

GLOBAL FOREST RESOURCES ASSESSMENT 2015

COUNTRY REPORT

Indonesia

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.

The content and the views expressed in this report are the responsibility of the entity submitting the report to FAO. FAO may not be held responsible for the use which may be made of the information contained in this report.

TABLE OF CONTENTS

Report preparation and contact persons.....	4
1. What is the area of forest and other wooded land and how has it changed over time?	5
2. What is the area of natural and planted forest and how has it changed over time?	19
3. What are the stocks and growth rates of the forests and how have they changed?	30
4. What is the status of forest production and how has it changed over time?	37
5. How much forest area is managed for protection of soil and water and ecosystem services?	48
6. How much forest area is protected and designated for the conservation of biodiversity and how has it changed over time?	55
7. What is the area of forest affected by woody invasive species?	65
8. How much forest area is damaged each year?	68
9. What is the forest area with reduced canopy cover?	74
10. What forest policy and regulatory framework exists to support implementation of sustainable forest management SFM?	75
11. Is there a national platform that promotes stakeholder participation in forest policy development?	79
12. What is the forest area intended to be in permanent forest land use and how has it changed over time?	80
13. How does your country measure and report progress towards SFM at the national level?	84
14. What is the area of forest under a forest management plan and how is this monitored?	87
15. How are stakeholders involved in the management decision making for publicly owned forests?	90
16. What is the area of forest under an independently verified forest certification scheme?	91
17. How much money do governments collect from and spend on forests?	93
18. Who owns and manages the forests and how has this changed?	95
19. How many people are directly employed in forestry?	102
20. What is the contribution of forestry to Gross Domestic Product (GDP)?	105
21. What is forest area likely to be in the future	106

Report preparation and contact persons

Contact persons

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

Name (FAMILY NAME, first name)	Institution/address	Email	Tables
Dr. Ernawati	Directorate General of Forest Planning, Ministry of Forestry, Block I 7th Floor Manggala Wanabhakti, Jalan Gatot Soebroto, Jakarta, Indonesia	mbak_erna@yahoo.com	N/A
tutisetiawati,MM	Directorate General of Forest Planning, Ministry of Forestry, Block I 7th Floor Manggala Wanabhakti, Jalan Gatot Soebroto, Jakarta, Indonesia	tutisetiawati@yahoo.co.id	N/A
Hediman	Directorate General of Forest Planning, Ministry of Forestry, Block I 7th Floor Manggala Wanabhakti, Jalan Gatot Soebroto, Jakarta, Indonesia	galung13@gmail.com	N/A
krisna dwipayana	Directorate General of Forest Planning, Ministry of Forestry, Block I 7th Floor Manggala Wanabhakti, Jalan Gatot Soebroto, Jakarta, Indonesia	kreasnha@gmail.com	N/A

Introductory Text

Forest Resources Assesment is very important to know he trendline of Global Data. using the data and information from FRA an predict the forest future of countries especially the developing countries which has dynamic policy dealing with forest and land.

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	Final report on Indonesia Forest Resource, 1996 (In Indonesia).	Extent	N/A	N/A

2	Forestry Statistic Book. Ministry of Forestry, 2000 (In Indonesia)	Land cover, extent	N/A	N/A
3	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	N/A	N/A
4	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	N/A	N/A
5	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, MoF Indonesia.	Land cover, extent	N/A	N/A
6	DG of Land Rehabilitation and Social Forestry. 2008. Statistic of development of land rehabilitation and social forestry. MoF	extent	N/A	N/A
7	Deforestation Accounting of Indonesia, 2006-2009	extent	2011	published by DG of Forest Planology yearly
8	Degradation Accounting of Indonesia, 2006-2009	extent	2011	Published by DG of Forest Planology yearly

1.2.2 Classification and definitions

National class	Definition
Primary Forest (Hutan Primer; Ind)	Forest with no ocular evidence of disturbance
Secondary Forest (Hutan Sekunder; Ind)	Forest with ocular evidence of disturbance
Planted Forest (Hutan Tanaman; Ind)	Manmade forest within state forestland
Non- forested area (Non Hutan; Ind)	It covers bush, shrub , agriculture crops, settlement and savanna, etc.
Forestland	Land designated for forest land use
Forest	Includes primary, secondary and planted forests. Forest and non forest are identified or mapped from Landsat images using visual interpretation. Since it is difficult to differentiate canopy cover in Landsat imageries, the forest is identified based on standard interpretation procedure in remote sensing such as tone or texture. During the mapping, the minimum interpreted area is 0.5 cm x 0.5 cm., approximately 6.25 hectares
Afforestation	The activities include urban forest, private forest, planting along the road side and environmental re-greening that was done outside forest land.
Reforestation	Forest establishment include community forest and re-greening in forest land.

1.2.3 Original data

2011	Deforestation based on Forest Type 2011	Permanent Forest											
		KSA-KPA	HL	HPT	HP	Jumlah	HPK	APL	TOTAL	Jumlah			
	A. Hutan Primer	1.281,10	1.654,20	2.702,60	6.646,90	12.284,9	1.708,2	13.993,0	3.226,9	17.219,9			
	- Hutan lahan kering primer	1.270,60	1.607,70	950,8	4.199,20	8.028,40	1.658,60	9.687,0	961,4	10.648,5			
	- Hutan rawa primer	10,5	4,1	1.751,8	2.434,9	4.201,4	46,8	4.248,2	2.106,5	6.354,7			
	- Hutan mangrove primer	N/A	42,4	N/A	12,7	55,1	2,7	57,9	158,9	216,8			
	B. Hutan Sekunder	8.132,20	18.770,50	40.948,7	133.324,5	201.175,9	63.206,1	264.381,9	111.927,4	376.309,3			
	- Hutan lahan kering sekunder	4.291,1	12.403,4	29.889,1	65.895,3	12.478,9	26.813,9	139.292,8	64.679,6	203.972,4			
	- Hutan rawa sekunder	3.776,7	6.035,6	10.749,5	66.357,0	86.918,8	36.217,1	123.135,9	46.671,0	169.806,9			
	- Hutan mangrove sekunder	64,5	331,4	310	1.072,20	1.778,20	175	1.953,20	576,9	2.530,0			
	C. Hutan Tanaman *	221,2	470,5	6.705,8	40.431,4	47.828,8	3.990,0	51.818,8	5.289,0	57.107,8			
	TOTAL	9.634,5	20.895,2	50.357,1	180.402,8	261.289,6	68.904,2	330.193,8	120.443,2	450.637,1			

2006-2009	Forest Degradation Based on Forest Type 2006-2009	Permanent Forest								Non Forest			
		KSA-KPA	HL	HPT	HP	sum	HPK	Sum	%	Sum	%	TOTAL	%
1	A. Hutan Primer - Hutan Sekunder	96,6	173,9	167,6	551	989,2	239,4	1.228,60	91,6	34,6	2,6	1.263,20	94,2
2	B. Hutan Primer - Hutan Lainnya		0	0	0,9	0,09	0	0,9	0,1		0	0,9	0,1
3	C. Hutan Sekunder - Hutan Lainnya	0,2	2,5	16,4	49,1	68,2	3,4	71,6	5,3	4,9	0,4	76,6	5,7
	TOTAL	96,9	176,4	184,1	601	1.058,30	242,8	1.301,10	97	39,6	3	1.340,70	100
Note:													
	KSA-KPA	Conservation Forest: National Park; Nature Reserve											
	HL	Protection Forest											
	HPT	Production Forest with Limited											
	HP	Production Forest											
	HPK	Production that can be converted											
	Hutan Primer	Primary Forest											

	Hutan Sekunder	Secondary Forest										
	Hutan Rawa	Peat Forest										
	Hutan Tanaman	Plantation Forest										

references: Image interpretation Landsat 7 ETM + covering 2009, 2011, Direktorat of Inventory and Monitoring Forest Resources.

