

# GLOBAL FOREST RESOURCES ASSESSMENT 2015

## COUNTRY REPORT

### **Fiji**

Rome, 2014

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Global Forest Resources Assessment (FRA). This country report is prepared as a contribution to the FAO publication, the Global Forest Resources Assessment 2015 (FRA 2015).

The content and the structure are in accordance with the recommendations and guidelines given by FAO in the document Guide for country reporting for FRA 2015 (<http://www.fao.org/3/a-au190e.pdf>). These reports were submitted to FAO as official government documents.

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### Introductory Text

Place an introductory text on the content of this report

The Fiji Islands Forestry department has been involved with the provision of forest related information via the FAO Global FRA since 2010, and has deemed it to be important thus indicating this as one of its main obligations. Over the years, the department with its knowledge from the FRA has implemented projects to enable it to bridge the gap in its data collection. It has boost its GIS and Remote Sensing capabilities to enable satellite image analysis and forest cover mapping within the department. In highlighting these, the government has been widely involved with supporting these such projects "Million Tree-campaign" for which one million trees to be planted over a span of a year with promotions to the public to be involved in planting trees and its importance in the society.

Since 2007, the Forestry Department has amended its Forest Policy to include Sustainable Forest Management and its other contributing aspects which is related to Socio-economic, Cultural and Environmental. With the increase on knowledge and aspects related to Carbon inventory and Climate Change, the department has also need to adapt. The formulation of the REDD+ Policy which was in late 2007 has paved the way for the establishment of pilots sites and getting a carbon inventory with results from the Permanent sample plots established in 2010.

### Desk Study?

Check "yes" if this survey is a Desk Study, "no" otherwise	
Desk Study?	no

## 1. What is the area of forest and other wooded land and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 1.1 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 ; 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".
...of which with tree cover ( <i>sub-category</i> )	Land considered as "Other land", that is predominantly agricultural or urban lands use and has patches of tree cover that span 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. It includes bothe forest and non-forest tree species.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.
Forest expansion	Expansion of forest on land that, until then, was not defined as forest.
...of which afforestation ( <i>sub-category</i> )	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not defined as forest.
...of which natural expansion of forest ( <i>sub-category</i> )	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).
Deforestation	The conversion of forest to other land use or the longterm reduction of the tree canopy cover below the minimum 10 percent threshold.
...of which human induced ( <i>sub-category</i> )	Human induced conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold.
Reforestation	Natural regeneration or re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.
...of which artificial reforestation ( <i>sub-category</i> )	Re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.

### 1.2 National data

#### 1.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry department Fiji. NFI Report 1993	Natural Forest Plantations Coconut Mangroves	1991	1991 National Forest Inventory Report

2	Forestry Department Annual Reports	Pine Plantation areas Mahogany Plantation areas	1990 -1992 1996-1998 2000	Appendix 1 of the Report Pines (Plantation lease in T2) Mahogany (Crown lease in T2)
3	Ministry of Agriculture. 1998. GTZ Pacific regional forestry project	Forest Statistics Areas Volumes Fires Imports Exports	1998	Forestry Facts and Figures Basic forest statistics
4	Fiji Pine Limited. Annual Report. Chief Executive Officers Report	Plantations	1999 2002	N/A
5	Forestry department Fiji. 2002. Unpublished NFI report.	Natural forest, plantation	2002	Forest Area Calculations stored in Excel spreadsheet (NFI Summary.xls)
6	Forestry department Fiji. NFI Report 1993	Natural Forest Plantations Coconut Mangroves	1993	2008 National Forest Inventory Report
7	Forestry department Fiji. NFI Report 2008	Natural Forest Plantations Coconut Mangroves	2009	2008 National Forest Inventory Report
8	FAOSTAT. 2009	Inland water bodies	N/A	N/A
9	Forestry Dept annual Report ,Fiji Pine Limited Area System	Fiji Pine Forested Areas	1990 -2007	N/A
10	Forestry Dept Annual Report	Fiji Hardwood Cooperation Forested Areas	1990 - 2007	N/A
11	Forestry Dept Annual Report	Fiji Pine Trust Forested Areas	1990-2007	N/A

### 1.2.2 Classification and definitions

National class	Definition
Closed Forest	Natural forest with crown cover by trees and / or ferns 40-100% and ground coverage by, palm and / or bamboo over 20%
Open Forest	Natural forest with crown cover by trees and / or ferns 10-40% and ground coverage by, palm and / or bamboo 50-80%
Forest Plantations	Man made forests with planted tree species
Mangrove forest	Forest occurring below the high tide water mark with high occurrence of mangrove species
Coconut plantations	Areas under coconut plantations
Non-Forest	All other land that does not qualify under any of the forest classifications
Inland Water bodies	Land areas covered under major rivers, lakes, and water dams
Afforestation	Establishment of forest through planting programme on land that, until then, was not classified as forest.
Reforestation	Re establishment of forests through planting programme and or deliberate seedling on land classified as forest.

Natural expansion of forests	Expansion of forest through natural succession on land that, until then, was under another land use (forest succession on land previously used for agriculture)
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## 1.2.3 Original data

<b>Forest area</b>									
<b>National class (1000 ha)</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2002</b>	<b>2007</b>	2010
Closed Forest		704.856						556.385	526.453
Open Forest		152.665						342.845	388.415
Pine plantations	43.63	49.62	51.56	51.38	51.38	52.88	48.59	93.524	72.663
Hardwood plantations	36.24	39.22	41.64	50.23	50.69	51.4	52.33	60.448	58.997
Coconut plantations		34.56						27.137	17.600
Non-forests								629.835	632.351
Inland water								19.208	14.793
<b>Total land area</b>		<b>946.361 *</b>						<b>1053*</b>	1047*

\*Excludes area of coconut plantations.

## Comments:

Fiji now has a new forest definition which was used during the latest NFI which was carried out from 2006-2008. Under the new forest definition, the former Dense and Medium Dense Forest classes are now combined to form the current forest class “Closed Forest”; the former class “Scattered Forest” is now called “Open Forest”. Therefore, the row “Closed Forest” above, is the total of the old classes “Dense and Medium Dense Forests” in years 1991 and 2007.

The classes “Non Forests” and “Inland Water Bodies” are now calculated for the first time and therefore did not appear in the 1991 data.

The forest area calculated using satellite data of 2000 and 2007. Two different satellite image used to provide full coverage of our forest area due to obstruction by cloud cover in that period.

Arc GIS 10.1 used and identify gaps and overlaps between polygons of different layers and also used to correct them accordingly. The reduction in the forest area as compared to the previous year was due to the cleaning and corrections done to our maps using ARC GIS 10.1.

### 1.3 Analysis and processing of national data

#### 1.3.1 Calibration

National Class (1000 ha)	1000 hectares
Closed Forest	526.453
Open Forest	388.415
Pine plantations	72.663
Hardwood plantations	58.997
Coconut plantations	17.600
Non Forests	632.351
Inland water	14.793
Total Land area	1,711

#### Calibration Factor

Total land area according to FAOSTAT	1827
Calibration factor	1.067626544

#### Forest expansion, reforestation

Calibrated national data

National class (1 000 ha)	1 000 hectares
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Closed Forest	562.055
Open Forest	414.682
Pine plantations	77.577
Hardwood plantations	62.987
Coconut plantations	18.790
Non-forests	675.115
Inland water	15.794
<b>Total land area</b>	<b>1,827</b>

\* *Calibrated data from above 1*

### 1.3.2 Estimation and forecasting

#### Estimation

National Class (1000 ha)	1991	2010	# Area	Num of yrs	#/year
Closed Forest	704.856	562.055	-142.801	19	-7.516
Open Forest	152.665	414.682	262.017	19	13.790
Pine plantations	49.620	77.577	27.957	19	1.471
Hardwood plantations	39.220	62.987	23.767	19	1.251
Coconut plantations	34.560	18.790	-15.770	19	-0.830
Non-forests	830.285	675.115	-155.170	19	-8.167
Inland water	15.794	15.794	0.000	19	0.000
<b>Total land area</b>	<b>1827</b>	<b>1827</b>			

#### Comments:

The data for 1991 and 2010 are now the two most reliable sets of forest area data from which a linear forest area interpolation and extrapolation on figures for 2010 and 2015 calculated.

The estimated non-forest area (830.285 ha) for 1991 calculated from the difference of total land area (1827 ha) and area of all national class (996.715 ha) for 1991. the in-land water area for 1991 derived from area calculated for 2010.

The increase in open forest area by 262,017 comes from the reduced closed forest of 142,801 ha and reduced coconut plantation by 15,770 ha leaving a balance of 103,446 ha. The balance of 103,446 ha is comes from

non forest area that is converted to open forest within the 19 year period. The remaining 51.72 ha of non forest areas converted to plantation forest.

