R.O.B. was constructional timber or box-shooks and 808 m^3 R.O.B. firewood.
[2] A volume of 3149 m^3 of Roundwood overbark was extracted from private forests. 2499 m^3 R.O.B. was constructional timber or box-shooks and 650 m^3 R.O.B was firewood.

11.3 Analysis and processing of national data

11.3.1 Estimation and forecasting

National Class	Volume in 1000 cubic meters of roundwood over bark					
	Forest[1]			Other wooded land		
	1990	2000	2005[2]	1990	2000	2005
Constructional timber	25	11	5	NDA	NDA	NDA
Box-shooks	7	5	4	NDA	NDA	NDA
Pit-props, mating poles	0	0	0	NDA	NDA	NDA
Chipboard	11	4	0	NDA	NDA	NDA
Firewood	13	8	4	NDA	NDA	NDA
Other	0	0	0	NDA	NDA	NDA
TOTAL volume	**56**	**28** [3]	**13**[3]	**NDA**	**NDA**	**NDA**

[1] Volumes refer both to State and Private forests.
[2] The Annual Yield for the ten-year-period 2002 – 2011, concerning the State forests was set to 8 000 m3 R.O.B.
[3] The total wood removal is decreased but the area designated for wood production remains the same in order to increase growing stock and improve forest structure.

11.4 Reclassification into FRA 2005 classes

National class	FRA 2005 Categories		
	Industrial roundwood	Woodfuel	Total
Constructional timber	100%		100%
Box-shooks	100%		100%
Pit-props, mating poles	100%		100%
Other	100%		100%
Chipboard	100%		100%
Firewood		100%	100%

11.5 Data for National reporting table T11

FRA 2005 Categories	Volume in 1000 cubic meters of roundwood over bark					
	Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005
Industrial roundwood	43	20	9	0	0	0
Woodfuel	13	8	4	NDA	NDA	NDA
TOTAL for Country	**56**	**28**	**13**	**NDA**	**NDA**	**NDA**

11.6 Comments to National reporting table T11

The main weakness in the existing national data is the lack of any data on the removal of roundwood from the category of "Other Wooded Land".

12 Table T12 – Value of wood removal

12.1 FRA 2005 Categories and definitions

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

12.2 National data

12.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests, 1988-1992. Annual Reports	H	Forest Revenue collected[1]	1990	Statistical Summary - Tables
Department of Forests, 1998-2002. Annual Reports	H	Forest Revenue collected[1]	2000	Statistical Summary - Tables

[1] Data refer to wood removals only from state forests.

12.2.2 Classification and definitions

National class	Definition
Value of industrial wood removal	It corresponds to FRA Categories
Value of woodfuel removal	It corresponds to FRA Categories

12.2.3 Original data

National Class	Revenue in CY £			
	Forest[1]		Other Wooded Land	
	1990	2000	1990	2000
Value of industrial wood removal	585 008	324 641	NDA	NDA
Value of woodfuel removal	61 152	54 736	NDA	NDA
TOTAL value	**646 160**	**379 377**	**NDA**	**NDA**

[1] Insufficient Data. Data refer to wood removals only from state forests.

12.3 Analysis and processing of national data

12.3.1 Estimation and forecasting

National class	Value per m^3 R.O.B. in CY £						Revenue. in CY £[2]					
	Forest			Other wooded land			Forest			Other wooded land		
	1990	2000	2005	1990	2000	2005[1]	1990	2000	2005	1990	2000	2005
Value of industrial wood removal	14.26	18.39	20.00	NDA	NDA	NDA	613 180	367 800	180 000	NDA	NDA	NDA
Value of woodfuel removal	4.89	8.02	8.50	NDA	NDA	NDA	63 570	64 160	34 000	NDA	NDA	NDA

[1] Forecasting is based on experts' knowledge.
[2] These figures were derived by multiplication of the value per m^3 R.O.B. by the volumes given in Table T11.5.

12.4 Reclassification into FRA 2005 classes

No reclassification is needed.

