



**Forestry Department**

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

**GLOBAL FOREST RESOURCES  
ASSESSMENT 2010**

**COUNTRY REPORT**

**VANUATU**

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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](http://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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# 1 Table T1 – Extent of Forest and Other wooded land

## 1.1 FRA 2010 Categories and definitions

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

## 1.2 National data

### 1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Baldwin P. Hidson J.Siebuht J. Pedro F. 1993 Forest Resources of Vanuatu	H	Forest, OWL, Other land	1992	A summary of the forest resources of Vanuatu
FAOSTAT. 2009	H	Land area, Inland water	all	

### 1.2.2 Classification and definitions

National class	Definition
Mid height forest (20-30m)	Mid height forest with emergents (Fme) Mid height forest with Agathis- Calophyllum (FgCl) Mid height forest with Calophyllum (FmeClAg) Mid height forest with Kleinhovia hospital (FmKh) Mid height forest with small to medium crowns (Fmml) Mid height forest with small to medium crowns; medium dense remnants (Fmm2) Mid height forest with small to medium crowns; sparse remnants (Fmmo3) Mid height forest with an open canopy (Fmo) Mid height forest with an open canopy; dense remnants (Fmol) Mid height forest with an open canopy; medium dense remnants (Fmmo3) Mid height forest with an open canopy; with Calophyllum; local Agathis (FmoCl) Mid height forest with an canopy, with emergents (Fmoe) Mid height forest with small crowns (Fms) Mid height forest with Metrosideros-weinmannia(FmW)

Low forest (10-20m)	<p>Low forest</p> <p>Low forest with <i>Acacia spirorbis</i> (FIAs)</p> <p>Low forest with <i>Barringtonia asiatica</i> (FIBa)</p> <p>Low forest dominated by <i>Casuarina equisetifolia</i> (FICe)</p> <p>Low forest with <i>Calophyllum neo-ebudicum</i> (FICI)</p> <p>Low forest with <i>Metrosideros</i> (FIM)</p> <p>Low forest with <i>Metrosideros weinmannia</i>(FIMW)</p> <p>Low forest with mixed species composition (FIMx)</p> <p>Low forest with a high proportion of deciduous trees(Flid)</p> <p>Low forest with emergents (Fle)</p> <p>Low forest with <i>Kleinhovia hospital</i> (FIKh)</p> <p>Low forest with medium crowns (Flm)</p> <p>Low forest with medium crowns and emergents (Flme)</p> <p>Low forest with an open canopy (Flo)</p> <p>Low forest with an open canopy; medium dense remnants (Flo2)</p> <p>Low forest with an open canopy; dominated by <i>Acacia spirorbis</i> (FloAs)</p> <p>Low forest with small crowns (Fls)</p> <p>Low forest; swampy (Flsw)</p>
Woodland (<10m)	Woodland dominated by <i>Acacia spirorbis</i> (WAs)
Thicket (3-8m)	<p>Thicket of unspecified composition (T)</p> <p>Thicket with <i>Agathis-Calophyllum</i> (TAg)</p> <p>Thicket dominated by <i>Acacia spirorbis</i> (TAs)</p> <p>Thicket dominated by <i>Acacia spirorbis</i> and <i>Casuarina equisetifolia</i> (TAsCe)</p> <p>Thicket dominated by <i>Hibiscus tiliaceus</i>(TB)</p> <p>Thicket dominated by <i>Hibiscus tiliaceus</i> and palms (TBPI)</p> <p>Thicket dominated by <i>Casuarina equisetifolia</i> (TCe)</p> <p>Thicket dominated by tree ferns (TF)</p> <p>Thicket dominated by tree ferns and <i>Casuarina equisetifolia</i> (TFCe)</p> <p>Thicket dominated by tree ferns and palms (TFPI)</p> <p>Thicket dominated by <i>Leucaena</i> (TL)</p> <p>Thicket dominated by <i>Leucaena</i> and <i>Acacia spirorbis</i> (TLAs)</p> <p>Thicket of <i>Leucaena</i> and mixed species (TLMx)</p> <p>Thicket with <i>Metrosideros-Weinmannia</i> (TMW)</p> <p>Thicket with <i>Metrosideros</i> and <i>Pandanus</i></p> <p>Thicket of mixed species (TMx)</p> <p>Thicket of mixed species and palms (TMxPI)</p> <p>Thicket dominated by <i>Pandanus</i> and tree ferns (TPF)</p> <p>Thicket dominated by <i>Pandanus</i> (TP)</p> <p>Thicket dominated by <i>Psidium goyava</i> (TPg)</p> <p>Thicket dominated by palms and <i>Casuarina equisetifolia</i> (TPICe)</p>
Scrub(<3m)	<p>Scrub of unspecified composition (S)</p> <p>Low scrub of <i>Vaccinium – Cyperaceae</i> (SV)</p>
Grassland	<p>Grassland and /or herbaceous communities (G)</p> <p>Tall grassland (Gt)</p>
Swamp	<p>Swamp community complex (Sw)</p> <p>Herbaceous swamp (Swg)</p> <p>Woody swamp(Sww)</p> <p>Sago swamp (SwMs)</p>
Mangrove	Mangrove communities
Bare ground	Bare ground or man-made