### Forecasting

National Class (1000 ha)	1990	2000	2005	2010	2015
Closed Forest	702.747	639.007	602.424	562.055	524.476
Open Forest	225.639	301.524	344.854	414.682	483.634
Pine plantations	52.363	77.286	92.656	77.577	84.935
Hardwood plantations	39.797	53.080	60.780	62.987	69.241
Coconut plantations	34.297	31.248	29.408	18.790	14.640
Non - forests	830.285	685.679	685.679	675.115	634.281
Inland water	15.794	15.794	15.794	15.794	19.950
<b>Total Land Area</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>

### Data for Table T1

FRA 2015 categories	Area (1000ha)	1990	2000	2005	2010	2015
Forest		952.900	980.444	997.264	992.896	1,017.195
Other wooded land		45.128	60.306	68.973	82.936	96.727
Other land		828.972	786.250	760.763	751.167	713.078
... of which with tree cover		56.861	61.399	63.892	60.258	63.003
Inland water bodies		0	0	0	15.794	19.950
<b>Total</b>		<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>

National Class (1000 ha)	1990	1991	1992	1996	1997	1998	2002	2007	2011	2012	2013

Fiji Pine Limited plantations	0.662	0.921	1.246	1.499	1.698	2.053	4.109	1.250	0.462	2.412	1.360
Fiji Hardwood plantations	4.714	2.986	3.122	2.298	1.231	0.000	4.407	0.044	1.029	1.082	0.152
Fiji Pine Extension Plantations	0.441	0.215	0.339	0.491	0.372	0.000	0.000	0.050	0.013	0.025	0.036
Forestry Dept Extension Division	0.000	0.000	0.000	0.000	0.000	0.015	0.111	0.000	3.634	2.166	

\*Data extracted from Forestry Department Annual Report 1990-2007

\*Data extracted from above organizations Reports 2011 - 2013

### Original Data

National Class (1000 ha/year)	1990	2000	2005	2010
Fiji Pine Limited plantations	0.930	3.081	1.250	1.437
Fiji Hardwood plantations	3.607	2.204	0.044	1.056
Fiji Extension plantations	0.332	0.000	0.050	0.019
Forestry Dept Extension plantations	0.000	0.063	0.000	2.900

\* Data are in accordance to average of five years! (1988-1992: 1990), (1998-2002: 2000), (2003-2007: 2005), (2008 - 2012: 2010)

## 1.3 Analysis and processing of national data

### 1.3.1 Adjustment

Forest area	
National class (1000 ha)	1000 hectares
Closed Forest	526.453

Open Forest	388.415
Pine plantations	72.663
Hardwood plantations	58.997
Coconut plantations	17.600
Non-forests	632.351
Inland water	14.793
<b>Total land area</b>	<b>1711</b>

#### Calculating the calibration Factor

Total land area according to FAOSTAT	1 827
Calibration factor	1.067626544

#### Calibrated National data

<b>National class (1 000 ha)</b>	<b>1 000 hectares</b>
Closed Forest	562.055
Open Forest	414.682
Pine plantations	77.577
Hardwood plantations	62.987
Coconut plantations	18.790
Non-forests	675.115
Inland water	15.794
<b>Total land area</b>	<b>1,827</b>

#### Forest expansion, reforestation

There is no calibration for this table as data is average for the years.

### 1.3.2 Estimation and forecasting

<b>Forest area</b>					
Estimation					
<b>National class (1000 ha)</b>	<b>1991</b>	<b>2010</b>	<b># Area</b>	<b>Num of yrs</b>	<b>#/year</b>
Closed Forest	704.856	562.055	-142.801	19	-7.516
Open Forest	223.53	414.682	262.017	19	13.790
Pine plantations	49.62	77.577	27.957	19	1.471
Hardwood plantations	39.22	62.987	23.767	19	1.251
Coconut plantations	34.56	18.790	-15.770	19	-0.830
Non-forests	830.285	675.115	-155.170	19	-8.167
Inland water	15.794	15.794	15.794	19	0.831
<b>Total land area</b>		<b>1,827</b>			
Comments:					
The data for 1991 and 2010 are the two most reliable data for our forest area and is used to interpolate and extrapolate figures for 2010 and 2015 respectively.					
<b>Forecasting</b>					
<b>National Class (1000ha)</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>
Closed Forest	702.747	639.007	602.424	562.055	524.476
Open Forest	225.639	301.524	344.854	414.682	483.634
Pine plantations	52.363	77.286	92.656	77.577	84.935

Hardwood plantations	39.797	53.080	60.780	62.987	69.241
Coconut plantations	34.297	31.248	29.408	18.790	14.640
Non Forest	830.285	685.679	685.679	675.115	634.281
Inland water	21.484			15.794	19.950
<b>Total Land Area</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>1827</b>

### Forest expansion, reforestation

#### Afforestation

National Class (1000 ha/year)	1990	2000	2005	2010
Fiji Pine Limited plantations	0.930	3.081	1.250	1.437
Fiji Pine Extension Plantations	0.332	0.000	0.050	0.019
<b>Total Afforestations</b>	<b>1.262</b>	<b>3.081</b>	<b>1.300</b>	<b>1.456</b>

#### Reforestation

National Class (1000 ha/year)	1990	2000	2005	2010
Fiji Hardwood plantations	3.607	2.204	0.044	1.056
Forestry Dept Extension Plantations	0.000	0.063	0.000	2.900
<b>Total Reforestations</b>	<b>3.607</b>	<b>2.267</b>	<b>0.044</b>	<b>3.956</b>

### 1.3.3 Reclassification

Forest area					
National classes					
	Forest	OWL	Other Land	OLWTC	

Closed forest	100%				
Open forest	70%	20%		10%	
Pine plantation	100%				
Hardwood plantation	100%				
Coconut Plantation				100%	

**Comments:**

The Fiji NFI uses Landsat 7 satellite data for the classification of forest areas of everything with tree cover starting from 0.5 hectares and above from which forests are further categorised into the two forest density classes of Closed and Open forests.

The figures maintained by FAOSTAT have been used for reporting on Inland water bodies.

**1.4 Data**

Table 1a







Categories		Area (000 hectares)				
		1990	2000	2005	2010	2015
	Forest	952.9	980.44	997.26	992.896	1017.195
	Other wooded land	45.1	60.3	68.97	82.936	96.727
	Other land	829	786.26	760.77	751.167	713.078
	... of which with tree cover	56.9	61.4	63.893	60.258	63.003
	Inland water bodies	0	0	0	0	0
	TOTAL	1827.00	1827.00	1827.00	1827.00	1827.00

Table 1b

Categories		Annual forest establishment / loss (000 hectares per year)				...of which of introduced species (000 hectares per year)			
		1990	2000	2005	2010	1990	2000	2005	2010
	Forest expansion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CFRQ	... of which afforestation	1.262	3.081	1.3	1.456	1.262	3.081	1.3	1.456
CFRQ	... of which natural expansion of forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Deforestation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which human induced	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Reforestation	3.607	2.267	0.044	3.956	N/A	N/A	N/A	N/A
CFRQ	... of which artificial	3.607	2.267	0.044	3.956	3.607	2.267	0.044	3.956

## Tiers

Category	Tier for status	Tier for reported trend
Forest	Tier 2	Tier 2
Other wooded land	Tier 2	Tier 2
Forest expansion	Tier 2	Tier 2
Deforestation	Tier 2	Tier 2
Reforestation	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
<ul style="list-style-type: none"> <li>Forest</li> <li>Other wooded land</li> <li>Afforestation</li> <li>Reforestation</li> <li>Natural expansion of forest</li> <li>Deforestation</li> </ul>	<p><b>Tier 3</b> : Data sources: Either recent (less than 10 years ago) National Forest Inventory or remote sensing, with ground truthing, or programme for repeated compatible NFIs</p> <p><b>Tier 2</b> : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 years ago)</p> <p><b>Tier 1</b> : Other</p>	<p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status)</p> <p><b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status)</p> <p><b>Tier 1</b> : Other</p>

## 1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	An area of approximately 40 000 hectares of mangroves is not included in the total forest area. The reason for exclusion is that the area of mangroves is not included in the total land area.	The increase in open forest area by 262,017 ha comes from the following sources: The 142,801 ha comes from reduced closed forest and 15,770 ha from reduced coconut plantations leaving a balance of 103,446 ha. The above balance of 103,446 ha of open forest comes from the reduced non forest area leaving a balance of 51.72 ha. The remaining reduced non forest that was lost in the last 19 years converted to plantation forests.
Other wooded land	N/A	N/A



Other land	Calculated as total land area less area of Forest and area of Other wooded land.	N/A
Other land with tree cover	N/A	N/A
Inland water bodies	The total area of Fiji includes approximately 21 (1000 ha) of inland water bodies.	Since there was no data available for the years before 2008, the 2008 value was used for the rest of the years back to 1990.
Forest expansion	Data acquired from the Fiji Pine Limited for new planting or extend of pine areas. These are introduced species <i>Pinus caribaea</i> . There is no data that is relevant for this definition due to the change in classification over the years in the last National Forest Inventory from deriving forest in crown density to canopy cover there has been no work carried out to determine the natural expansion of forest.	The Afforestation in the trend showing is increasing due to various barren lands or grassland being afforested. No trends reported on no data available.
Deforestation	N/A	N/A
Reforestation	The reforestation of Hardwood plantation which is mainly of <i>Swietenia Macrophylla</i> (Mahogany) introduced species not native to Fiji.	Highlights decreasing trend since reforesting of Hardwood Plantation starts to decline after 1998.