12.5 Data for National reporting table T12

FRA 2005 Categories	Value of roundwood removal (1000 USD)					
	Forest			Other wooded land[1]		
	1990[2]	2000[3]	2005[4]	1990[2]	2000[3]	2005[4]
Industrial roundwood	1 332	637	379	NDA	NDA	NDA
Woodfuel	138	111	72	NDA	NDA	NDA
TOTAL for Country	**1 470**	**748**	**451**	**NDA**	**NDA**	**NDA**

[1] No data or knowledge is available concerning the roundwood removals from Other Wooded Land.
[2] The exchange rate of 0.4603 (US Dollar to Cyprus Pound) is the average for the years 1988-1992.
[3] The exchange rate of 0.5773 (US Dollar to Cyprus Pound) is the average for the years1998-2002.
[4] Based on experts' knowledge, the exchange rate for this year is forecasted to be 0.4750 (US Dollar to Cyprus Pound).

12.6 Comments to National reporting table T12

The main weakness in the existing national data is the lack of any data on the removal of roundwood from the category of "Other Wooded Land".

13 Table T13 – Non-wood forest product removal

13.1 FRA 2005 Categories and definitions

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

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

13.2 National data

13.2.1 Data sources

References to sources of information	**Quality (H/M/L)**	**Variable(s)**	**Year(s)**	**Additional comments**
Department of Agriculture 2001 Beehives Management.	H	Livestock Production (Honey)	2001	Beehives are placed on rural areas and mainly on other wooded land.
Department of Agriculture 2002 Honey Census, (Internal Report)	H		2002	
Statistical Service 2001 Agriculture Statistics for 2001. Ministry of Finance. Government Printing Office, Nicosia.	H		2001	
FAO 2001. Non Wood Forest Products In the Near East: A Regional and National Overview. Working Paper FOPW/01/2 p.p. 23-27.	H	Plant production (Aromatic)	2001	

Statistical Service 2001 Agriculture Statistics for 2001. Ministry of Finance. Government Printing Office, Nicosia. FAO 2001. Non Wood Forest Products In the Near East: A Regional and National Overview. Working Paper FOPW/01/2 p.p. 23-27	H M	Fruits and Tree Plantations (Carob)	2001 1995	The data used from this report referred only to the distribution of carob trees on land.

13.2.2 Classification and definitions

National class	Definition
HONEY	Net honey without the bee-wax.
Raw material for aromatic products	Raw material for aromatic products
Carobs	Fruits of the tree *Ceratonia siliqua*

13.2.3 Original data

Product Category	Scale Factor	Unit	NWFP removal			
			1990	1999	2000	2001
Honey[1]		t	610[3]	NDA	744[4]	NDA
Aromatic plants[2]		t	NDA	181	NDA	NDA
Carob[5]		t	NDA	NDA	NDA	ID[5]

[1] Reported data referred to all types of land and not only to forest and other wooded land. Most of honey quantities are collected from beehives placed permanently or temporarily in wooded areas for natural feeding. Supported / artificial bee feeding is very limited. There are no separate data for areas outside wooded areas.

[2] Reported data referred to forest, other wooded land and plantations.

[3] Reported figure is the average of the sum for the years 1989, 1991 and 1992.

[4] Reported figure is the average of the sum for the reference period 1998-2002.

[5] There are available data only for 2001 (2850 tones) but they refer to all types of land and not only to forest and other wooded land. Carobs are collected only from grafted trees. Production from wild trees and shrubs, found in wooded areas, are not collected. Most of the production comes from agricultural land and the rest from old cultivations or scattered grafted trees found in other wooded land. Available data refer to the total carob production.

13.3 Analysis and processing of national data

13.3.1 Estimation and forecasting

Product Category	Scale Factor	Unit	NWFP removal		
			1990	2000	2005
Honey		t	610	744	811[1]
Aromatic plants		t	NDA	181	NDA[2]
Carob		t	NDA	ID [3]	NDA

[1]The forecast for 2005 was based on linear extrapolation

[2]Forecasting is impossible as there are data available only for one year.