## Classifications and descriptions as defined in the Vanuatu Resource Information System (VANRIS)

Vegetation Type	Definition
Forests	Land with forest having tree canopy greater than 10m in height. This includes mid height forests of 20-30m and low forests 10-20 meters. The main type of forests that contain most of our commercial timber species for timber productions
Wood land (<10m)	Forest areas with separated crowns, generally <10m tall. A clearly visible ground layer of herbs and /or small grasses.
Thickets (3-8m)	Forests with dense canopy of poorly formed trees and/or other arborescent life forms 3 to 8 m tall and no ground layer being visible.
Scrub (<3m)	Forests that are dense to open layer of shrubs and <3m tall.
Grassland or Herbaceous communities	Land covers consisting of grasses, sedges, herbs and low woody shrubs. Few scattered trees may be present
Fresh water Swamp communities	Land having a complex comprising thicket, scrub and herbaceous vegetation. It is subjected to permanent or near permanent inundation. Other where possible it can be mapped as woody or herbaceous.
Mangrove communities	Forest areas also having a complex comprising low trees, shrubs and herbs subjected to tidal inundation
Bare ground/man made	Land areas where there is man made activities going on. It could be agricultural subsistence farming or any other activities or development made by inhabitants within the area

*Vanris Handbook, J.A. Bellamy*

### 1.2.3 Original data

Vegetation classifications into 9 categories

Vegetation Type	Area (Ha)
Mid height forest (20-30m)	205,307
Low forests (10-20m)	234,089
Wood land (<10m)	386
Thickets (3-8m)	433941
Scrub (<3m)	45018
Grassland	51128
Swamp communities	2261
Mangrove communities	2519
Bare ground/man made	252256
<b>Total Land area</b>	<b>1226905</b>

*Reference Year 1992*

## 1.3 Analysis and processing of national data

### 1.3.1 Calibration

The national total land area does not correspond to the official FAOSTAT figures, so a calibration factor of 1.0065 has been applied.

Source	Total Land Area
National data	1226905
FAOSTAT	1219000
Calibration factor	1.00648

### Calibrated national data

<b>Vegetation Type</b>	<b>Area (1000ha)</b>
Mid height forest (20-30m)	204.0
Low forests (10-20m)	232.6
Wood land (<10m)	0.4
Thickets (3-8m)	431.1
Scrub (<3m)	44.7
Grassland	50.9
Swamp communities	2.2
Mangrove communities	2.5
Bare ground/man made	250.6
<b>Total Land area</b>	<b>1219</b>

### 1.3.2 Estimation and forecasting

Not applicable, data are only available for one point of time.

### 1.3.3 Reclassification into FRA 2010 categories

<b>National Class</b>	<b>Forest</b>	<b>OWL</b>	<b>Other land</b>
Mid height forest (20-30m)	100%		
Low forests (10-20m)	100%		
Wood land (<10m)	100%		
Thickets (3-8m)		100%	
Scrub (<3m)		100%	
Grassland			100%
Swamp communities			100%
Mangrove communities	100%		
Bare ground/man made			100%

### 1.4 Data for Table T1

<b>FRA 2010 categories</b>	<b>Area (1000 hectares)</b>			
	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
Forest	440	440	440	440
Other wooded land	476	476	476	476
Other land	304	304	304	304
...of which with tree cover	n.a.	n.a.	n.a.	n.a.
Inland water bodies	0	0	0	0
<b>TOTAL</b>	<b>1220</b>	<b>1220</b>	<b>1220</b>	<b>1220</b>



## 1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		Due to the fact that only one major national forest inventory has been carried out in Vanuatu, it not possible to make trend estimates
Other wooded land		
Other land		
Other land with tree cover		
Inland water bodies		

Other general comments to the table
<p>At this stage, Vanuatu is not in a better position yet to provide an exact land size of the extent of forests and other wooded land in Vanuatu. The Department of Forests still relying on the National Forest Inventory Data gathered in 1989 – 1992 which is 17 years old data. If Vanuatu undergo another National Forestry Inventory in the future then reliable data should be used to report on to FRA as required.</p> <p>Vanuatu forests must be resurveyed and forest zoning as one of the priorities stated in the National Forest Policy in identifying land best suitable for production, protection and conversion. This will enable efficient reporting against each forest land types as stated above.</p>

Expected year for completion of ongoing/planned national forest inventory and/or RS survey / mapping	
Field inventory	Proposal being delayed for funding therefore gone passed the proposed date for these activities (Forest Sector Plan Project Proposal).
Remote sensing survey / mapping	None as depended a lot on the above comment.