**Other general comments to the table**

The mapping exercise has been finalised since 2010. This is being highlighted on this report.

## 2. What is the area of natural and planted forest and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 2.1 Categories and definitions

Term	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Naturalized introduced species	Other naturally regenerated forest where the tree species are predominantly non-native and do not need human help to reproduce/maintain populations over time.
Introduced species	A species, subspecies or lower taxon occurring <b>outside</b> 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).
Category	Definition
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.
...of which of introduced species ( <i>sub-category</i> )	Other naturally regenerated forest where the trees are predominantly of introduced species.
...of which naturalized ( <i>sub-sub category</i> )	Other naturally regenerated forest where the trees are predominantly of naturalized introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
...of which of introduced species ( <i>sub-category</i> )	Planted forest where the planted/seeded trees are predominantly of introduced species.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
...of which planted ( <i>sub-category</i> )	Mangroves predominantly composed of trees established through planting.

### 2.2 National data

#### 2.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Fiji NFI Report 2008	Forest Areas	N/A	The 2008 NFI report is yet to be published in mid 2009
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

## 2.2.2 Classification and definitions

National class	Definition
Coconut	Mainly agricultural land cultivated with coconut palms
Mangroves	All land that lies below the High Tide Water Mark also known as “Crown Foreshore” mainly comprised of mangrove species
N/A	N/A
N/A	N/A

## 2.2.3 Original data

Original data on mangroves			
National Class	Area (1000 hectares)		
	1991	2007	2010
Mangrove forest	42.000	38.742	54.185

Note to 2.2.2

Please refer to Question1 and 4 for the rest of the forest definitions.

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Calibrated data on forests from Question1

National class (1000 ha)		2000	2005	2010	2015
Closed Forest	702.747	639.0066	602.4236	562.055	524.476

Open Forest	225.639	301.524	344.854	414.682	483.634
Pine plantations	52.363	77.286	92.656	77.577	84.935
Hardwood plantations	39.797	53.08	60.78	62.987	69.241
<b>Total area</b>	<b>1021</b>	<b>1071</b>	<b>1101</b>	<b>1117</b>	<b>1162</b>

## 2.3 Analysis and processing of national data

### 2.3.1 Adjustment

<p>Forest areas from Question 1 are already calibrated</p> <p>No need for calibration of mangrove data.</p>
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### 2.3.2 Estimation and forecasting

<p>This needs to be done only for mangroves as Forests and OWL are done from T1</p> <p>Estimating the change in mangrove area</p> <table border="1"> <thead> <tr> <th>National class (1000 ha)</th> <th>1991</th> <th>2010</th> <th># Area</th> <th>Num of yrs</th> <th>#/year</th> </tr> </thead> <tbody> <tr> <td>Mangroves</td> <td>42.000</td> <td>54.185</td> <td>12.185</td> <td>19</td> <td>0.641316</td> </tr> </tbody> </table> <p>Forecasting area change in mangroves</p> <table border="1"> <thead> <tr> <th rowspan="2">National Cass</th> <th colspan="5">Area (1000 hectares)</th> </tr> <tr> <th>1990</th> <th>2000</th> <th>2005</th> <th>2010</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	National class (1000 ha)	1991	2010	# Area	Num of yrs	#/year	Mangroves	42.000	54.185	12.185	19	0.641316	National Cass	Area (1000 hectares)					1990	2000	2005	2010	2015						
National class (1000 ha)	1991	2010	# Area	Num of yrs	#/year																								
Mangroves	42.000	54.185	12.185	19	0.641316																								
National Cass	Area (1000 hectares)																												
	1990	2000	2005	2010	2015																								

<b>Mangroves</b>	41.808	39.892	38.934	54.19	57.39
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### 2.3.3 Reclassification

All mangroves under the National category are classified as mangroves under the FRA2010 category.

National Categories	FRA 2010 Categories		
	Primary Forest	Other Naturally Regenerated Forests	Planted Forest
Closed Forest	60%	40%	
Open Forest	20%	80%	
Pine plantations			100%
Hardwood plantations			100%





Other naturally regenerated forests are all native species

Only 70% of the total area of open forest are classified as forest from Question 1 the rest falls under OWL (20%) and OLWTC (10%)

Pine and Hardwood plantations are all introduced species

## 2.4 Data

Table 2a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Primary forest	489.513	445.362	448.402	420.169	411.412
	Other naturally regenerated forest	371.227	404.712	395.422	432.164	451.613
	... of which of introduced species	0	0	0	0	0
	... of which naturalized	N/A	N/A	N/A	N/A	N/A



	Planted forest	92.16	130.366	153.436	140.564	154.175
	... of which of introduced species	92.16	130.366	153.436	140.564	154.175
TOTAL		952.90	980.44	997.26	992.90	1017.20

Table 2b

Primary forest converted to (000 ha)								
1990-2000			2000-2010			2010-2015		
Other natural regeneration	Planted	Other land	Other natural regeneration	Planted	Other land	Other natural regeneration	Planted	Other land
33.485	10.66	0	25.13	0	0	8.757	0	0

Table 2c

Categories	Area (000 hectares)				
	1990	2000	2005	2010	2015
Mangroves (forest and OWL)	86.908	100.192	107.904	137.121	154.118
... of which planted	N/A	N/A	N/A	N/A	N/A

## Tiers

Category	Tier for status	Tier for reported trend
Primary forest	Tier 2	Tier 2
Other naturally regenerated forest	Tier 2	Tier 2
Planted forest	Tier 3	Tier 3
Mangroves	Tier 2	Tier 2

## Tier Criteria

Category	Tier for status	Tier for reported trend
Primary forest/Other naturally regenerated forest/Planted forest	<p><b>Tier 3</b> : Data sources: Recent (less than 10 years) National Forest Inventory or remote sensing with ground truthing or data provided by official agencies or programme for repeated compatible NFIs</p> <p><b>Tier 2</b> : Data sources: Full cover mapping/ remote sensing or old NFI (more than 10 years) <b>Tier 1</b> : Other</p>	<p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other</p>

## 2.5 Comments

<b>Category</b>	<b>Comments related to data definitions etc</b>	<b>Comments on reported trend</b>
Primary forest	N/A	N/A
Other naturally regenerating forest	N/A	N/A
Planted forest	The two main plantation hardwood (mahogany) and softwood (pine).	N/A
Mangroves	N/A	Mangroves are also included in the Other Wooded Land thus the increase in Table 4B. The increase is the inclusion of 20% of the Open Forest as derived in T1.

**Other general comments to the table**

N/A

### 3. What are the stocks and growth rates of the forests and how have they changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 3.1 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees with a minimum diameter of 10 cm at breast height (or above buttress if these are higher). Includes the stem from ground level up to a top diameter of 0 cm, excluding branches.
Net Annual Increment (NAI)	Average annual volume of gross increment over the given reference period less that of natural losses on all trees, measured to minimum diameters as defined for "Growing stock".
Above-ground biomass	All living biomass above the soil including stem stump branches bark seeds and foliage.
Below-ground biomass	All biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Dead wood	All non-living woody biomass not contained in the litter either standing lying on the ground or in the soil. Dead wood includes wood lying on the surface dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in above-ground biomass	Carbon in all living biomass above the soil including stem stump branches bark seeds and foliage.
Carbon in below-ground biomass	Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Carbon in dead wood	Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in litter	Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm ) lying dead in various states of decomposition above the mineral or organic soil.
Soil carbon	Organic carbon in mineral and organic soils (including peat) to a soil depth of 30 cm.

#### 3.2 National data

##### 3.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A



### 3.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

### 3.2.3 Original data

#### Note to 3.2 *National data*

The 2007 NFI data collection was lesser comprehensive than the 1991 NFI. Information on upper bole diameters and top end diameters including branch sizes were not collected. Thus there is insufficient data to calculate growing stock, Biomass, and Carbon stock.