3 Insufficient Data. There are available data only for 2001 (2850 tones) and they refer to all types of land and not only to forest and other wooded land

13.4 Reclassification into FRA 2005 classes

National class	FRA 2005 classes		
	Wild honey and bee-wax	Raw material for medicine and aromatic products	Food
Honey without the bee-wax	100%		
Aromatic plants		100%	
Carob			100%

13.5 Data for National reporting table T13

FRA 2005 Categories	Scale factor	Unit	NWFP removal		
			1990	2000	2005
Plant products / raw material					
1. Food		t	NDA	ID [1]	NDA
2. Fodder					
3. Raw material for medicine and aromatic products		t	NDA	181	NDA
4. Raw material for colorants and dyes					
5. Raw material for utensils, handicrafts & construction					
6. Ornamental plants					
7. Exudates					
8. Other plant products					
Animal products / raw material					
9. Living animals					
10. Hides, skins and trophies					
11. Wild honey and bee-wax		t	610[2]	744[2]	811[2]
12. Bush meat					
13. Raw material for medicine					
14. Raw material for colorants					
15. Other edible animal products					
16. Other non-edible animal products					

[1] Insufficient Data. Only some of the data available refer to forest and other wooded land and they refer only to carobs.

[2] Net honey without the bee-wax. It includes quantities that are collected in areas outside forest areas or other wooded land, which is currently impossible to separate.

13.6 Comments to National reporting table T13

The main weakness in the existing National Data is the lack of a national mechanism to keep records for a number of products.
Data available for Bee Honey and Carobs refer to all types of land and not only to forest and other wooded land.

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

14.1 FRA 2005 Categories and definitions

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

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

14.2 National data

14.2.1 Data sources

References to sources of information	**Quality (H/M/L)**	**Variable(s)**	**Year(s)**	**Additional comments**
Department of Agriculture 2001, Beehives Management.	H	Livestock Production (Honey)	2001	Beehives are placed on rural areas and mainly on other wooded land.
Department of Agriculture 2002 Honey Census, (Internal Report)	H		2002	
Statistical Service 2001 Agriculture Statistics for 2001. Ministry of Finance. Government Printing Office, Nicosia.	H		2001	
FAO 2001. Non Wood Forest Products In the Near East: A Regional and National Overview.	H	Plant production (Aromatic)	2001	

Working Paper FOPW/01/2 p.p. 23-27.				
FAO 2001. Non Wood Forest Products In the Near East: A Regional and National Overview. Working Paper FOPW/01/2 p.p. 23-27 Statistical Service 2001 Agriculture Statistics for 2001. Ministry of Finance. Government Printing Office, Nicosia.)	M H	Fruits and Tree Plantations (Carob)	1995 2001	The data used from FAO (2001) report referred only to the carob trees distribution on the land.

14.2.2 Classification and definitions

National class	Definition
Honey	Net honey without the bee-wax
Raw material for aromatic products	Raw material for aromatic products
Carob	Fruits of the tree *Ceratonia siliqua*

14.2.3 Original data

Product Category	Scale Factor	Unit	Value of the NWFP removed (1000USD)		
			1990	1999	2001
Honey[1]					4 229
Aromatic plants[2]				298	
Carob[3]					ID[3]

[1] Reported data referred to all types of land and not only to forest and other wooded land. Most of honey quantities are collected from beehives placed permanently or temporarily in wooded areas for natural feeding. Supported / artificial bee feeding is very limited. There are not separate data for areas outside wooded areas.

[2] Reported data referred to forest, other wooded land and plantations.

[3] There are available data only for 2001 (421,4) but they refer to all types of land and not only to forest and other wooded land. Carobs are collected only from grafted trees. Production from wild trees and shrubs, found in wooded areas, are not collected. Most of the production comes from agricultural land and the rest from old cultivations or scattered grafted trees found in other wooded land. Available data refer to the total carob production.

14.3 Analysis and processing of national data

14.3.1 Estimation and forecasting

Product Category	Scale Factor	Value of the of NWFP removed (1000 USD)		
		1990	2000	2005
Honey		NDA[1]	4 229	NDA[1]
Aromatic plants		NDA[1]	298	NDA[1]
Carob		NDA	ID	NDA

[1] Estimation and/or forecasting are impossible as there are data available only for one year.