Note: Forest Plantation based on Image Interpretation is Forest Cover that induced by human.

1.3 Analysis and processing of national data

1.3.1 Adjustment

Forest area

The objective of calibration in this table is the total land area for all periods should be consistent. Because of the base line of image interpretation for four periods is different. The calibration is merely for FRA 2015 reporting purpose and does not reflect the official total country area of Indonesia.

Calibration for total land area

Calibration is carried out in order to ensure that the reported area figures are consistent and the total land area/country area must match with the official UN statistics in FAOSTAT (as recommended at page 14 of the FRA 2015 Guidelines).

FAOSTAT Land area 000 ha	181 157
FAOSTAT Inland water 000 ha	9 300
FAOSTAT Country area 000 ha	190 457

Calibration factors are:

1990	0.96553
------	---------

2000	0.96487
2003	0.96435
2006	0.96473

1990	ForestLandArea (in 1000 Ha)							Non Forestland (in 1000Ha)	Total (1000Ha)
	HK	HL	HPT	HP	<i>Permanent</i>	HPK	<i>Total Forest'Land</i>	APL	
1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10
Forested	16,415	24,301	20,722	26,942	88,380	14,678	103,058	15,487	118,545
Non Forested	2,579	4,532	3,216	7,530	17,857	6,892	24,748	37,863	62,612
Shurbubush	-	-	-	-	-	-	-	-	-
Total	18,994	28,833	23,938	34,472	106,236	21,570	127,807	53,350	181,157

2000	ForestLandArea (in 1000 Ha)							Non Forestland (in 1000Ha)	Total (1000Ha)
	HK	HL	HPT	HP	<i>Permanent</i>	HPK	<i>Total Forest'Land</i>	APL	
1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10
Forested	15,324	23,272	18,825	21,774	79,194	11,030	90,224	9,185	99,409
Non Forested	2,174	3,731	3,164	6,919	15,987	6,949	22,937	36,184	59,121

Shurbubush	1,462	1,809	1,939	5,758	10,968	3,587	14,556	8,071	22,627
Total	18,959	28,812	23,928	34,451	106,150	21,566	127,716	53,441	181,157

2003	ForestLandArea (in 1000 Ha)							Non Forestland (in 1000Ha)	Total (1000Ha)
	HK	HL	HPT	HP	<i>Permanent</i>	HPK	<i>Total Forest'Land</i>	APL	
1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10
Forested	15,261	23,127	18,684	22,110	79,183	11,049	90,232	8,994	99,227
Non Forested	2,241	3,774	3,064	6,697	15,776	6,630	22,406	36,838	59,243
Shurbubush	1,499	1,905	2,156	5,636	11,196	3,878	15,074	7,613	22,687
Total	19,000	28,806	23,905	34,443	106,154	21,558	127,712	53,445	181,157

2006	ForestLandArea (in 1000 Ha)							Non Forestland (in 1000Ha)	Total (1000Ha)
	HK	HL	HPT	HP	<i>Permanent</i>	HPK	<i>Total Forest'Land</i>	APL	
1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10

Forested	15,211	22,930	18,509	21,626	78,276	10,781	89,057	8,115	97,172
Non Forested	2,388	3,950	3,280	7,507	17,124	7,025	24,150	37,870	62,020
Shurbubush	1,403	1,922	2,123	5,314	10,761	3,756	14,517	7,448	21,965
Total	19,001	28,802	23,912	34,447	106,161	21,563	127,724	53,433	181,157

2009	Forest Land Area (in 1000 Ha)							Non Forest land (in 1000 Ha)	Total (1000 Ha)												
	HK	HL	HPT	HP	Permanent	HPK	Total Forest Land			APL	1	2	3	4	5	8 *?4- 5- 6- 7+	7	8 (=6+7)	9	10	
	Forested	15,926.2	24,806.3	18,979.2	20,631.3	80,343.1	10,612.1	90,955.2	8,632.1	99,587.3											
Non Forested	4,160.1	6,769.7	3,360.8	16,092.9	30,383.5	12,123.6	42,507.1	45,664.5	88,171.5												
	-	-	-	-	-	-	-	-	-												
Total	20,093.6	31,595.1	22,343.8	36,736.4	110,768.8	22,744.9	133,513.8	54,327.2	187,840.9												

2011	Forest Land Area (in 1000 Ha)							Non Forest land (in 1000 Ha)	Total (1000 Ha)	1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10
	HK	HL	HPT	HP	Permanent	HPK	Total Forest Land												
Forested	15,987.38	24,762.78	18,811.89	20,269.23	79,831.28	10,279.39	90,110.67	8,575.41											
Non Forested	5,245.3	7,448.43	4,006.62	13,874.98	30,575.32	10,590.44	41,165.76	47,989.09											
Shurb bush	-	-	-	-	-	-	-	-	-										
Total	21,232.68	32,211.21	22,818.51	34,144.2	110,406.6	20,869.83	131,276.43	56,564.51	187,840.94										
2012	Forest Land Area (in 1000 Ha)							Non Forestland (in 1000Ha)	Total (1000Ha)	1	2	3	4	5	6 (=2+3+4+5)	7	8 (=6+7)	9	10
	HK	HL	HPT	HP	Permanent	HPK	Total Forest Land												
Forested	17554.80	24406.68	21709.44	18029.29	81700.19	7945.59	89645.79	8489.32											
Non Forested	4,496	5,964	6,189	12,134	28,783	9,906	38,689	50,933											
Shurb bush	-	-	-	-	-	-	-	-	-										

Total	22,058	30,388	27,908	30,168	110,522	17,864	128,387	59,454	187840.901
-------	--------	--------	--------	--------	---------	--------	---------	--------	------------

Forest expansion, reforestation

There is no need for calibration for processing the national data.