## 3.3 Analysis and processing of national data

### 3.3.1 Adjustment

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### 3.3.2 Estimation and forecasting

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### 3.3.3 Reclassification

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## 3.4 Data

Table 3a

Category	Growing stock volume (million m <sup>3</sup> over bark)									
	Forest					Other wooded land				
	1990	2000	2005	2010	2015	1990	2000	2005	2010	2015




	Total growing stock	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which coniferous	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3b

Category/Species name			Growing stock in forest (million cubic meters)			
Rank	Scientific name	Common name	1990	2000	2005	2010
1 st	N/A	N/A	N/A	N/A	N/A	N/A
2 nd	N/A	N/A	N/A	N/A	N/A	N/A
3 rd	N/A	N/A	N/A	N/A	N/A	N/A
4 th	N/A	N/A	N/A	N/A	N/A	N/A
5 th	N/A	N/A	N/A	N/A	N/A	N/A
6 th	N/A	N/A	N/A	N/A	N/A	N/A
7 th	N/A	N/A	N/A	N/A	N/A	N/A
8 th	N/A	N/A	N/A	N/A	N/A	N/A
9 th	N/A	N/A	N/A	N/A	N/A	N/A
10 th	N/A	N/A	N/A	N/A	N/A	N/A
Remaining			N/A	N/A	N/A	N/A
TOTAL			.00	.00	.00	.00

**THE PRE-FILLED VALUES FOR GROWING STOCK REFER TO THE FOLLOWING THRESHOLD VALUES (SEE TABLE BELOW)**

Item	Value	Complementary information
Minimum diameter (cm) at breast height of trees included in growing stock (X)	N/A	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	N/A	N/A
Minimum diameter (cm) of branches included in growing stock (W)	N/A	N/A

Volume refers to above ground (AG) or above stump (AS)	N/A	N/A
--	-----	-----

**PLEASE NOTE THAT THE DEFINITION OF GROWING STOCK HAS CHANGED AND SHOULD BE REPORTED AS GROWING STOCK DBH 10 CM INCLUDING THE STEM FROM GROUND LEVEL UP TO A DIAMETER OF 0 CM, EXCLUDING BRANCHES.**

Table 3c




Category		Net annual increment (m <sup>3</sup> per hectare and year)				
		Forest				
		1990	2000	2005	2010	2015
	Net annual increment	N/A	N/A	N/A	N/A	N/A
	... of which coniferous	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	N/A	N/A	N/A	N/A	N/A

Table 3d











Category		Biomass (million metric tonnes oven-dry weight)										
		Forest					Other wooded land					
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015	
	Above ground biomass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Below ground biomass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

Table 3e

Category		Carbon (Million metric tonnes)										
		Forest					Other wooded land					
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015	
	Carbon in above ground biomass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	Carbon in below ground biomass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Living biomass</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Carbon in dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Carbon in litter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Dead wood and litter</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Soil carbon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

## Tiers

Variable/category	Tier for status	Tier for trend
Total growing stock	N/A	N/A
Net annual increment	N/A	N/A
Above ground biomass	N/A	N/A
Below ground biomass	N/A	N/A
Dead wood	N/A	N/A
Carbon in above-ground biomass	N/A	N/A
Carbon in below ground biomass	N/A	N/A
Carbon in dead wood and litter	N/A	N/A
Soil carbon	N/A	N/A

## Tier criteria

Category	Tier for status	Tier for reported trend
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Total growing stock	Tier 3: Data sources Recent 10 years National Forest Inventory or remote sensing with ground truthing or programme for repeated compatible NFI 10 years Domestic volume functions Tier 2: Data sources/registers and statistics modelling or old NFI 10 years or partial field inventory Tier 1: Other data sources	Tier 3: Estimate based on repeated compatible tiers 3 (tier for status) Domestic growth functions Tier 2: Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 tier for status Tier 1: Other
Net annual increment	Tier 3: Scientifically tested national volume and growth functions Tier 2: Selection of volume and growth functions as relevant as possible Tier 1: Other	Tier 3: Confirmation/adjustment of functions used through scientific work Tier 2: Review work done to seek alternative functions Tier: 1 Other
Biomass	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied or other domestic or otherwise nationally relevant biomass studies Tier 2: Application of country specific national or sub-national biomass conversion factors from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>• Carbon in above ground biomass</li> <li>• Carbon in below ground biomass</li> <li>• Carbon in dead wood and litter</li> <li>• Soil carbon</li> </ul>	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied Tier 2: Application of country specific national or sub-national biomass conversion factors form from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

### 3.5 Comments on growing stock biomass and carbon

Category	Comments related to data definitions etc	Comments on the reported trend
Total growing stock	N/A	N/A
Growing stock of broadleaved coniferous	N/A	N/A
Growing stock composition	N/A	N/A
Net annual increment	N/A	N/A
Above-ground biomass	N/A	N/A
Below-ground biomass	N/A	N/A
Dead wood	N/A	N/A
Carbon in above-ground biomass	N/A	N/A
Carbon in below-ground biomass	N/A	N/A

Carbon in dead wood	N/A	N/A
Carbon in litter	N/A	N/A
Soil carbon	N/A	N/A

<b>Other general comments to the table</b>
--

N/A
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## 4. What is the status of forest production and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 4.1 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.
Non wood forest product (NWFP)	Goods derived from forests that are tangible and physical objects of biological origin other than wood.
Commercial value of NWFP	For the purpose of this table, value is defined as the commercial market value at the forest gate.
Category	Definition
Production forest	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Multiple use forest	Forest area designated for more than one purpose and where none of these alone is considered as the predominant designated function.
Total wood removals	The total of industrial round wood removals and woodfuel removals.
...of which woodfuel	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

### 4.2 National data

#### 4.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Department Fiji 1991 National Forest Inventory	Forest Areas	1991	Total forest area for the different forest functions.
2	Forestry Department Fiji. 2002.	Forest plantation	2002	Forest area calculations stored in Excel Spreadsheet (NFI Summary.xls).
3	FIJI'S RAINFORESTS Our Heritage our future: Proceedings Vol.2 by Drysdale, P.J.	Forest Areas	1988	A general description of the nature and extent of Fiji's forests and plantation forests.
4	National Biodiversity Strategy and Action Plan (NBSAP)	Forest Conservation areas	2007	The document is compiled under the CBD action strategy for Fiji. Contains forest areas earmarked for conservation activities in Fiji.

## 4.2.2 Classification and definitions

National class	Definition
Plantation forest	Man made forests, established for the production of industrial wood; includes all mahogany and pine plantations.
Multiple Use Natural Forest	Areas of forests that does not fall under any of the three above, and carrying indigenous forest vegetation to be maintained under forest cover and to be managed for the purpose of timber production, catchment protection, wildlife habitat, forest recreation and amenity uses and for minor forest products..
N/A	N/A
N/A	N/A

## 4.2.3 Original data

### (Area units:1000hectares)

Data is the result of a calculation that is based from the forest areas calculated in Question1. The data for the FRA category “ **Production** is obtained”: The data source is the calibrated areas from Question1 for the four years which includes all plantation areas for pines and mahogany.

## 4.3 Analysis and processing of national data

### 4.3.1 Adjustment

The total area under “production forest” is the total areas of pine and mahogany plantations for the four years.

Area under Multiple Use is calculated for the years 1990 to 2005 but comes straight from the NFI dataset for the year 2007 projected to 2010.

There is no need to calibrate the area of plantations. The total of Protection natural forest areas, Preserved natural forest areas and multiple use forest is calibrated with the Question1 forest area less area of plantations.

Calibrated national data:

Since the areas for Production, Protection, and Preserved Forests, are known, only the area of the multiple use is calibrated to match up the national forest area from Question 1 which includes area of Forest and Other Wooded Land.



National Classes	Forest(1000 hectares)				
	1990	2000	2005	2010	2015
Production Forests	85.716	116.957	132.578	140.564	154.175
Protection Forests	304.200	304.200	304.200	57.817	57.817
Preserved Forests	68.800	68.800	88.800	385.361	385.361
Multiple Use Forests	465.701	501.233	498.999	858.997	858.997
<b>Total</b>	<b>924</b>	<b>991</b>	<b>1025</b>	<b>1443</b>	<b>1456</b>

The projection on Protection, Preserved and Multiple Use forest for 2010 and 2015 deduced from 2010 dataset Production Forest figures is from calibrated estimate from T1

#### 4.3.2 Estimation and forecasting

The projections for 2015 are straight from the 2010 figures for the: Protection; Preserved; and Multiple Use. Except for the Production Forest which is from the calibrated estimate from Question 1.

FRA Categories	Forest(1000 hectares)				
	1990	2000	2005	2010	2015
Plantation Forests	85.716	116.957	132.578	140.564	154.175
Protection Forests	304.200	304.200	304.200	57.817	57.817
Preserved Forests	68.800	68.800	88.800	385.361*	385.361*
Multiple Use Forests	465.701	501.233	498.999	858.997	858.997
<b>Total</b>	<b>924</b>	<b>991</b>	<b>1,025</b>	<b>1443</b>	<b>1456</b>

\* Increase in Preserved forest area is due to the inclusion of Important Birds Area (IBA) which accounts for an estimated area of 314.73 ha.