## 2 Table T2 – Forest ownership and management rights

Data is not available for this reporting table.

### 2.1 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		No surveys has determine a possible trend of public ownership on forests in Vanuatu.
Private ownership		There are some private institutions owning some Sandalwood plantations under leased lands. Actually they own the trees in their plantations established. Only three private institutions (Far North Timber Sales, Equity Investment and Tropical Rainforest aromatics) have been establishing three Sandalwood plantations on Efate while the only largest sawmill industry in Santo/Vanuatu owns a whitewood plantation. However the number of plantations owned is very small compared to woodlots owned by the indigenous.
Other types of ownership		
Management rights		

Other general comments to the table

### 3 Table T3 – Forest designation and management

#### 3.1 FRA 2010 Categories and definitions

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

#### 3.2 National data

##### 3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Conservation unit, Department of Forests,	H		2005, 2007	Summary of existing and proposed conservation areas
Environment Unit	H		1990	Protected areas

### 3.2.2 Classification and definitions

National class	Definition
Production Forests	Production forests are forests identified and mapped for which the main management emphasis will be on long term timber production and further classified into:- <ul style="list-style-type: none"> <li>• Natural forests management areas</li> <li>• Land suitable for plantation reforestation</li> <li>• Cleared land suitable for afforestation</li> </ul>
Protection Forests	A forests declared as a Protected area purposely referring to environment and promote forest development consistent with the principals of sustainable development, recognition and respect the rights of resource owners on protecting sites of cultural, historical, archaeological, geomorphic, biological or spiritual significance. In addition to this promoting the conservation measures for flora and fauna, maintain forest regenerative capacity and species diversity, ensure the health and safety of forest workers and maximize the economic return from the forests
Conversion Forests	Forest areas where they are suitable to be cleared for alternative land uses.
Uncommitted Forests	Forests areas where a use classification has not yet been determined. It can be converted into any three forest types stated above.

### 3.2.3 Original data

Vanuatu Department of forests has data on both existing and proposed conservation/protected areas in Vanuatu. The areas have been mapped by on screen digitising and yet to be properly mapped using GPS to get precise location of the individual areas.

#### 1. Existing Declared Protected areas

Conservation Area	Location	Forest Type conserved	Area (ha)
Erromango Kauri Reserve	Happy Land, South Erromango	Mid height forests	3,025
Wiawi Protected Area	Wiawi, NE Malekula	Coastal & lowland forests	1,056
Vatthe Conservation Area	Big Bay, NE Santo	Coastal & Lowland forests	2,760
Loru Protected Area	Khole, East Santo	Coastal & Lowland forest	50
Etaslep Protected area	East Efate	Cultural trees Banyan trees and flying foxes	5
Efate Reserve Park	Teuoma, Efate	Mid height forests with native stands and water catchment, etc	19
<b>TOTAL</b>			<b>6,915</b>

#### 2. Proposed conservation areas

Conservation Area	Location	Forest Type conserved	Area (ha)
Antioch area	South east Erromango	Native forests	2,000
Nagingo point Ex- Situ area	Tangoa, South Santo	Coastal forests	3,000
Middle bush area	NW Tanna	Cultural site	265
Nevnal area	Leviamp, Malekula	Marine areas	400
Pankumu area	Unua/Tisman	Water catchment area	215
Aserehubwe area	Labwaru, N Pentecost	Lowland forests, wildlife, and native forests	355
Bai area	Bai, N Epi	Historical sites	150
Spuaki area	Mere, Nguna	Coastal forests	120
Vanboug area	Namaram, C Pentecost	Coastal and low land forests	300
Togongo and Borgalia area	Burumba, Epi	Low land forests	200
Nial ex-situ area	Malekula	Cultural sites	500
Namal area	Tanna	Cultural sites	110
Veyuwi area	Erromango	Cultural sites	430
Rapuot area	S Pentecost	Cultural sites	325
Lambubu area	Lambubu, Malekula	Marine and Mangrove ecosystems	119
Hiu Island Reserve	Hiu, Torres	Coconut crabs	300