1.3.2 Estimation and forecasting

Land Cover

Forest area

Estimation and forecasting is needed to generate 2005 and 2010 data. These processes based on the 2003 data and 2006 data.

$$2005 \text{ data} = 2003 \text{ data} - [(2003 \text{ data} - 2006 \text{ data})/3]*2$$

$$2010 \text{ data} = 2006 \text{ data} - [(2006 \text{ data} - 2003 \text{ data})/3]*4$$

$$2015 \text{ data} = 2010 \text{ data} - [(2006 \text{ data} - 2003 \text{ data})/3]*5$$

The result of estimation and forecasting are presented in the following table:

National Class	Area (in 1000 Ha)						
	1990	2000	2003	2006	2005	2010	2015
Forestland	127,807	127,716	127,712	127,724	127,72	127,74	127,76
Forested	103,058	90,224	90,232	89,057	89,449	87,491	85,532
Shrub mix with bush	-	14,556	15,074	14,517	14,703	13,775	12,846

Not Forested	24,748	22,937	22,406	24,15	23,568	26,475	29,382
NonForestland	53,35	53,441	53,445	53,433	53,437	53,417	53,397
Forested	15,487	9,185	8,994	8,115	8,408	6,942	5,478
Shrub mix with bush	-	8,071	7,613	7,448	7,503	7,228	6,953
Not Forested	37,863	36,184	36,838	37,87	37,526	39,246	40,966
Total	181,157	181,157	181,157	181,157	181,157	181,157	181,157

1.3.3 Reclassification

Forest area				
The following table shows the percentage of national classes included into FRA 2015 categories.				
National Class	Percentage allocation to FRA 2015 Categories			
	Forest	Other wooded land	Other land	Other land with tree cover
Forestland				
Forested	100			
Shrub bush		100		
Not Forested			100	
Non Forestland				
Forested	100			
Shrub bush		100		
Not Forested			100	
categories	Area (1000 hectares)			

	1990	2000	2005	2010
Forest	118,545	99,409	97,857	94,432
Other wooded land	n.a.	22,627	22,206	21,003
Other land	62,612	59,121	61,094	65,721
Other land with tree cover	n.a.	n.a.	n.a.	n.a.
Total	181,157	181,157	181,157	181,157

1.4 Data

Table 1a













Categories		Area (000 hectares)				
		1990	2000	2005	2010	2015
	Forest	118545	99409	97857	94432	91010
	Other wooded land	22627	22627	22206	21003	26748
	Other land	30685	49821	51794	56422	54099
	... of which with tree cover	5220	5220	8063	9406	10748
	Inland water bodies	9300	9300	9300	9300	9300
	TOTAL	181157.00	181157.00	181157.00	181157.00	181157.00

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	60.2418	85.8832	938.648	1910.052	N/A	N/A	N/A	N/A
	... of which afforestation	60.2418	85.8832	938.648	1910.052	N/A	N/A	N/A	N/A
	... of which natural expansion of forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deforestation	1.87	3.51	1.17	0.45	N/A	N/A	N/A	N/A
	... of which human induced	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	Reforestation	60.7	33	525.284	866.74	N/A	N/A	N/A	N/A
	... of which artificial	60.67	33	153.9414	542.3	N/A	N/A	N/A	N/A

Tiers

Category	Tier for status	Tier for reported trend
Forest	Tier 3	Tier 3
Other wooded land	Tier 2	Tier 2
Forest expansion	Tier 2	Tier 1
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"> • Forest • Other wooded land • Afforestation • Reforestation • Natural expansion of forest • Deforestation 	<p>Tier 3 : 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>Tier 2 : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 years ago)</p> <p>Tier 1 : Other</p>	<p>Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status)</p> <p>Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status)</p> <p>Tier 1 : Other</p>

1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	Classification of forest and non forest in this report derived from Landsat ETM image interpretation. Due to the limitation of ground resolution, any forest with area less than the resolution of this image will be ignored. On Landsat images is difficult to differentiate canopy cover. The minimum interpreted area is approximately 6.25 hectares.	Decrease in forest area is not too significant, might be caused by a balance between logging and planting Three yearly monitoring data indicates decreasing on cloud cover, it probably becomes mislead if the report just relies on single monitoring , since the percentage and distribution of cloud cover are various from each period, and the latest monitoring (2006) shows smallest percentage of cloud cover. Spatial analysis has been done to improve the data and 2006 data has been decided as reference to improve previous monitoring especially to fill cloud cover and not available data, hence the figure reported is a bit different as it has been reported on FRA 2005.
Other wooded land	Shrub bush area within or outside of forestland, that is land grown by bushes and small trees less than 20 cm in diameter and crown cover more than 10 %. Shrub bush has low timber volume	N/A

Other land	All non forested areas are classified as "other land". It covers by agriculture crops, settlement, savanna and other uses. Oil palm plantation are also categorized as "other land" since they are managed by Ministry of Agriculture.	Increase in other land probably caused by the need of land for other sectors, such as estate, agriculture, settlements, mining and infrastructure .
Other land with tree cover	The definition given by FAO is closely related to "estate" in landcover classification, and the country prefers to group it into non forested, because the management is under the Ministry of Agriculture	N/A
Inland water bodies	The extent of inland water bodies based on the FAO statistics for Indonesia that is 9,300,000 ha.	N/A
Forest expansion	The afforestation data are also based on the terrestrial survey. The afforestation activities include community forest (Hutan Rakyat), terras rehabilitation, city forest, mangrove rehabilitation and development of community forest outside forestland. Oil palms plantation do not include at this activity. Afforestation activities in Ministry of Forestry also have other activities, such as rehabilitation along river and road	N/A
Deforestation	reducing the number of land cover (trees, shrubs,and other land cover)and decreasing the quality of forest due to human activities . the result of these activities made some forest areas become no cover and difficult to be forested again.	deforestation number is accounted from the number of forest cover at primary forest, secondary forest, and other kind forest) in previous year to the recent year. usually using Sateelite Imagery Interpretation 7 ETM. the difference before and after is the result of deforestation.
Reforestation	The reforestation data based on the terrestrial survey. The reforestation activities include re-greening, social forestry and community forest (HKm) in forestland.	N/A

Other general comments to the table

Forest extent derived from 3 yearly forest monitoring by using Landsat Imageries, that are 1990/2000, 2002/2003 and 2005/2006. All period have same classification, except for 1990/2000. The land cover extent of 2003 and 2006 were used to estimate the land cover extent of 2005 and to forecast the land cover extent of 2015. That is might be one of the reasons then the figure in this report is a bit different compared with previous assessment (FRA 2010). To be able to make consistence monitoring then the classes are grouped into forested and non forested. The significant decline in deforestation rates from period of 1990 # 2000 to the next period because of several reasons; # Large forest fires during long drought in year 1997 # 1998, more than 4 millions hectares of natural forest burnt # Moratorium of forest conversion through Ministry of Forestry letter in year 2000 # Policy on soft landing through quota reduction on round wood production from natural forest in year 2002 # Promoting forest plantation for non forested Production Forest to support wood industries # Reforestation/Afforestation Since the decision has been made to calibrate all total land area for all periods to country land area based on FAOSTAT, which is the area is 6 millions ha smaller than the factual area, we suggest to consider it for next assessment. This figure will also influence the calculation of growing stock, biomass and carbon stock.