## 4.3.3 Reclassification

National class	Primary function				
	Prod.	Prot. soil & water	Cons. biodiv.	Soc. Ser.	Mult. Purp.
Plantation Area	100%				
Multiple Use Natural Forest					100%
Protection Natural Forest		100%			
Preserved Natural Forest			100%		

## 4.4 Data

Table 4a



Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	86	117	133	141	154
	Multiple use forest	465.701	501.233	498.999	858.997	858.997

Table 4b

Rank	Name of product	Key species	Commercial value of NWFP removals 2010 (value 1000 local currency)	NWFP category
1 st	N/A	N/A	N/A	N/A
2 nd	N/A	N/A	N/A	N/A
3 rd	N/A	N/A	N/A	N/A
4 th	N/A	N/A	N/A	N/A
5 th	N/A	N/A	N/A	N/A
6 th	N/A	N/A	N/A	N/A
7 th	N/A	N/A	N/A	N/A

8 th	N/A	N/A	N/A	N/A
9 th	N/A	N/A	N/A	N/A
10 th	N/A	N/A	N/A	N/A
TOTAL			.00	

2010	
Name of local currency	FJ\$

Category
<b>Plant products / raw material</b>
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
<b>Animal products / raw material</b>
9 Living animals
10 Hides skins and trophies
11 Wild honey and beeswax
12 Wild meat
13 Raw material for medicine
14 Raw material for colorants
15 Other edible animal products
16 Other non-edible animal products

Table 4c Pre-filled data from FAOSTAT

Year	FRA 2015 category (1000 m <sup>3</sup> u.b.)	
	Total wood removals	...of which woodfuel
1990	N/A	N/A
1991	N/A	N/A
1992	N/A	N/A
1993	N/A	N/A
1994	N/A	N/A
1995	N/A	N/A
1996	N/A	N/A
1997	N/A	N/A
1998	N/A	N/A
1999	N/A	N/A
2000	N/A	N/A
2001	N/A	N/A
2002	N/A	N/A
2003	N/A	N/A
2004	N/A	N/A
2005	N/A	N/A
2006	N/A	N/A
2007	N/A	N/A
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	N/A	N/A

## Tiers

Category	Tier for status	Tier for reported trend
Production forest	Tier 3	Tier 3

Multiple use forest	Tier 2	Tier 2
---------------------	--------	--------

#### Tier Criteria

Category	Tier for status	Tier for reported trend
Production forest Multiple use forest	Tier 3: Updated including field verifications national forest maps including functions Tier 2: Forest maps older than 6 years including forest functions Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

#### 4.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Production forest	N/A	The increase in the plantation areas is due to the expansion in the planting programme in mahogany and pine during the period 1990 to 2005.
Multiple use forest	N/A	The increase is due to the re-classification of forest area in 2007 in which only slope classes was used to classify Protection Forest Areas whereas in 1991 NFI slope was used with other factors such as rainfall and soil erodibility which increases the area.
Total wood removals	N/A	N/A
Commercial value of NWFP	N/A	N/A

#### Other general comments to the table

Certain Forest Reserve areas were de-reserved in the last 3 years this does not change its status of protection on a National Scale. It is only reverted from State to Native for which lease will be paid to the landowners.

## 5. How much forest area is managed for protection of soil and water and ecosystem services?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 5.1 Categories and definitions

Category	Definition
Protection of soil and water	Forest area designated or managed for protection of soil and water
...of which production of clean water ( <i>sub-category</i> )	Forest area primarily designated or managed for water production, where most human uses are excluded or heavily modified to protect water quality.
...of which coastal stabilization ( <i>sub-category</i> )	Forest area primarily designated or managed for coastal stabilization.
...of which desertification control ( <i>sub-category</i> )	Forest area primarily designated or managed for desertification control.
...of which avalanche control ( <i>sub-category</i> )	Forest area primarily designated or managed to prevent the development or impact of avalanches on human life assets or infrastructure.
...of which erosion, flood protection or reducing flood risk ( <i>sub-category</i> )	Forest area primarily designated or managed for protecting communities or assets from the impacts of erosion riparian floods and landslides or for providing flood plain services.
...of which other ( <i>sub-category</i> )	Forest area primarily designated or managed for other protective functions.
Ecosystem services, cultural or spiritual values	Forest area primarily designated or managed for selected ecosystem services or cultural or spiritual values.
...of which public recreation ( <i>sub-category</i> )	Forest area designated or managed for public recreation.
...of which carbon storage or sequestration ( <i>sub-category</i> )	Forest area designated or managed for carbon storage or sequestration.
...of which spiritual or cultural services ( <i>sub-category</i> )	Forest area designated or managed for spiritual or cultural services.
...of which other ( <i>sub-category</i> )	Forest area designated or managed for other ecosystem services.

### 5.2 National data

#### 5.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A

3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 5.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

### 5.2.3 Original data

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## 5.3 Analysis and processing of national data

### 5.3.1 Adjustment

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### 5.3.2 Estimation and forecasting




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### 5.3.3 Reclassification

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## 5.4 Data

Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
	Protection of soil and water	N/A	N/A	N/A	N/A	N/A
	... of which production of clean water	N/A	N/A	N/A	N/A	N/A
	... of which coastal stabilization	N/A	N/A	N/A	N/A	N/A

	... of which desertification control	N/A	N/A	N/A	N/A	N/A
	... of which avalanche control	N/A	N/A	N/A	N/A	N/A
	... of which erosion, flood protection or reducing flood risk	N/A	N/A	N/A	N/A	N/A
	... of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

**Other**

N/A

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values	N/A	N/A	N/A	N/A	N/A
...of which public recreation	N/A	N/A	N/A	N/A	N/A
...of which carbon storage or sequestration	N/A	N/A	N/A	N/A	N/A
...of which spiritual or cultural services	N/A	N/A	N/A	N/A	N/A
...of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

## Tiers

Category	Tier for reported trend	Tier for status
Protection of soil and water	N/A	N/A
Ecosystem services, cultural or spiritual values	N/A	N/A

## Tier criteria

Category	Tier for status	Tier for reported trend
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Protection of soil and water	Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations or legislation relating to soil and water protection. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>• Cultural or spiritual values</li> <li>• Public recreation</li> <li>• Spiritual or cultural services</li> <li>• Other</li> </ul>	Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 5.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Protection of soil and water	N/A	N/A
Production of clean water	N/A	N/A
Coastal stabilization	N/A	N/A
Desertification control	N/A	N/A
Avalanche control	N/A	N/A
Erosion, flood protection or reducing flood risk	N/A	N/A
Other protective functions	N/A	N/A
Ecosystem services, cultural or spiritual values	N/A	N/A
Public recreation	N/A	N/A
Carbon storage or sequestration	N/A	N/A
Spiritual or cultural services	N/A	N/A
Other ecosystem services	N/A	N/A

**Other general comments to the table**

N/A
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## 6. How much forest area is protected and designated for the conservation of biodiversity and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 6.1 Categories and definitions

Category	Definition
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.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.

### 6.2 National data

#### 6.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Department Fiji 1991 National Forest Inventory	Forest Areas	1991	N/A
2	Forestry Department Fiji. 2002.	Forest plantation	2002	N/A
3	FIJI'S RAINFORESTS Our Heritage our future: Proceedings Vol.2 by Drysdale, P.J.	Forest Areas	1988	N/A
4	National Biodiversity Strategy and Action Plan (NBSAP)	Forest Conservation areas	2007	N/A

#### 6.2.2 Classification and definitions

National class	Definition
Preserved Forest	Areas of natural forest to be maintained in an undisturbed natural condition for the preservation of biological values. It includes all biodiversity forest conservation areas, forest parks and forest reserves.
N/A	N/A
N/A	N/A
N/A	N/A

### 6.2.3 Original data

**(Area units:1000hectares)**

Data is the result of a calculation that is based from the forest areas calculated in Question1. The data for the FRA category **Conservation of biodiversity** ” is obtained”. The area under conservation of biodiversity is also the same area as that of 1990.

## 6.3 Analysis and processing of national data

### 6.3.1 Adjustment

See 4.3.1.

### 6.3.2 Estimation and forecasting



See 4.3.2.

### 6.3.3 Reclassification

See 4.3.3.

## 6.4 Data

Table 6

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Conservation of biodiversity	69	69	89	385	385
	Forest area within protected areas	304	304	304	56	56

### Tiers

Category	Tier for status	Tier for reported trend
Conservation of biodiversity	Tier 3	Tier 3
Forest area within protected areas	Tier 3	Tier 3

## Tier criteria

Category	Tier for status	Tier for reported trend
<ul style="list-style-type: none"> <li>• Conservation of biodiversity</li> <li>• Forests within protected areas</li> </ul>	Tier 3: Data obtained from national or state agencies responsible for conservation and protected area or legislation relating to area protection. Tier 2: Studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates Tier 1 Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

## 6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Conservation of biodiversity	N/A	In 2005 another 20,000 ha was added to the area of conservation forest, but in 2010 the total area of protected area in Fiji will dramatically increase due to current boost in conservation activities in the country.
Forest area within protected areas	N/A	N/A

## Other general comments to the table

Certain Forest Reserve areas were de-reserved in the last 3 years this does not change its status of protection on a National Scale. It is only reverted from State to Native for which lease will be paid to the landowners.