Loh Island Reserve	Loh, Torres	Coconut crabs	200
Tegua Island Reserve	Tegua, Torres	Coconut crabs	90
Lasenuwei	Malekula	Marine	<b>1,000</b>
Vendid pik	Bamboo Bay, Malekula	Coastal forests	260
Lakorombanga Protected Area	Dixon Reef, Malekula	Water source & mangrove ecosystems	4,390
Lasenuwei Protected Area	Lasenuwei, Malekula	Coastal forests & Swampy wildlife	1,000
Neval Conservation Area	Malekula	Lowland forests	530
			<b>16,259</b>

### 3.3 Data for Table T3

Data is not available for this reporting table.

## 4 Table T4 – Forest characteristics

### 4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
<b>Characteristics categories</b>	
Primary forest	Naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
Other naturally regenerated forest of introduced species (sub-category)	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species (sub-category)	Planted forest, where the planted/seeded trees are predominantly of introduced species.
<b>Special categories</b>	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

### 4.2 National data

#### 4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
The world's mangroves 1980-2005. 2007. FAO Forestry Paper 153	M	Mangroves		

### 4.3 Data for Table T4

**Table 4a**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest				
Other naturally regenerated forest				
...of which of introduced species				
Planted forest				
...of which of introduced species				
<b>TOTAL</b>				

**Table 4b**

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	2.7	2.5	2.5	2.5
Bamboo (Forest and OWL)	n.a.	n.a.	n.a.	n.a.

1989-1991 National Inventory Survey reported Bamboo was observed to be in the other woody land therefore it falls into the national categories of Woodland or Thickets.

### 4.4 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		
Other naturally regenerating forest		
Planted forest		
Rubber plantations		
Mangroves		
Bamboo		

Other general comments to the table

## **5 Table T5 – Forest establishment and reforestation**

Data is not available for this reporting table.

## **6 Table T6 – Growing stock**

Data is not available for this reporting table.

## **7 Table T7 – Biomass stock**

Data is not available for this reporting table.

## **8 Table T8 – Carbon stock**

Data is not available for this reporting table.

## **9 Table T9 – Forest fires**

Data not available and forest fires not applicable in Vanuatu. Currently fire is not a major problem in the natural forests compared to other countries. Planned fires actually occur on new gardens except that when it is uncontrollable it may result in spreading fires to other parts but still it is easy to control it. As stated in the new forestry act, it only legislate the prevention measures for igniting forest fires.

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

Data is not available for this reporting table.



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

### 11.1 FRA 2010 Categories and definitions

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

### 11.2 National data

#### 11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FAOSTAT. 2009	M	-Industrial roundwood production  -Wood fuel production	1988-1992 1998-2002 2003-2007  1988-1992 1998-2002 2003-2007	Removals under bark

#### 11.2.2 Original data

Year	m <sup>3</sup> (u.b.)					1000 m <sup>3</sup>	
	1988	1989	1990	1991	1992	Average	Over bark
Industrial roundwood (under bark)	39200	39200	39200	39200	39200	39	45
Woodfuel	24000	24000	24000	24000	24000	24	28
Year	1998	1999	2000	2001	2002		
Industrial roundwood	33800	41000	40000	28000	28000	34	39
Woodfuel	24000	91000	91000	91000	91000	78	89
Year	2003	2004	2005	2006	2007		
Industrial roundwood	28000	28000	28000	28000	28000	28	32
Woodfuel	91000	91000	91000	91000	91000	91	105

### 11.3 Analysis and processing of national data

#### 11.3.1 Calibration

A conversion factor of 1.15 was applied to convert under bark to over bark.

#### 11.3.2 Estimation and forecasting

The average yearly data from 1988-1992 was used as the estimate for 1990, the average yearly data from 1998-2002 was used as the estimate for 2000 and the average yearly data from 2003-2007 was used to estimate 2005.

### 11.3.3 Reclassification into FRA 2010 categories

Industrial round wood is 100% industrial wood removal

Wood fuel production is 100% wood fuel removal

### 11.4 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m <sup>3</sup> o.b.)	45	39	32	28	89	105
... of which from forest	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Unit value (Vatu / m <sup>3</sup> o.b.)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total value (1000 local currency)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

	1990	2000	2005
Name of local currency (Vatu)			

### 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 big increase between 1990 to 2000. During those years there were a lot of large scale companies operating under logging contracts (Timber rights agreement. A few years later, most ceased their operations due to limited availability of resources to support the continuity of the industries. From 2004 to 2006, Forestry promoted small scaling operations and from there onwards >100 small sawmills operating in Vanuatu
Total volume of woodfuel removals		The quantity might be increased in the future due population pressure.
Unit value		
Total value		

#### Other general comments to the table

Since the islands of Vanuatu are scattered, it is very expensive to monitor saw millers at regular basis in the sense that Forestry budget allocation is limited. Otherwise forestry depends a lot on external projects where field forest officers can implement these activities.