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 <i>outside</i> 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	GOI. 2000. RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Indonesian)	Extent	1985	Based on various remote sensing data interpretation
2	GOI.1996. Final report on Indonesia Forest Resource (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data

3	GOI. 2000. Forestry Statistic book, Ministry of Forestry (In Indonesia)	Extent	2000	Based on Landsat Imagery interpretation
4	GOI, 2003. Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Information of land cover based on interpretation of Landsat 7 ETM+ that acquired at 1999/2000 with field sample plot
5	GOI, 2005. Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	2002/2003	Information of land cover based on interpretation of Landsat 7 ETM+ that acquired at 2002/2003 with field sample plot
6	GOI, 2008. Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	2005/2006	Information of land cover based on interpretation of Landsat 7 ETM+ that acquired at 2005/2006 with field sample plot
7	GOI. 2000. RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Indonesian)	Extent	1985	Based on various remote sensing data interpretation
8	GOI.1996. Final report on Indonesia Forest Resource (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data
9	Rekalkulasi Penutupan Lahan Indonesia Tahun 2009-2010	extent	2009-2010	Based on Landsat MSS interpretation data 7+ETM , 2009/2010

2.2.2 Classification and definitions

National class	Definition
Primary Forest (Hutan Primer)	Explanation : Forest with no ocular evidence of disturbance. This is indicated by the occurrence of logging roads.
Secondary Forest (Hutan Sekunder)	Explanation : Forest with ocular evidence of disturbance
Planted Forest (Hutan Tanaman)	Explanation : Man made forest within legal forest boundaries
Mangroves	Area of forest land with mangrove vegetation.

2.2.3 Original data

--

Total		586	872	194	368	2.019	441	2.460	447	2.907
	Note:									
		KSA-KPA	Conservation Forest: National Park; Nature Reserve							
		HL	Protection Forest							
		HPT	Production Forest with Limited							
		HP	Production Forest							
		HPK	Production that can be converted							
		Hutan Primer	Primary Forest							
		Hutan Sekunder	Secondary Forest							
		Hutan Rawa	Peat Forest							
		Hutan Tanaman	Plantation Forest							
		APL	Areal Non Forest for other purposes (Areal Penggunaan Lain)							
Forestland										
Forest classification on 1990 is different form forest classification on 2000, 2003 and 2006, which was standardized										
National Class	Area (1000 ha)									
	1990 *	2000	2003	2006						
Primary Forest	n.a.	45,791	44,465	44,095						
Secondary Forest	n.a.	43,225	44,053	42,622						
Planted Forest	n.a.	3,419	3,484	3,419						

Total	105,3	92,435	92,001	90,136						
Non Forestland										
National Class	Area (1000 ha)									
	1990 *	2000	2003	2006						
Primary Forest	n.a.	1,231	1,129	1,051						
Secondary Forest	n.a.	6,946	6,887	6,034						
Planted Forest	n.a.	1,323	1,251	1,24						
Total		9,5	9,267	8,325						
Proportional cloud cover allocation										
Forestland										
National Class	Area (1000 ha)									
	1990 *	2000	2003	2006	2009	2012				
Primary Forest	n.a.	45,791	44,465	44,095	46.421	47.679				
Secondary Forest	n.a.	43,225	44,053	42,622	47.926	45.601				
Planted Forest	n.a.	3,419	3,484	3,419	4.339	4.856				
Total	105,3	92,435	92,001	90,136	98.686	98.135				
Non Forestland										

National Class	Area (1000 ha)									
	1990	2000	2003	2006						
Primary Forest	n.a.	1,233	1,136	1,061						
Secondary Forest	n.a.	6,96	6,932	6,097						
Planted Forest	n.a.	1,326	1,259	1,253						
Total	16,04	9,519	9,327	8,411						
Non Forestland (non Forest Cover) 2009 (Ribu Ha)		Permanent Forest							Non Forest	TOTAL
NO.	Forest Type	KSA-KPA	HL	HPT	HP	Total	HPK	Total	APL (non Forest)	
1	bush/shrubs	754,6	2001,4	1101,5	4300,9	8158,5	2110,1	10268,5	5422	15690,6
2	swamp shrubs	963	443,3	181,2	3215,1	4802,6	2069,7	6872,3	2006,7	8879
3	Savana	759,7	490,1	54,3	554,9	1859	647,8	2506,7	1228,1	3734,9
4	Perkebunan	63,6	143,6	304,2	1601,2	2112,7	2424,2	4536,9	4869,2	9406,1
5	Estate Croplantation	186,7	631,8	249,8	960,9	2029,3	722,2	2751,5	7361,5	10113
6	shrub mixed Dryland Farm	627,2	2361,2	1222,8	3244,7	7455,9	2350,7	9806,7	14789,4	24596,1
7	Transmigration	3,8	0,7	5,4	28	37,9	92,4	130,3	190,6	320,9
8	Paddy Fields	35,2	110,9	70,6	208,6	425,3	481,6	906,9	5688,2	6595,1
9	Fish Pond	36,8	121,7	8,4	224,2	391,2	6,4	397,6	528,7	926,2
10	Barred land	362,2	367,1	122,1	794,6	1645,9	490,6	2136,5	915,2	3051,7
11	Mining Area	11,9	15,6	17,5	145,7	190,8	57,8	248,6	231,1	479,7
12	Settlements	16,4	26,3	15,7	86,8	145,3	212,8	358,1	2185,8	2543,9

13	Swamp	338,8	55,7	6,8	726,8	1128,1	455,5	1583,7	234,9	1818,5	
14	Airport	0,1	0,2	0,4	0,5	1,1	1,7	2,9	12,9	15,8	
Total Non Forest		4160,1	6769,7	3360,8	16092,9	30383,5	12123,6	42507,1	45664,5	88171,5	
Non Forestland (non Forest Cover) 2012 (Ribuan Ha)		Permanent Forest							Non Forest	TOTAL	
NO.	Forest Type	KSA- KPA	HL	HPT	HP	Total	HPK	Total	APL (non Forest)		
1	bush/ shrubs	852,1	1822,7	2023,3	3429	8127	1823	9950	5461,3	15411,4	
2	swamp shrubs	1116,8	504,1	648,8	1999	4268,8	1560,1	5828,9	2617,8	8446,7	
3	Savana	740,1	417,6	158,4	364,8	1680,9	572,1	2253	1214,3	3467,3	
4	Perkebunan	50	104,6	375,6	1064,9	1595,1	1752,8	3347,9	5750,7	9098,6	
5	Estate Croplantation	170,4	555,5	457,4	761,1	1944,4	726,6	2671	7695,2	10366,2	
6	shrub mixed Dryland Farm	740,8	1951,4	1997,4	2805,3	7494,9	2109,9	9604,8	16487,8	26092,6	
7	Transmigration	0,8	0,4	3,3	15,3	19,8	29,8	49,6	264,8	314,4	
8	Paddy Fields	29,1	96	65,9	162,5	353,5	363,5	717	6854,4	7571,4	
9	Fish Pond	36,4	121	14,6	188,9	361	8,1	369,1	483,1	852,2	
10	Barred land	386,6	292,1	252,4	826,9	1758	404,5	2162,6	1184,5	3347	
11	Mining Area	7,6	17,5	35,5	145,5	206,1	61,9	268	283,4	551,4	
12	Settlements	12,5	18,7	15	38,3	84,5	157,4	241,9	2285,9	2527,8	
13	Swamp	352,6	62,4	141,7	332,3	889	334,7	1223,6	334,5	1558,2	
14	Airport	0	0,1	0,2	0	0,3	1,4	1,7	14,8	16,5	
Total Non Forest		4496	5964,2	6189,5	12133,7	28783,4	9905,7	38689,1	50932,6	89621,7	