## 7. What is the area of forest affected by woody invasive species?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 7.1 Categories and definitions

Category	Definition
Invasive species	Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health.

### 7.2 National data

#### 7.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 7.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

#### 7.2.3 Original data

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### 7.3 Analysis and processing of national data

#### 7.3.1 Adjustment

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Invasive species	Tier 3: Systematic assessment in forest inventory or other survey (e.g. by conservation department) within the last 5 years) Tier 2: Systematic assessment in forest inventory or other survey (e.g. by conservation department conducted more than 5 years ago) Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
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**7.5 Comments**

Category	Comments related to data definitions etc	Comments on the reported trend
Invasive species	N/A	N/A

Other general comments to the table
N/A



## 8. How much forest area is damaged each year?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 8.1 Categories and definitions

Category	Definition
Number of fires	Number of fires per year
Burned area	Area burned per year
Outbreaks of insects	A detectable reduction in forest health caused by a sudden increase in numbers of harmful insects.
Outbreaks of diseases	A detectable reduction in forest health caused by a sudden increase in numbers of harmful pathogens, such as bacteria, fungi, phytoplasma or virus.
Severe weather events	Damage caused severe weather events, such as snow, storm, drought, etc.

### 8.2 National data

#### 8.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 8.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

#### 8.2.3 Original data

--

## 8.3 Analysis and processing of national data

### 8.3.1 Adjustment

### 8.3.2 Estimation and forecasting

### 8.3.3 Reclassification

## 8.4 Data

Table 8a

Category		000 ha, number of fires									
		2003		2004		2005		2006		2007	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which forest area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which forest area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

### Outbreak category

1 Insects

2 Diseases

3 Severe weather events

### Tiers

Category	Tier for status	Tier for trend
Area affected by fire	N/A	N/A
<ul style="list-style-type: none"> <li>• Insects</li> <li>• Diseases</li> <li>• Severe weather events</li> </ul>	N/A	N/A

### Tier criteria

Category	Tier for status	Tier for reported trend
Burned area	<b>Tier 3</b> : National fire monitoring routines <b>Tier 2</b> : Remote sensing surveys <b>Tier 1</b> : Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
<ul style="list-style-type: none"> <li>• Insects</li> <li>• Diseases</li> <li>• Severe weather events</li> </ul>	<b>Tier 3</b> : Systematic survey (e.g. via inventory or aerial damage assessment) <b>Tier 2</b> : Management records <b>Tier 1</b> : Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

### 8.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
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Burned area	N/A	N/A
Insects	N/A	N/A
Diseases	N/A	N/A
Severe weather events	N/A	N/A

**Other general comments to the table**

N/A

## 9. What is the forest area with reduced canopy cover?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

Category	Definition
Reduction in canopy cover	Forest that has undergone a reduction of canopy cover of more than 20% between the years 2000 and 2010 within the forest canopy cover range of 30-80% as detected by the MODIS VCF sensor.

Table 9

Category	Area of forest with reduced canopy cover (000 ha)
Reduction in canopy cover	N/A

Tiers

Category	Tier for reported trend
Reduction in canopy cover	N/A

Tier criteria

Category	Tier for reported trend
Reduction in canopy cover	<b>Tier 3</b> : Remote sensing with ground truthing and/or Landsat imagery <b>Tier 2</b> : Remote sensing using Modis (using pre-filled data provided by FAO) <b>Tier 1</b> : Expert opinion

Comments

Category	Comments related to data definitions etc
Reduction in canopy cover	N/A

Other general comments

--

## 10. What forest policy and regulatory framework exists to support implementation of sustainable forest management SFM?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 10.1 Categories and definitions

Category	Definition
Policies supporting sustainable forest management	Policies or strategies that explicitly encourage sustainable forest management.
Legislation and regulations supporting sustainable forest management	Legislation and regulations that govern and guide sustainable forest management, operations and use.

### 10.2 National data

#### 10.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 10.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

#### 10.2.3 Original data

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### 10.3 Data

Table 10

Category				
	National	Sub-national		
		Regional	Provincial/State	Local
Policies supporting sustainable forest management				
... of which, in <u>publicly</u> owned forests				
... of which, in <u>privately</u> owned forests				
Legislation and regulations supporting sustainable forest management				
... of which, in <u>publicly</u> owned forests				
... of which, in <u>privately</u> owned forests				

#### 10.4 Comments

Variable / category	Comments related to data definitions etc
Policies supporting sustainable forest management	N/A
Legislation and regulations supporting sustainable forest management	N/A

Other general comments

--

## 11. Is there a national platform that promotes stakeholder participation in forest policy development?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 11.1 Categories and definitions

Category	Definition
National stakeholder platform	A recognized procedure that a broad range of stakeholders can use to provide opinions, suggestions, analysis, recommendations and other input into the development of national forest policy.

### 11.2 National data

#### 11.2.1 Data sources

	References to sources of information	Years	Additional comments
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A

Table 11

<b>Is there a national platform that promotes or allows for stakeholder participation in forest policy development?</b>	
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### 11.3 Comments

Category	Comments related to data definitions etc
National stakeholder platform	N/A

Other general comments

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## 12. What is the forest area intended to be in permanent forest land use and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 12.1 Categories and definitions

Category	Definition
Forest area intended to be in permanent forest land use	Forest area that is designated or expected to be retained as forest and is highly unlikely to be converted to other land use.
...of which permanent forest estate ( <i>sub-category</i> )	Forest area that is designated by law or regulation to be retained as forest and may not be converted to other land use.

### 12.2 National data

#### 12.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Department Fiji 1991 National Forest Inventory	Forest Areas	1991	N/A
2	Forestry Department Fiji. 2002.	Forest plantation	2002	N/A
3	FIJI'S RAINFORESTS Our Heritage our future: Proceedings Vol.2 by Drysdale, P.J.	Forest Areas	1988	N/A
4	National Biodiversity Strategy and Action Plan (NBSAP)	Forest Conservation areas	2007	N/A

#### 12.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

## 12.2.3 Original data

## 12.3 Analysis and processing of national data



## 12.3.1 Adjustment

## 12.3.2 Estimation and forecasting

## 12.3.3 Reclassification

## 12.4 Data

Table 12

Categories		Forest area 2010 (000 ha)
	Forest area intended to be in permanent forest land use	N/A
	... of which permanent forest estate	0

## Tiers

Category	Tier for status
Forest area intended to be in permanent forest land use	N/A
Permanent forest estate	N/A

## Tier Criteria

Category	Tier for status
Forest area intended to be in permanent forest land use	<b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years <b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years <b>Tier 1</b> : Other
Permanent forest estate	<b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years <b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years <b>Tier 1</b> : Other

## 12.5 Comments

Category	Comments related to data definitions etc
----------	--

Forest area intended to be in permanent forest land use	N/A
Permanent forest estate	Fiji does not have a Permanent Forest Estate

Other general comments

--

### 13. How does your country measure and report progress towards SFM at the national level?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 13.1 Categories and definitions

Category	Definition
Forest area monitored under a national forest monitoring framework	Forest area monitored by a national monitoring framework or systems that provide measurement based periodic monitoring of forest extent and quality.
Forest reporting at national scale	National reporting of forest extent and characteristics that includes some measure of progress toward sustainable forest management.