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

Data is not available for reporting table.

## **13 Table T13 – Employment**

Data is not available for this reporting table.

## 14 Table T14 – Policy and legal framework

### 14.1 FRA 2010 Categories and definitions

Term	Definition
Forest policy	A set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest and tree resources for the benefit of society.
Forest policy statement	A document that describes the objectives, priorities and means for implementation of the forest policy.
National forest programme (nfp)	A generic expression that refers to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels. The national forest programme provides a framework and guidance for country-driven forest sector development with participation of all stakeholders and in consistence with policies of other sectors and international policies.
Law (Act or Code) on forest	A set of rules enacted by the legislative authority of a country regulating the access, management, conservation and use of forest resources.

### 14.2 Data for Table T14

Indicate the existence of the following (2008)			
<b>Forest policy statement with national scope</b>	<input checked="" type="checkbox"/>	Yes	
	<input type="checkbox"/>	No	
If Yes above, provide:	Year of endorsement	1997	
	Reference to document	Vanuatu National Forest Policy (VNFP)	
<b>National forest programme (nfp)</b>	<input checked="" type="checkbox"/>	Yes, but effectively in the past	
	<input type="checkbox"/>	No	
If Yes above, provide:	Name of nfp in country	In the case of Vanuatu , nfp was in the form of smaller projects such as Vanuatu Sustainable Forest Utilization Project targeting the sustainable management of natural stands and SPRIG Project which leads to identifying the five major commercial priority species to be focused on in replanting.	
	Starting year	1996, 1998	
	Current status	<input type="checkbox"/>	In formulation
		<input checked="" type="checkbox"/>	In implementation (partly) both projects been completed and ended in early 2000.
		<input type="checkbox"/>	Under revision
Reference to document or web site	<input checked="" type="checkbox"/>	Process temporarily suspended	
<b>Law (Act or Code) on forest with national scope</b>	<input checked="" type="checkbox"/>	Yes, specific forest law exists	
	<input type="checkbox"/>	Yes, but rules on forests are incorporated in other (broader) legislation	
	<input type="checkbox"/>	No, forest issues are not regulated by national legislation	

If Yes above, provide:	Year of enactment	1985
	Year of latest amendment	2001
	Reference to document	Forestry Act [CAP 147]

<b>In case the responsibility for forest policy- and/or forest law-making is decentralized, please indicate the existence of the following and explain in the comments below the table how the responsibility for forest policy- and law-making is organized in your country.</b>		
<b>Sub-national forest policy statements</b>	<input checked="" type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If Yes above, indicate the number of regions/states/provinces with forest policy statements	6 (Tafea, Shefa, Malampa, Sanma, Penama, Torba)	
<b>Sub-national Laws (Acts or Codes) on forest</b>	<input checked="" type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If Yes above, indicate the number of regions/states/provinces with Laws on forests	6 , But have their own by- laws and REDI(Rural Environmental Development Initiatives) programs	

### 14.3 Comments to Table T14

Variable / category	Comments related to data, definitions, etc.
Forest policy statement with national scope	<i>The Government of Vanuatu will work cooperatively with the landowners and the forest industries to achieve sustainable forest management and thereby encourage revenue generation for ni-vanuatu landowners, economic development for the wider community and conservation of Vanuatu's forest biodiversity.</i>
National forest programme (nfp)	Department of Forest used to actively implementing its National forest programme with existence of the AusAID funded projects such as Vanuatu Sustainable Forest Utilization and SPRIGG Projects. When the projects ended, Department of Forestry introduces a reforestation program of producing 80,000 seedlings a year. So far a number of 60,000 seedlings are planted annually and it is continuous national forest programme throughout the country. The establishment of the Local Supply Plantations (LSP) and Industrial Forest Plantations (IFP) have been also part of the NZ funded projects in the national forest programme in the early 80s where <i>Cordia alliodora</i> (Cordia) as main introduced species to be planted. However with the priority species identified by the SPRIG project encouraged forestry to focus or promoting these species to the rural communities than Cordia. The five main priority species are <i>Endospermum medullosum</i> (Whitewood), <i>Canarium indicum</i> (Nangai), <i>Macrophylla switenia</i> (Mahogany), <i>Terminalia catappa</i> (Natapoa) and <i>Santalum austro-caledonicum</i> (Sandalwood).
Law (Act or Code) on forest with national scope	As stated in the forest policy that the Constitution of the Republic of Vanuatu must be the foundation of any Government policy. Therefore Forest policy formulation was guided by Article 7 (d) which states that every person has the fundamental duty to “..... <b>protect the Republic of Vanuatu and safeguard the natural wealth, resources and environment in the interests of the present and future generations.</b> ”
Sub-national forest policy statements	
Sub-national Laws (Acts or Codes) on forest	