2.3 Analysis and processing of national data

2.3.1 Adjustment

Calibration factors:

2000 is 0.94062

2003 is 0.94246

2006 is 0.94823

National class	Calibrated area (1000ha)			
	1990	2000	2003	2006
Primary forest	n.a.	49270	47956	47647
Secondary forest	n.a.	46468	47512	45856
Planted forest	n.a.	3672	3757	3668
Total	118,545	99,409	99,226	97,172

2.3.2 Estimation and forecasting

Estimation is needed for 2015. Estimation has been done using linear interpolation. Forecasting is required to predict the extent of forest based on the designated forest function in 2015. Forecasting has been done using linear extrapolation method.

$$2005 = 2003 - ((2003-2006)/3)*2$$

$$2010 = 2006 - ((2006-2003)/3)*4$$

Forest area (1000ha)	2005	2010	2015
Primary forest	47750	47236	47.679
Secondary forest	46408	43647	45.601
Planted forest	3699	3548	4.856
Total	97857	94432	98.135

2005 data = 2003 data – [(2003 data – 2006 data)/3]*2



2010 data = 2006 data – [(2003 data – 2006 data)/3]*4

2.3.3 Reclassification

National Class	FRA 2015 categories		
	Primary	Other naturally regenerated forest	Planted forest
Primary forest	100		
Secondary forest		100	
Planted forest			100

2.4 Data

Table 2a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Primary forest	N/A	49453	48310	47167	46024
	Other naturally regenerated forest	N/A	46634	44888	42462	40040





	... of which of introduced species	N/A	0	0	0	0
	... of which naturalized	N/A	0	0	0	0
	Planted forest	N/A	3322	4659	4803	4946
	... of which of introduced species	N/A	0	0	0	0
TOTAL		.00	99409.00	97857.00	94432.00	91010.00

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
N/A	N/A	N/A	N/A	394.5	209.4	N/A	366.3	649.7

Table 2c

Categories	Area (000 hectares)				
	1990	2000	2005	2010	2015
Mangroves (forest and OWL)	3058	3062.2	3443.8	2843.9	2244
... of which planted	3.153	3.593	3.448	4.726	6.004

Tiers

Category	Tier for status	Tier for reported trend
Primary forest	Tier 2	Tier 1
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>Tier 3 : 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>Tier 2 : Data sources: Full cover mapping/ remote sensing or old NFI (more than 10 years) Tier 1 : Other</p>	<p>Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other</p>
--	---	--

2.5 Comments

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	The extent of primary forest from 1990 until 2010 has been reduced. This caused by the land cover change from forest to other land (deforestation) and reducing of forest quality (degradation).	N/A
Other naturally regenerating forest	Other naturally regenerating forest also called secondary forest that is clearly visible indications of human activities, such as illegal logging, land occupation etc.	N/A
Planted forest	Planted forest is man made forest within legal forest boundaries. This area was managed by the companies (HPH and HTI) and placed in production forest.	N/A
Mangroves	N/A	N/A

Other general comments to the table

It is difficult to match the forest classification for all assessments, since classification of forest in 1990 is different from others.

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	Rekalkulasi Data Penutupan Lahan(Forest Cover Recalculation)	forest cover	each year	edited every year
2	Rekalkulasi Deforestasi (Deforestation Recalculation)	Deforestation Rate	each year	edited every year
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

--

3.3 Analysis and processing of national data

3.3.1 Adjustment

--

3.3.2 Estimation and forecasting

--

3.3.3 Reclassification

--

3.4 Data

Table 3a




Category	Growing stock volume (million m ³ over bark)									
	Forest					Other wooded land				
	1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
 Total growing stock	14233	13229	12459	11343	10227	N/A	N/A	N/A	N/A	N/A
 ... of which coniferous	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A
 ... of which broadleaved	14233	13229	12459	11343	10227	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	Shorea sp	Meranti	1832	1702	1603	4769
2 nd	Beilschmiedia sp	Medang	523	486	458	1440
3 rd	Dipterocarpus sp	Keruing	497	462	435	642
4 th	Eugenia sp	Kelat	187	173	163	0
5 th	Terminalia sp	Bintangur	155	144	136	0
6 th	Palaquium sp	Nyatoh	182	170	160	551
7 th	Dysoxylum sp	Jambu-jambu	113	105	99	978
8 th	Eugenia sp	Ubah	128	119	112	1240
9 th	Shorea sp	Resak	113	105	99	389
10 th	Palaquium sp	Balam	116	108	101	0
Remaining			10387	9655	9093	1334
TOTAL			14233.00	13229.00	12459.00	11343.00

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	This threshold is only for natural forest.
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	N/A	Top end of stem is the position of the first branch
Minimum diameter (cm) of branches included in growing stock (W)	N/A	Branches are not included in the growing stock calculation
Volume refers to above ground (AG) or above stump (AS)	N/A	refers to $0,25 \times 3.14 \times \text{Dbh}^2$, in which Dbh is measured at breast or high 20 cm above buttress

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 ³ per hectare and year)
----------	--




		Forest				
		1990	2000	2005	2010	2015
	Net annual increment	N/A	N/A	N/A	2.499	2.5
	... of which coniferous	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	N/A	N/A	N/A	2.499	2.5

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	26134	24287	22875	20826	18777	N/A	N/A	N/A	N/A	N/A
	Below ground biomass	8624	8015	7549	6872	6195	N/A	N/A	N/A	N/A	N/A
	Dead wood	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A
TOTAL		34758.00	32302.00	30424.00	27698.00	24972.00	.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	13067	12143.5	11437.5	10413	9390.5	N/A	N/A	N/A	N/A	N/A
	Carbon in below ground biomass	4312	4007.5	3774.5	3436	3097.5	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Living biomass</i>	17379	16151	15212	13849	12477	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		17379.00	16151.00	15212.00	13849.00	12488.00	.00	.00	.00	.00	.00

Tiers

Variable/category	Tier for status	Tier for trend
Total growing stock	Tier 1	Tier 1
Net annual increment	Tier 1	Tier 1
Above ground biomass	Tier 1	Tier 1
Below ground biomass	Tier 1	Tier 1
Dead wood	Tier 1	Tier 1
Carbon in above-ground biomass	Tier 1	Tier 1
Carbon in below ground biomass	Tier 1	Tier 1
Carbon in dead wood and litter	Tier 1	Tier 1
Soil carbon	Tier 1	Tier 1

Tier criteria

Category	Tier for status	Tier for reported trend
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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other
<ul style="list-style-type: none"> • Carbon in above ground biomass • Carbon in below ground biomass • Carbon in dead wood and litter • Soil carbon 	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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : 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	The growing stock for 1992 is only from natural forest, since the growing stock from plantation forest was not available. The growing stock for 1998 is taken from natural forest and from Java plantation forest. The growing stock for 2003 data to estimate 2005 and 2010 figures were taken from natural forest data of NFI 1996 - 2006.	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
-------------	-----	-----