#### 13.2 National data

##### 13.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

##### 13.2.2 Classification and definitions

National class	Definition
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

#### 13.3 Data

Table 13a

Category	% of total forest area	Most recent year	Check all boxes that apply					
			Continuous	Periodic	Permanent ground plots	Temporary ground plots	Aerial/remote sensing sample based	Aerial/remote sensing full coverage
Forest inventory	N/A	N/A						
Other field assessments	N/A	N/A						
Updates to other sources	N/A	N/A						
Expert estimate	N/A	N/A						

Table 13b

Type of forest reporting used at national scale	Check boxes that apply
1 Criteria and Indicators reporting	
2 Periodic national state of the forest report	
3 Other (please document)	
4 None	

Other type of forest reporting
N/A

## 13.4 Comments

Category	Comments
N/A	N/A
N/A	N/A
N/A	N/A

Other general comments

--

## 14. What is the area of forest under a forest management plan and how is this monitored?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 14.1 Categories and definitions

Category	Definition
Forest area with management plan	Forest area that has a long-term documented management plan, aiming at defined management goals which is periodically revised
...of which for production ( <i>sub-category</i> )	Forest management plan mainly focused on production
...of which for conservation ( <i>sub-category</i> )	Forest management plan mainly focused on conservation
Monitoring of forest management plans	Government monitoring of forest management plan implementation conducted through field visits or audits of forest management plan performance

### 14.2 National data

#### 14.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Department Fiji 1991 National Forest Inventory	Forest Areas	1991	N/A
2	Forestry Department Fiji. 2002.	Forest plantation	2002	N/A
3	FIJI'S RAINFORESTS Our Heritage our future: Proceedings Vol.2 by Drysdale, P.J.	Forest Areas	1988	N/A
4	National Biodiversity Strategy and Action Plan (NBSAP)	Forest Conservation areas	2007	N/A

### 14.3 Data

Table 14a

Forest plan type	Forest area 2010 (000 ha)
Forest area with management plan	6.3
... of which for production	N/A
... of which for conservation	N/A

Table 14b

Indicate which (if any) of the following are required in forest management plans in your country	
1 Soil and water management	yes
2 High conservation value forest delineation	yes
3 Social considerations community involvement	yes

Table 14c

Percent of area under forest management plan that is monitored annually	N/A
---	-----

## Tiers

Category	Tier for status
Forest area with management plan	Tier 1
Percent of area under forest management plan that is monitored annually	N/A

## Tier criteria

Category	Tier for status
Forest area with management plan	<b>Tier 3</b> : Reports that describe national records 5 years old or less that contain long-term forest monitoring plans <b>Tier 2</b> : Industry or other records indicating the presence of a long-term forest management plan <b>Tier 1</b> : Other
Percent of area under forest management plan that is monitored annually	<b>Tier 3</b> : Government documentation of monitoring extent <b>Tier 2</b> : Reports from forest managers or other documental sources <b>Tier 1</b> : Other

## 14.4 Comments

Category	Comments
Forest area with management plan	The same area of 6,300 hectares above also has a forest management plan since 2005. This is a SFM project model site.
N/A	N/A
N/A	N/A

## Other general comments

--

## 15. How are stakeholders involved in the management decision making for publicly owned forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 15.1 Categories and definitions

Category	Definition
Stakeholder involvement	Stakeholder involvement is defined as significant inputs into at least one aspect of forest management at the operational scale

Table 15

Please indicate the type of stakeholder involvement in forest management decision making required in your country	
1. Planning phase	
2. Operations phase	
3. Review of operations	

Tiers

Category	Tier for status
Type of stakeholder inputs	N/A

Tier criteria

Category	Tier for status
Type of stakeholder inputs	<b>Tier 3</b> : Government (national or sub-national) documentation of stakeholder inputs <b>Tier 2</b> : Government (national or subnational) requirement but stakeholder inputs not documented <b>Tier 1</b> : Other

### 15.2 Comments

Category	Comments
N/A	N/A
N/A	N/A
N/A	N/A

Other general comments

--



## 16. What is the area of forest under an independently verified forest certification scheme?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 16.1 Categories and definitions

Category	Definition
FSC certification	Forest area certified under the Forest Stewardship Council certification scheme
PEFC certification	Forest area certified under the Programme for the Endorsement of Forest Certification scheme
Other international forest management certification	Forest area certified under an international forest management certification scheme with published standards and is independently verified by a third-party, excluding FSC and PEFC certification.
Certified forest area using a domestic forest management certification scheme	Area certified under a forest management certification scheme with published standards that are nationally recognized and independently verified by a thirdparty

### 16.2 Data

Table 16a













International forest management certification		Forest area (000 ha)						
		2000	2001	2002	2003	2004	2005	2006
	FSC	0	0	0	0	0	0	0
	PEFC	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
		2007	2008	2009	2010	2011	2012	
	FSC	0	0	0	0	0	0	
	PEFC	0	0	0	0	0	0	
	Other	0	0	0	0	0	0	

Table 16b

Domestic forest management certification		Forest area (000 ha)						
		2000	2001	2002	2003	2004	2005	2006
	N/A	0	0	0	0	0	0	0
	N/A	0	0	0	0	0	0	0
	N/A	0	0	0	0	0	0	0

		2007	2008	2009	2010	2011	2012	
		0	0	0	0	0	0	
		0	0	0	0	0	0	
		0	0	0	0	0	0	

## Tier criteria

Category	Tier for status
<b>International</b> forest management certification	Tier 3: International forest management scheme records maintained by the certifying organization for the reporting year Tier 2: International forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year Tier: 1 Other
<b>Domestic</b> forest management certification	Tier 3: National registry reports for domestic forest management certification maintained by the certifying organization for the reporting year Tier 2: Domestic forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year Tier: 1 Other

## Tiers

Category	Tier for status
<b>International</b> forest management certification	N/A
<b>Domestic</b> forest management certification	N/A

## 16.3 Comments

Category	Comments related to data definitions etc
Certified forest area using an international forest management certification scheme	N/A
Domestic forest management certification	N/A

## Other general comments

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## 17. How much money do governments collect from and spend on forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 17.1 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 revenue include: <ul style="list-style-type: none"> <li>• <u>Goods</u> : roundwood; sawnwood; biomass; woodbased panels; pulp and paper and non-wood forest products.</li> <li>• <u>Services</u> : including concession fees and royalties, stumpage payments, public timber sales revenue taxes and charges based on forest area or yield, taxes on domestic trade and export of forest products, special levies on forestry activities and payments into forest related funds, other miscellaneous inspection, licence and administrative fees levied by forest administrations, permit and licence fees for recreation and other forest related activities.</li> </ul>
Public expenditure on forestry	All government expenditure on forest related activities.

### 17.2 National data

#### 17.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Department Annual Report	N/A	2005	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 17.3 Data

Table 17

Category	Revenues / expenditures (000 local currency)		
	2000	2005	2010
Forest revenue	431.469	3819.286	N/A
Public expenditure on forestry	3894.253	9704.491	N/A
	2000	2005	2010
Name of Local Currency	FJD	N/A	N/A

**17.4 Comments**

Category	Comments related to data definitions etc
Forest revenue	Sources of Revenue: -Timber scaling fees -Joinery Items - Chemical Analysis test -Sale of Publication (including Logging Plan and Volume Assessment) and Park fees
Public expenditure on forestry	Funding of Annual Forestry programmes Funding of Forestry Extension Programmes with funds transferred from Government to the Private Sector.
Other general comments	N/A

Other general comments

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## 18. Who owns and manages the forests and how has this changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 18.1 Categories and definitions

Category	Definition
Public ownership	Forest owned by the State or administrative units of the public administration or by institutions or corporations owned by the public administration.
...of which owned by the state at national scale ( <i>sub-category</i> )	Forest owned by the State at the national scale or administrative units of the public administration or by institutions or corporations owned by the public administration.
...of which owned by the state at the sub-national government scale ( <i>sub-category</i> )	Forest owned by the State at the sub-national government scale or administrative units of the public administration or by institutions or corporations owned by the public administration.
Private ownership	Forest owned by individuals, families, communities, private cooperatives corporations and other business entities, private, religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
...of which individuals ( <i>sub-category</i> )	Forest owned by individuals and families.
...of which private business entities and institutions ( <i>sub-category</i> )	Forest owned by private corporations cooperatives companies and other business entities as well as private nonprofit organizations such as NGOs nature conservation associations, and private religious and educational institutions etc.
...of which local tribal and indigenous communities ( <i>sub-category</i> )	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area or forest owned by communities of indigenous or tribal people The community members are coowners that share exclusive rights and duties and benefits contribute to the community development.
Unknown ownership	Forest area where ownership is unknown includes areas where ownership is unclear or disputed.
Categories related to management rights of public forests	Definition
Public Administration	The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.
Individuals households	Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.
Private companies	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities private cooperatives, private nonprofit institutions and associations, etc., through long-term leases or management agreements.
Communities	Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.
Other form of management rights	Forests for which the transfer of management rights does not belong to any of the categories mentioned above.

### 18.2 National data

## 18.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Lands Department Fiji	N/A	2009	Land tenure definitions
2	Native Lands Trust Board	N/A	2009	Land tenure definitions
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

## 18.2.2 Classification and definitions

National class	Definition
Native Land	Land communally owned by indigenous land owners.
State Land	Land owned by the Government.
Freehold Land	Land owned (bought outright) by individuals
Leased Land	The land on which the two large plantations (mahogany & pine) are leased by the company from indigenous owners.

## 18.2.3 Original data

National Classes (1000ha.)	Freehold	Native	State	Total
Closed	31.958	523.938	27.737	583.631
Open	23.172	182.664	12.756	218.59
Plantation	10.531	100.813	16.510	127.853
Coconut	4.537	8.517	0.228	13.281
Non Forest	108.684	489.362	43.582	641.627
Inland Water	0	0	0	0
<b>Total</b>	<b><u>178.882</u></b>	<b><u>1,305.293</u></b>	<b><u>100.814</u></b>	<b><u>1,584.988</u></b>

Comments: The above table is obtained from area calculations from the Forestry Land tenure GIS layers, however at the end, the totals don't add up to the national land area total. This will need another calibration of the dataset to increase the total area by 242 012 hectares.