**Other general comments to the table**

In regard to the National forest programme, the Department of Forests in Vanuatu implements its National Forest Policy under four different major sections such as:-

1. Conservation
2. Extension and Research
3. Planning (Mapping & Forest Inventory)
4. Utilization/Operation

All the main different sections listed above are the existing main sections implementing the national forest programme and each section in this case has its own priorities, strategies and activities to report on but has to be in line with what's been emphasized in the National Forest Policy.

## 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	Hon. Havo Molisale Minister of Agriculture, Livestock, Forestry, Fisheries & Quarantine Services
Level of subordination of Head of Forestry within the Ministry	1 <sup>st</sup> level of subordination to Minister
	2 <sup>nd</sup> level of subordination to Minister
	3 <sup>rd</sup> level of subordination to Minister
	4 <sup>th</sup> or lower level of subordination to Minister
Other public forest agencies at national level	National Government, Other Government Departments, Provincial Governments, Forestry Industry, Customary Chiefs, Landowners and Communities, NGOs
Institution(s) responsible for forest law enforcement	Forestry & its stakeholders stated above

**Table 15b – Human resources**

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total staff	34	8.8	21	19	19	26
...of which with university degree or equivalent	n.a.	n.a.	n.a.	n.a.	5	n.a.

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	<p>Staff with university degree or equivalent. (Females only) or all staff qualifications included in Table 16.2.2.</p> <ol style="list-style-type: none"> <li>1. Ms Toufau Kalsakau (Bachelor forestry Degree)</li> <li>2. Ms Phyllis Kamasteia (Forestry Diploma)</li> <li>3. Ms Leimon Kalomor (Forestry Diploma, currently undertaking Forestry Degree course)</li> <li>4. Mrs Anne-Marie Sarisets (Journalism degree)</li> <li>5. Mrs Judy Kalotap (partly completed Diploma forestry course)</li> </ol>	

Other general comments to the table



## 16 Table T16 – Education and research

### 16.1 FRA 2010 Categories and definitions

Term	Definition
Forest-related education	Post-secondary education programme with focus on forests and related subjects.
Doctor's degree (PhD)	University (or equivalent) education with a total duration of about 8 years.
Master's degree (MSc) or equivalent	University (or equivalent) education with a total duration of about five years.
Bachelor's degree (BSc) or equivalent	University (or equivalent) education with a duration of about three years.
Technician certificate or diploma	Qualification issued from a technical education institution consisting of 1 to 3 years post secondary education.
Publicly funded forest research centers	Research centers primarily implementing research programmes on forest matters. Funding is mainly public or channelled through public institutions.

### 16.2 National data

#### 16.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variab le(s)	Year(s)	Additional comments
Annual Reports	H		2000 - 2007	Public Service records
Ministerial Annual Reports	H		2000 - 2007	Forestry staff personal data

#### 16.2.2 Original data

Name of Staff	Qualification	Institution	Position
Mr Livo Mele	MSc, Business Administration	University of the South Pacific, Fiji	Director of Forests
Mr Watson John	Diploma in Forestry	PNG Forestry College, PNG	Deputy Director of Forests
Mr Ioan Viji	MSc. Biology	University of the South Pacific, Fiji	Principal Forest Officer, Technical
Mr Tate Hanington	Degree in Forestry, currently undertaking MSc course	Lae, Unitech, PNG	Principal Forest Officer, Policy
Mr Rexon Viranamanga	Bachelor of Applied Science, Forestry, currently undertaking MSc. GIS & Remote Sensing	Southern Cross University, Australia, Australian National University	Senior Forest Officer, Planner
Mr Sam Channel	Certificate on Forestry Conservation/Botany	France	Forest Botanist
Mr Presly Dovo	Degree in Sociology, Currently undertaking MSc. Course on Entomology	University of the South Pacific, Fiji	Senior Forest officer, Conservation
Mr Joseph Tungon	Diploma in Forestry	PNG Forestry College, PNG	Senior Forest Officer, Extension & Research
Mr Jude Tabi	Certificate in Forestry	Forestry Academy, Fiji	Regional Forest Officer for Shefa & Tafea Province
Mr Dick Tomker	Bachelor of Arts & Applied Science Forestry	Lae, Unitech, PNG	Regional Forest Officer for Sanma & Torba
Ms Toufau Kalsakau	Bachelor of Arts & Applied Science Forestry	Lae, Unitech, PNG	Regional Forest Officer for Penama & Malampa
Ms Phyllis Kamasteia	Diploma in Forestry	PNG Forestry College, PNG	Mapping Officer
Ms Leimon Kalomor	Diploma in Forestry, currently undertaking Bachelors of Applied	Southern Cross University, Australia	Conservation Officer