Other general comments to the table

Total growing stock calculated for all species includes commercial and non commercial species. Growing stock for year 2005 is calculated based on inventory data between 1998 # 2003 Biomass is only calculated for the forest, since there is inadequate data to calculate other category (other wooded land) Same as biomass stock, carbon stock for 1990 and 2005 are calculated from stocks per hectare for natural forest and only for living biomass. For other wooded land is not calculated. No data available for this question/ table

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	RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Ind.)	Extent	1985	Based on various remote sensing data interpretation
2	1982/1983, Forestland Use by Concensus, DGForestry, MoA	Extent	1982/1983	Based on map overlaying,
3	1990, Forestland Use Designation (Penunjukan Kawasan Hutan dan Perairan), MoF	Extent	1990/1992	Based on map overlaying,
4	Final report on Indonesia Forest Resource, 1996 (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data
5	Forestry Statistic book, Ministry of Forestry, 2000 (In Indonesia)	Extent	2000	Based on Landsat Imagery interpretation

6	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Based on interpretation of Landsat 7 ETM+, acquired in 1999/2000 with field checking
7	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF.	Land cover, extent	2002/2003	Based on interpretation of Landsat 7 ETM+, acquired in 2002/2003 with field checking
8	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2005/2006	Based on interpretation of Landsat 7 ETM+, acquired in 2005/2006 with field checking
9	Eksekutif, Data Strategis Kehutanan 2012	extent	2012	compressing all data become one book that always renew every year

4.2.2 Classification and definitions

National class	Definition
Production Forest (HP)	State Forestland designated for production purposes
Limited production forest (HPT)	State Forestland designated for limited production purposes due to the topographic and soil condition
Convertible production forest (HPK)	Forestland designated for production purposes and reserved for non forestry purposes development. Forest type is mostly dry land forest.
Total production forest (HP+HPT+HPK)	Explanation : Sum of HP, HPT and HPK
Non Forestland (APL)	Land outside forestland which designated for non forestry purposes. Though this is not a forestland, community forest, forests occur on this land
Social services	Forest/other wooded land designated for the provision of social services, eg., religion, cultural, education.
Multiple purpose	Forest/other wooded land designated to any combination of : production of goods, protection of soil and water, conservation of biodiversity and provision of social services and where none of these alone can be considered as being significantly more important than the others.
No or unknown function	Forest/other wooded land for which a specific function has not been designated or where designated function is unknown.

4.2.3 Original data

The original data in the following tables is calculated after distributing cloud cover proportionally into forested and not forested

1990 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	64,568	18,267
Protection forest (HL)	25,169	4,694
Conservation forest (HK)	17,001	2,671
Non forest land (APL)	16,040	39,215
Total	122,777	64,847

2000 data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	53,507	17,652
Protection forest (HL)	24,119	3,867
Conservation forest (HK)	15,881	2,253
Non forest land (APL)	9,519	37,501
Total	103,027	61,272

2003 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	51,843	16,391
Protection forest (HL)	23,127	3,774

Conservation forest (HK)	15,261	2,241
Non forest land (APL)	8,994	36,838
Total	99,225	59,244

2006 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	52,778	18,464
Protection forest (HL)	23,768	4,094
Conservation forest (HK)	15,767	2,475
Non forest land (APL)	8,411	39,254
Total	100,725	64,287

2009 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	20,631.3	16,092.9
Protection forest (HL)	24,806.3	6,769.7
Conservation forest (HK)	15,926.1	4,160.1
Non forest land (APL)	8,632.1	45,664.5
Total	69,996	72,687

2012 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	18,029.3	12,133.7
Protection forest (HL)	24,406.7	5,964.2
Conservation forest (HK)	17,554.8	4,496
Non forest land (APL)	8,489.3	50,932.6
Total	68,480	73,527

4.3 Analysis and processing of national data

4.3.1 Adjustment

Calibration has been conducted for 1990, 2000, 2003 and 2006 data.

1. 1990 Data

National Class	Cover (1000 ha)
	Forested
Total Production forest (HP)	62,342
Protection forest (HL)	24,301
Conservation forest (HK)	16,415
Non forest land (APL)	15,487
Total	118,545

B. 2000 data

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	51,628	
Protection forest (HL)	23,272	
Conservation forest (HK)	15,324	
Non forest land (APL)	9,185	
Total	99,409	

1. 2003 Data

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	51884	
Protection forest (HL)	23127	
Conservation forest (HK)	15,261	
Non forest land (APL)	8,994	
Total	99,226	

1. 2006 Data

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	50,916	

Protection forest (HL)	22,930	
Conservation forest (HK)	15,211	
Non forest land (APL)	8,115	
Total	97,172	

Note: A Calibration factor for 1990 data is:0.96553

B Calibration factor for 2000 data is:0.96487

C Calibration factor for 2003 data is:0.99067

D Calibration factor for 2006 data is:0.96473

4.3.2 Estimation and forecasting

Estimation is needed for 2005 and 2010

2005 data = 2003 data – [(2003 data – 2006 data)/3]*2

2010 data = 2006 data – [(2003 data – 2006 data)/3]*4

2012 data = 2006 data – [(2003 data – 2006 data)/3]*6

National categories	1990	2000	2003	2006	2005	2010	2012
Production forest HP +HK+HPT	62342	51,628	51884	50916	51225	49680	48980
Protection forest HL	24301	23,272	23127	22930	22996	22667	22536
Conservation forest HK	16415	15,324	15261	15211	15228	15144	15111
Non forest land APL	15487	9,185	8994	8115	8408	6941	6357
Total forest	118545	99409	99226	97172	97857	94432	93064

4.3.3 Reclassification

National Class	FRA 2010 Categories					
	Production	Protection for soil and water	Conservation of biodiversity	Social services	Multiple purposes	No or unknown function
Production forest (HP)	100					
Protection forest (HL)		100				
Conservation forest (HK)			100			
Non forestland						100

4.4 Data

Table 4a



Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	62342	60961.6	60492.6	59080.2	57667.8
	Multiple use forest	36440	18798	17668	14119	12109

Table 4b

Rank	Name of product	Key species	Commercial value of NWFP removals 2010 (value 1000 local currency)	NWFP category
1 st	rattan	Calamus caesius	1577667460	5
2 nd	gondorukem	Pinus merkusii	157295567	4
3 rd	damar	Shorea javanica	18076968	4
4 th	terpentin	Pinus merkusii	57267743	4
5 th	kopal	resin of Agathis dammara	5173537	4

6 th	gaharu/sandalwood oil	N/A	37500000	3
7 th	kayuputih (cayeput oil)	Eucalyptus	35017155	3
8 th	madu	honey	6141047	1
9 th	benang sutra	silk	N/A	5
10 th	shellack	Schleichera oleosa (mother trees)	1484309	4
TOTAL			1895623786.00	