14.4 Reclassification into FRA 2005 classes

National class	FRA 2005 classes		
	Wild honey and bee-wax	Raw material for medicine and aromatic products	Food
Honey without the bee-wax	100%		
Aromatic plants		100%	
Carob			100%

14.5 Data for National reporting table T14

FRA 2005 Categories	Value of the of NWFP removed (1000 USD)		
	1990	**2000**	**2005**
Plant products / raw material			
1. Food	NDA	ID[1]	NDA
2. Fodder			
3. Raw material for medicine and aromatic products	NDA	298	NDA
4. Raw material for colorants and dyes			
5. Raw material for utensils, handicrafts & construction			
6. Ornamental plants			
7. Exudates			
8. Other plant products			
Animal products / raw material			
9. Living animals			
10. Hides, skins and trophies			
11. Wild honey and bee-wax	NDA	4 229 [2]	NDA
12. Bush meat			
13. Raw material for medicine			
14. Raw material for colorants			
15. Other edible animal products			
16. Other non-edible animal products			
TOTAL		**4 527**	NDA

[1] Insufficient Data. Only some of the data available refer to forest and other wooded land and they refer only to carobs.

[2] Net honey without the bee-wax. It includes quantities that are collected in areas outside forest areas or other wooded land, which is currently impossible to exclude.

14.6 Comments to National reporting table T14

- The main weakness in the existing National Data is the lack of a national mechanism to keep records for a number of products.
- Another weakness is the inability to report value figures although there are quantity figures.

15 Table T15 – Employment in forestry

15.1 FRA 2005 Categories and definitions

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

15.2 National data

15.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Department of Forests, 1990. Annual Report	H	Staff and labour	1990	Employment in the forest sector
Department of Forests, 2000. Annual Report	H	Staff and labour	2000	Employment in the forest sector

15.2.2 Classification and definitions

National class	Definition
Foresters	The foresters employed by the Department of Forests
Regular Labourers	Labourers employed by the Department of Forests on a permanent basis
Casual Labourers	Labourers employed by the Department of Forests on a temporary basis (less than a year)
Labourers employed by private contractors for wood removal from State Forest areas	Self-explained
Labourers employed by private contractors for wood removal from private forest areas	Self-explained

15.2.3 Original data

National Category	Employment (persons)	
	1990	2000
Foresters	254	281
Regular labourers	141	158
Casual labourers	87	174[1]
Labourers employed by private contractors for wood removal from State Forest2	73	23[3]
Labourers employed by private contractors for wood removal from private forest areas	5	2
TOTAL	**560**	**638**

1 The increase from 1990 to 2000 is due to the increased employment of workforce for fire protection purposes and the upgraded role of the Department of Forests for the provision of recreational facilities, as it derives from the change in managerial priorities for forests.

[2] Calculated number. It is assumed that a labourer can remove from the forest 5m^3 per day. Before 1995, it was assumed that a labourer could remove 4 m^3 per day.

[3] There is a significant decrease between 1990 and 2000 as the total wood removal from forests has been significantly decreased.

15.3 Analysis and processing of national data

15.3.1 Estimation and forecasting

There is no need to perform any estimation or forecasting.

15.4 Reclassification into FRA 2005 classes1

National Category	FRA 2005 Categories		
	Primary production of goods	**Provision of services**	**Unspecified forestry activities**
Foresters	0	0	100%
Regular labourers employed directly by the Department of Forests	0	0	100%
Casual labourers employed directly by the Department of Forests	0	0	100%
Labourers employed by private contractors for wood removal from State Forest	100%	0	0
Labourers employed by private contractors for wood removal from private forest areas	100%	0	0

[1]It is not possible to give separate figures on the primary production of goods and on the provision of services.

15.5 Data for National reporting table T15

FRA 2005 Categories	Employment (1000 person-years)	
	1990	**2000**
Primary production of goods	0.078	0.025
Provision of services	0	0
Unspecified forestry activities	0.482	0.613
TOTAL	**0.560**	**0.638**

15.6 Comments to National reporting table T15

The only weakness in the existing national data is the inability to give separate figures on primary production and on the provision of services.