	Science, Forestry		
Ms Anne-Marie Sarisets	Degree in Journalism	University of the South Pacific, Fiji	Forest Officer, Shefa
Ms Judy Kalotap	Diploma in Forestry, partly completed	PNG Forestry College, PNG	Forest Officer, Shefa
Mr Simon Naupa	Diploma in Forestry	PNG Forestry College, PNG	Forest Officer, Tafea
Mr Tarer Karai	Diploma in Forestry	PNG Forestry College, PNG	Forest Officer, Sanma
Mr Michael Tabi	Certificate in Forestry	Solomon College of Higher Education, Solomon Islands	Forest Officer, Shefa
Mr Allan Vira	Certificate in Forestry	Forestry Academy, Fiji	Forest Officer, Penama
Mr Kasen Alick			Forest Officer, Torba
Mr Mesek Sethy			Seed specialist Officer, Sanma
Mr Daniel Laeyang	Certificate in Forestry	Forestry Academy, Fiji	Forest Officer, Malampa
Mr Samuel Lokre			Forest Officer, Tafea
Mr Philemon Ala			Assistant Herbarium Curator
Mr Russel Louvo			Check scaler, Tafea
Mr Job Havo			Check scaler, Malampa
Mr Taura Titus			Nursery Supervisor, Shefa
Mr Walter Thul			Nursery Supervisor, Sanma
Mr James Tari			Handyman, Sanma
Mr James Samuel	Secondary Education	Onesua Presbyterian College, Vanuatu	Acting Forestry Inventory Officer, Shefa
Mr Kalua Salerua	Secondary Education	Secondary School	Acting Forest Officer, Sanma
Mr Sammy David	Secondary Education	Secondary School	Acting Forest Officer, Sanma
Mr Bradley Tamata	Secondary Education	Secondary School	Acting Forest Officer, Sanma

### 16.3 Data for Table T16

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

## 16.4 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Graduation of students in forest-related education	Majority of the forestry officers had been graduated with a Forestry Diploma from the PNG Forestry College and four with Bachelor of Applied Science, Forestry at Lae University of Technology, PNG	Increase number of forestry degree holders have acquired their Masters in the regional institutions and two are currently undertaking their MSc courses in Australia
Professionals working in public forest research centres		

A table inserted below contains information on some of forestry professionals whom are engaged in forestry activities in the other organisations.

Other general comments to the table			
Name of Forester	Qualification	Occupation	Organisation
Mr Godfrey Daruhi	Bachelor of Applied Science, Forestry @ Lae Unitech, PNG	Principal Town Planner,	Luganville Municipal, Santo
Mr Nasak William	Bachelor of Applied Science, Forestry @ Lae Unitech, PNG (currently undertaking MSc course on Agribusiness at Queensland University, Australia).	Plantation Manager	Summit Research Estate, Equity Investment Group
Mr Feke Pedro	Forestry Diploma @ PNG Forestry College	Self Employed	
Mr Japheth Hidson	Forestry Certificate @ Solomon College of Higher Education, Solomon Islands	Nursery Supervisor	Summit Research Estate, Equity Investment Group
Mr Mandes Kilman	Forestry Certificate @ Solomon College of Higher Education, Solomon Islands	Principal Town Planner	Port Vila Municipal, Port Vila
Mr William Bani	Forestry Diploma @ PNG Forestry College, PNG (Currently undertaking a MSc course on Environmental management and Development )	GTZ Project Officer, Santo	GTZ/SPC
Mr Alick Berry	Forestry Diploma @ PNG Forestry College, PNG	Project Manager	Vanuatu Chamber of Commerce and Industry
Mr Amos Kalo	Forestry Diploma @ Waikato polytech, NZ	Project Officer	Live and Learn Project
Mrs Runte Likiafu	Forestry Diploma @ PNG Forestry College, PNG	Forestry Officer	Nukualofa, Tonga