2010	
Name of local currency	rupiah

Category
Plant products / raw material
1 Food
2 Fodder
3 Raw material for medicine and aromatic products
4 Raw material for colorants and dyes
5 Raw material for utensils handicrafts construction
6 Ornamental plants
7 Exudates
8 Other plant products
Animal products / raw material
9 Living animals
10 Hides skins and trophies
11 Wild honey and beewax
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 ³ u.b.)	
	Total wood removals	...of which woodfuel
1990	47429.335	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	11432.501	N/A
2002	9004.105	N/A
2003	11423.501	N/A
2004	13548.938	N/A
2005	31965.725	N/A
2006	34092.484	N/A
2007	32197.046	N/A
2008	32000.786	N/A
2009	34320.536	N/A
2010	42114.77	N/A
2011	47429.335	N/A

Tiers

Category	Tier for status	Tier for reported trend
Production forest	Tier 3	Tier 3
Multiple use forest	Tier 1	Tier 1

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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other

4.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Production forest	Most of production forest in Indonesia are managed by the private companies that controlled by Ministry of Forestry.	N/A
Multiple use forest	N/A	N/A
Total wood removals	most of total round timber that cut from natural forest. those timber as the material of plywood, sawn timber, wood working and block board.	N/A
Commercial value of NWFP	commercial value is standardized by decree of Ministry of Industry who responsible in marketing all wood (and derivation) and NWFP.	N/A

Other general comments to the table

Forest area under sustainable forest management and Forest area with management plan * base on statistic 2006 and remote sensing data. The forest based on forest function (conservation forest, production forest and protection forest) was derived from remote sensing data and designation forest land use map. Convertible Production Forest (HPK) is allocated for development of other sectors.

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	Data and Information of Directorate General Planology, Ministry of Forestry. 2012	Large area(Ha)	2012	Data and Information mainly describe of forest area that changed to be another purposes.

2	Data and Information of Landused change,2011	large (area)	2011	Data and Infomation of forestland use changed at each provinces in Indonesia
3	Ministry of Forestry Decree No. P. 68/Menhut-II/2008	large area (Ha); number	2008	Penyelenggaraan DA Pengurangan Emisi Karbon dari Deforestasi dan Degradasi Hutan. (Developing DA for reducing Carbon Emission from Deforestation and Degradation)
4	Ministry of Forestry Decree No. P. P. 20/Menhut-II/2012	large area (Ha); number	2012	Carbon activities, deals with oportunities to have carbon markets that including local people.

5.2.2 Classification and definitions

National class	Definition
Forest Landuse	the total of arrangements, activities, and inputs undertaken in a certain land cover type (a set of human actions). The social and economic purposes for which land is managed (e.g., grazing, timber extraction, conservation)
Forest DA	Cooperation the department of forestry with the australian government, the German government, International Tropical Timber Organization (ITTO) and The Nature Conservancy (TNC)
Carbon Activities	may constitute storage and / or sequestration of carbon
Restoration Ecosystem	defined as the process of assisting with the recovery of an ecosystem that has been degraded, damaged or destroyed by re-establishing its structural characteristics, is species composition and ecological processes

5.2.3 Original data

Luas Hutan Lindung Se-Indonesia								
Kawasan Hutan	2009 (ribu ha)	2011 (ribu ha)	2012 (ribu ha)					
Hutan Lindung	31595	32211	30388					
Luas Kawasan Konservasi dan Hutan Lindung Per Provinsi tahun 2012								

Provinsi	CA (Ha)	SM (Ha)	TN (Ha)	TAHURA (Ha)	TWA (Ha)	TB (Ha)	KSA +KPA +TB (Ha)	HL (Ha)
Aceh	16940	102370	623987	6220	16412	86704	852633	1841775
Sumatera Utara	16618	85552	311444	51600	3506	8350	477070	1297330
Sumatera Barat	278895	0	566430	240	610	0	845105	758719
Riau	18879	401181	194291	12092	6787	16000	649230	334725
Kep. Riau	2221	0	0	0	0	0	2221	76391
Jambi	3200	0	683290	36660	430	0	723580	199693
Bengkulu	3511	0	405286	1708	25903	15909	452317	244808
Sumatera Selatan	1	280903	381772	0	50	0	662726	591527
Kep. Bangka Belitung	34690	0	0	0	0	0	34500	164345
Lampung	31016	128650	280120	22244	0	0	462030	317615
Banten	9518	0	100475	1590	2998	0	112991	12359
DKI Jakarta	18	115	40	0	100	0	272	45
Jawa Barat	31863	13742	167077	642	3456	12421	229201	253450
Jawa Tengah	3142	104	23540	462	241	0	27489	73354
DI Yogyakarta	96	412	1284	617	119	0	2528	1057
Jawa Timur	10995	17968	175885	24981	297	0	230126	373979
Bali	1763	0	15588	1374	4154	0	22879	95766
NTB	0	35298	63623	4857	12016	52250	168044	430485
NTT	107345	18920	59060	353	36805	5850	228333	731220
Kalimantan Barat	153275	22215	1252895	0	29310	0	1457695	2238005
Kalimantan Tengah	111533	0	1487220	0	2768	0	1601522	1876324
Kalimantan Selatan	76766	6851	0	127887	1781	0	213285	526425
Kalimantan Timur	172772	0	1930076	61850	0	0	2164698	2751702

Sulawesi Utara	20891	28543	195815	0	0	0	245249	180833
Gorontalo	110153	72451	14049	0	0	0	196653	204608
Sulawesi Tengah	326677	30189	328619	11248	347	5000	702080	1479264
Sulawesi Tenggara	486	94852	79379	6152	7339	0	188208	1053153
Sulawesi Barat	0	1283	0	0	0	0	215467	463688
Sulawesi Selatan	63861	42448	42637	3386	78199	13932	244463	1232683
Maluku Utara	35745	0	167300	0	0	0	203045	412302
Maluku	102619	0	185646	0	738	0	289002	833080
Papua Barat	2213263	4500	25460	0	31371	0	2274593	1644636
Papua	957118	2126717	2665042	0	2349	0	5751227	8974454
TOTAL	4915871	3515264	12427329	376163	268085	216416	21930461	31669800

5.3 Analysis and processing of national data

5.3.1 Adjustment

--

5.3.2 Estimation and forecasting


--







5.3.3 Reclassification

--

5.4 Data

Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
	Protection of soil and water	30097	30097	30097	30097	30097

	... 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	0	0	0	0	0
	... 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

of which others are construction of water ponds, infiltration Wells, Gully Plug nd check dam & retaining Dam constructions

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values	N/A	N/A	N/A	21930	21930
...of which public recreation	N/A	N/A	N/A	268	268
...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	Tier 1	Tier 1

Ecosystem services, cultural or spiritual values	Tier 2	Tier 1
--	--------	--------

Tier criteria

Category	Tier for status	Tier for reported trend
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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other
<ul style="list-style-type: none"> • Cultural or spiritual values • Public recreation • Spiritual or cultural services • Other 	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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : 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	production of clean water is the number of clean water that can be consumed by people. to observ how much of clean water consumed is from the number of households who abonement the clean water	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		