It is understood that 85% of the total land area for Fiji is communally owned by natives. The total land area under the Native category in the above table only account for 71% of the total land area. Thus it is clear that the total Native land area needs to be increased. The data acquired for this forest statistics is extracted from seven islands and the other 39% can be accounted for the other islands which was not undertaken in this exercise. Since most of the land is communally owned, some selected areas are not surveyed as in this case due to pending ownership issues.

### 18.3 Analysis and processing of national data

#### 18.3.1 Adjustment

Classes (1000 ha)	Tenure Areas
Closed Forest	583.631
Open Forest	218.593
Plantation	127.854
Coconut	13.282
Non Forest	640.583
Inland Water	1.045
<b>Total</b>	<b>1,584.988</b>

#### Calibrating the dataset:

Classes (1000 ha)	Tenure Areas (A)	Calibrated Forest Areas (B)	Difference (C) (B-A)
Closed Forest	583.631	587.791	4.160
Open Forest	218.59	362.198	143.608

Plantation	127.854	162.663	34.809
Coconut	13.282	28.669	15.388
Non Forest	640.583	665.387	24.804
Inland Water	1.045	20.292	19.248
<b>Total</b>	<b>1,584.988</b>	<b>1827.000</b>	<b>242.014</b>

**Comments:**

Tenure Area (A): Area calculated from the GIS Forest Layers

Calibrated Area (B): Total Calibrated Forest Area from T1

Difference (C), (B-A): This difference are added to the Native land areas to bring it up to around 85% of total land area and also to match the forest areas in T1 and T2.

Calibrated dataset:

<b>Classes</b>	<b>Freehold</b>	<b>Native</b>	<b>State</b>	<b>Total</b>
Closed	31.958	528.10	27.737	587.795
Open	23.172	326.268	12.756	362.196
Plantation	10.531	135.619	16.510	162.66
Coconut	4.537	23.908	0.228	28.673
Non Forest	108.448	513.444	43.496	665.388
Inland Water	0.236	19.97	0.086	20.292
<b>Total</b>	<b><u>178.882</u></b>	<b>1,547.309</b>	<b><u>100.814</u></b>	<b>1,827</b>
<b>%</b>	<b>10%</b>	<b>85%</b>	<b>6%</b>	

Increases are done only for the Native forest area.



## 18.3.2 Estimation and forecasting





FRA Categories	Freehold	Native	State
Public ownership			100%
Private Ownership	100%	100%	
...of which owned by individuals	100%		
...of which owned by private business entities			
... of which owned by local communities			
... of which owned by indigenous tribal communities		100%	
Other types of ownership			





## 18.3.3 Reclassification

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## 18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	2000	2005	2010
	Public ownership	53.176	53.176	53.176	N/A
	... of which owned by the state at national scale	N/A	N/A	N/A	N/A
	... of which owned by the state at the sub-national government scale	N/A	N/A	N/A	N/A
	Private ownership	899.724	927.264	944.084	N/A

	... of which owned by individuals	N/A	N/A	58.709	N/A
	... of which owned by private business entities and institutions	N/A	N/A	0	N/A
	... of which owned by local, tribal and indigenous communities	N/A	N/A	885.375	N/A
	Unknown ownership	0	0	0	N/A
<b>TOTAL</b>		952.90	980.44	997.26	.00

## Tiers

Category	Tier for status	Tier for reported trend
Public ownership	Tier 2	Tier 2
Private ownership	Tier 2	Tier 2
Unknown ownership	Tier 1	Tier 1

## Tier criteria

Category	Tier for status	Tier for reported trend
Ownership	Tier 3: National forestry statistics registers of land titles or maps on land ownership or all forest area under one ownership category that is five years old or less. Tier 2: National forestry statistics registers of land titles or maps on land ownership or questionnaires that are more than five years old. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other

Table 18b - Holder of management rights of public forests

Categories	Forest area (000 hectares)			
	1990	2000	2005	2010
Public Administration	N/A	N/A	53.176	N/A
Individuals	N/A	N/A	0	N/A
Private companies	N/A	N/A	0	N/A
Communities	N/A	N/A	0	N/A
Other	N/A	N/A	0	N/A

TOTAL	.00	.00	53.18	.00
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Category	Tier for reported trend	Tier for status
Public Administration	N/A	Tier 1
Individuals	N/A	N/A
Private companies	N/A	N/A
Communities	N/A	N/A
Other	N/A	N/A

### 18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	Mainly state land or previously termed "crown" land which was brought about on the day of Colonialism for which land were subject to the Crown or the government.	Tenure classified as Stateland remains static for most State land are legally binded to remain with the State.
Private ownership	Private ownership can also be Freehold land, for which the land belongs to the individual(s).	Tenure classified as Freehold lands remain static, Freehold land does not get re-classified but remain within the control of the owner.
Unknown ownership	Communal Ownership can also be classified as Private ownership for which the land is managed by the mataqali or clan.	Tenure under the Communal Ownership remains static.
Management rights	Communities are responsible for management and decision making with regards to the utilisation of their land and forest resources.	Government is in the process of reverting land ownership rights to the original owners.

#### Other general comments to the table

Description for all types of land tenure was obtained from the Fiji Department of Lands in 2009, including the general trend in the reversion of land ownership from private individuals whom are mostly foreigners to the indigenous owners.

## 19. How many people are directly employed in forestry?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 19.1 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment in forestry	Employment in activities related to production of goods derived from forests. This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

### 19.2 National data

#### 19.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Facts & Figures (GTZ)1998	1999	Forestry Facts & Figures Fiji 1998.	N/A
2	Bureau of Statistics	N/A	Employment in the Forestry sector.	N/A
3	Forestry Annual Report	N/A	Employment in the Forestry sector	N/A
4	N/A	N/A	N/A	N/A

#### 19.2.2 Classification and definitions

National class	Definition
Forestry	Includes all Forestry technical staff.
Logging	Includes employees in the logging industry, excluding owners.
N/A	N/A
N/A	N/A

#### 19.2.3 Original data

National Class	2001	2002	2003	2004	2005	2006	2007

Forestry	183	281	291	155		163	219	149
Logging	982	982	912	1141		1338	1404	1250
<b>Total</b>	<b>1165</b>	<b>1263</b>	<b>1203</b>	<b>1296</b>		<b>1491</b>	<b>1613</b>	<b>1399</b>

### Estimation and forecasting

National Class	1990	2000	2005	2010
Forestry	268	198	163	142
Logging	1998	1558	1338	1206
<b>Total</b>	<b>303</b>	<b>232</b>	<b>1491</b>	<b>1399</b>

\* Note: Data on 1990 and 2000 extracted from FRA2005.

\*Data for 2005 average from 2003-2007.

Growth in employment from 2000 to 2005 is due to the harvesting of mahogany plantations



Forestry – The decrease in staffing is due to the compulsory retirement at the age of 55 years

Logging – More jobs on logging as a result of mahogany harvesting and is still increasing based on pending

applications from companies that wish to harvest and process mahogany including the new softwood processing plant that will come on line soon.

## 19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	2000	2005	2010
	Employment in forestry	N/A	N/A	N/A	N/A
	... of which female	N/A	N/A	N/A	N/A

## 19.4 Comments

<b>Category</b>	<b>Comments related to data definitions etc</b>	<b>Comments on the reported trend</b>
Employment in forestry	N/A	N/A
<b>Other general comments to the table</b>		
N/A		

## 20. What is the contribution of forestry to Gross Domestic Product (GDP)?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 20.1 Categories and definitions

Category	Definition
Gross value added from forestry (at basic prices)	This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging).

### 20.2 Data

Table 20 (Pre-filled data from UNdata/EUROSTAT)

Category	Million	Currency	Year for latest available information
Gross value added from forestry (at basic prices)	51	Fiji dollar	2010

### 20.3 Comments

Category	Comments
N/A	N/A

Other general comments

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## 21. What is forest area likely to be in the future

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 21.1 Categories and definitions

Category	Definition
Government target/aspiration for forest area	Government target/aspiration for forest area for a specific year.
Forests earmarked for conversion	Forest area that is allocated/classified or scheduled to be converted into non-forest uses.

### 21.2 National data

#### 21.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

### 21.3 Data

Table 21a

Category	Forest area (000 ha)	
	2020	2030
Government target/aspiration for forest area	N/A	N/A

Table 21b

Category	Forest area (000 ha)
	2013
Forests earmarked for conversion	N/A

### 21.4 Comments

Category	Comments
Government target/aspiration for forest area	N/A



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Forests earmarked for conversion
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N/A
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Other general comments

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