## 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
Dept. Of Forests Business Plan 2003	H		2000 2002 2003	Summary of expenditures similar for 2000 & 2001
Dept. Of Forests Annual Report	H		2002 2005 2006 2007	Summary of expenditure and revenue
Acting Finance Officer, Dept. of Forests	H		2000,2005	Department annual financial reporting to Forestry Annual Reports

## 17.2.2 Original data

### A. 2000 Forestry Budget

Budget Code	Program	Activities	Budget (Million Vatu)	Percent (%)
A	Corporate Services	Forest Policy, Administration, Planning, Library, Legislation	15.3	29%
B	Forest Management Industry	Forest resource management, Logging planning and supervision, Economics and Marketing,. Mapping & Inventory, GTZ sustainable forestry project, Implement& training for Code of Logging Practice	14.8	28%
C	Forest Conservation	Afforestation, Conservation, Mangroves, Aneityum Erosion Control project, National Herbarium	2.1	4%
D	Forest Research	Tree growth monitoring, Research, Awareness, Nursery & seeds, Sandalwood	4.8	9%
E	Forest Extension	Reforestation & community forestry, information dissemination	11.1	21%
F	Reafforestation	Continued replanting of IFP plantation	4.8	9%
	<b>Total Forestry Expenditure</b>		<b>53</b>	<b>100%</b>

Reference from Department of Forests Business Plan for 2003 and Annual Report for 2001

### 17.3 2005 Forestry Budget

Budget Code	Program	Budget (VT)	Percent (%)
FA	Sustainability	22,209,297	46%
FB	Marketing & Trade Facilitation	2,720,812	6%
FC	Value adding & Processing	5,710,671	12%
FD	Forest Research	8,070,077	17%
FE	Policy & Planning	9,579,276	19%
	<b>Total Forestry Expenditure</b>	<b>48,290,133</b>	<b>100%</b>

### B. Summary for the last five years

Year	Revenue	%
2003	11,847,288	35
2004	13,413,633	39
2005	4,925,620	14
2006	1,805,808	5
2007	2,334,734	7
<b>Total</b>	<b>34,327,083</b>	<b>100</b>

Note: Finance system introduced in 2001 captures the above figures only from 2003 and onwards as confirmed from Mrs Ethel George (current Forestry Finance Officer).

## 17.4 Data for Table T17

**Table 17a - Forest revenues**

FRA 2010 Categories	Revenues (1000 Vatu)	
	2000	2005
Forest revenue	4600	4900

*Department of Forests Annual reports 2002,2005*

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

FRA 2010 Categories	Domestic funding (1000 Vatu)		External funding (1000 Vatu)		Total (1000 Vatu)	
	2000	2005	2000	2005	2000	2005
Operational expenditure	49,000	50,300	26,948	26,948	75,948	77,248
Transfer payments						
<b>Total public expenditure</b>					75,948	77,248
If transfer payments are made for forest management and conservation, indicate for what specific objective(s) - Please tick all that apply.	<input checked="" type="checkbox"/>		Reforestation			
	<input checked="" type="checkbox"/>		Afforestation			
	<input checked="" type="checkbox"/>		Forest inventory and/or planning			
	<input checked="" type="checkbox"/>		Conservation of forest biodiversity			
	<input checked="" type="checkbox"/>		Protection of soil and water			
	<input type="checkbox"/>		Forest stand improvement			
	<input checked="" type="checkbox"/>		Establishment or maintenance of protected areas			
	<input checked="" type="checkbox"/>		Forest Extension			
	<input checked="" type="checkbox"/>		Forest Research			
	<input checked="" type="checkbox"/>		Corporate Services			

*Reference from Department of Forest Financial summary report and Business Plan 2003*

### 17.5 Comments to Table T17

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue	Money collected by the of Dept. of Forests from Timber Licence Fees, Forest Management charges, Registration Fees, Publication fees, Administration fees, Sandalwood Licence Fees and other miscellaneous charges towards the Government annually.	Increase in revenue collection in 2005 compared to 2000.
Operational expenditure	Total money spent in an year from an annual budget.	Been reduced for the last three years due to paying off court fines & fees on forestry cases.
Transfer payments	Financial assistance donated to Forestry by external projects. E.g FAO, SPC, GTZ, EU, UN, etc	Been reduced after 2005.

#### Other general comments to the table

Please note that some of the projects for 2000-2005 have been ongoing. Even though it exceeds the duration of the project dateline as set in the project TOR, depends on the ground work so the project implementation period had been extended.