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	RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Ind.)	Extent	1985	Based on various remote sensing data interpretation
2	1982/1983, Forestland Use by Concensus, DGForestry, MoA	Extent	1982/1983	Based on map overlaying,
3	1990, Forestland Use Designation (Penunjukan Kawasan Hutan dan Perairan), MoF	Extent	1990/1992	Based on map overlaying,
4	Final report on Indonesia Forest Resource, 1996 (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data
5	Forestry Statistic book, Ministry of Forestry, 2000 (In Indonesia)	Extent	2000	Based on Landsat Imagery interpretation
6	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Based on interpretation of Landsat 7 ETM+, acquired in 1999/2000 with field checking
7	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF.	Land cover, extent	2002/2003	Based on interpretation of Landsat 7 ETM+, acquired in 2002/2003 with field checking
8	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2005/2006	Based on interpretation of Landsat 7 ETM+, acquired in 2005/2006 with field checking

9	Indonesia Land Cover Recalculation 2011. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2009/2010	Based on interpretation of Landsat 7 ETM+, acquired in 2009/2010 with field checking
---	---	--------------------	-----------	--

6.2.2 Classification and definitions

National class	Definition
Conservation forest (HK)	Forestland designated for conservation purposes. In this class include national park, nature reserved, wildlife reserved, other protected areas
Permanent Forestland (Kawasan Hutan Tetap)	Land with permanent designation of forest land use (HP+HPT+HL+HK).
N/A	N/A
N/A	N/A

6.2.3 Original data

See 4.2.3.

The original data in the following tables is calculated after distributing cloud cover proportionally into forested and not forested

1990 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	64,568	18,267
Protection forest (HL)	25,169	4,694
Conservation forest (HK)	17,001	2,671
Non forest land (APL)	16,040	39,215
Total	122,777	64,847

2000 data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	53,507	17,652
Protection forest (HL)	24,119	3,867
Conservation forest (HK)	15,881	2,253
Non forest land (APL)	9,519	37,501
Total	103,027	61,272

2003 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	51,843	16,391
Protection forest (HL)	23,127	3,774
Conservation forest (HK)	15,261	2,241
Non forest land (APL)	8,994	36,838
Total	99,225	59,244

2006 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested

Total Production forest (HP)	52,778	18,464
Protection forest (HL)	23,768	4,094
Conservation forest (HK)	15,767	2,475
Non forest land (APL)	8,411	39,254
Total	100,725	64,287

2009 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	20,631.3	16,092.9
Protection forest (HL)	24,806.3	6,769.7
Conservation forest (HK)	15,926.1	4,160.1
Non forest land (APL)	8,632.1	45,664.5
Total	69,996	72,687

2012 Data

National Class	Cover (1000 ha)	
	Forested	Not Forested
Total Production forest (HP)	18,029.3	12,133.7
Protection forest (HL)	24,406.7	5,964.2
Conservation forest (HK)	17,554.8	4,496
Non forest land (APL)	8,489.3	50,932.6

Total	68,480	73,527
--------------	--------	--------

Luas Kawasan Konservasi Se-Indonesia

Kawasan Hutan	2009 (Ha)	2011 (Ha)	2012 (Ha)
KSA/KPA	20,093.58	21,232.68	22,057.76

Kondisi Kawasan Hutan Permanen Tahun 2009 (Ribuan Ha)

No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7
	INDONESIA					
	- Hutan Primer	11,000.8	15,309.9	7,173.9	7,204.7	40,689.4
	- Hutan Sekunder	4,772.6	9,178.5	11,398.4	11,460.6	36,810.0
	- Hutan Tanaman *	152.7	318.0	407.0	1,966.0	2,843.7
	Total	15,926.173	24,806.335	18,979.248	20,631.319	80,343.075

Kondisi Kawasan Hutan Permanen Tahun 2011 (Ribuan Ha)

No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7
	INDONESIA					
	- Hutan Primer	11,062.950	15,305.934	7,116.588	7,191.433	40,676.905
	- Hutan Sekunder	4,771.479	9,140.264	11,301.825	11,192.664	36,406.232

	- Hutan Tanaman *	152.950	316.579	393.481	1,885.132	2,748.142
	Total	15,987.379	24,762.776	18,811.895	20,269.229	79,831.279

Kondisi Kawasan Hutan Permanen Tahun 2012 (Ribuan Ha)

No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7
	INDONESIA					
	- Hutan Primer	12,729.1	15,480.7	10,129.2	4,778.1	43,117.1
	- Hutan Sekunder	4,711.0	8,612.2	11,088.7	10,737.1	35,149.0
	- Hutan Tanaman *	114.7	313.8	491.5	2,514.1	3,434.1
	Total	17,554.795	24,406.675	21,709.435	18,029.289	81,700.195

6.3 Analysis and processing of national data

6.3.1 Adjustment

See 4.3.1.

Calibration has been conducted for 1990, 2000, 2003 and 2006 data.

1. 1990 Data

National Class	Cover (1000 ha)
	Forested
Total Production forest (HP)	62,342

Protection forest (HL)	24,301
Conservation forest (HK)	16,415
Non forest land (APL)	15,487
Total	118,545

B. 2000 data

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	51,628	
Protection forest (HL)	23,272	
Conservation forest (HK)	15,324	
Non forest land (APL)	9,185	
Total	99,409	

1. **2003 Data**

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	51884	
Protection forest (HL)	23127	
Conservation forest (HK)	15,261	
Non forest land (APL)	8,994	
Total	99,226	

1. **2006 Data**

National Class	Cover (1000 ha)	
	Forested	
Total Production forest (HP)	50,916	
Protection forest (HL)	22,930	
Conservation forest (HK)	15,211	
Non forest land (APL)	8,115	
Total	97,172	

Note: A Calibration factor for 1990 data is:0.96553

B Calibration factor for 2000 data is:0.96487

C Calibration factor for 2003 data is:0.99067

D Calibration factor for 2006 data is:0.96473

6.3.2 Estimation and forecasting

See 4.3.2.

Estimation is needed for 2005 and 2010

$$2005 \text{ data} = 2003 \text{ data} - [(2003 \text{ data} - 2006 \text{ data})/3]*2$$

$$2010 \text{ data} = 2006 \text{ data} - [(2003 \text{ data} - 2006 \text{ data})/3]*4$$

$$2012 \text{ data} = 2006 \text{ data} - [(2003 \text{ data} - 2006 \text{ data})/3]*6$$

National categories	1990	2000	2003	2006	2005	2010	2012
Production forest HP +HK+HPT	62342	51,628	51884	50916	51225	49680	48980

Protection forest HL	24301	23,272	23127	22930	22996	22667	22536
Conservation forest HK	16415	15,324	15261	15211	15228	15144	15111
Non forest land APL	15487	9,185	8994	8115	8408	6941	6357
Total forest	118545	99409	99226	97172	97857	94432	93064


6.3.3 Reclassification


See 4.3.3.

National Class	FRA 2015 Categories					
	Production	Protection for soil and water	Conservation of biodiversity	Social services	Multiple purposes	No or unknown function
Production forest (HP)	100					
Protection forest (HL)		100				
Conservation forest (HK)			100			
Non forestland						100

6.4 Data

Table 6

Categories	Forest area (000 hectares)				
	1990	2000	2005	2010	2015
 Conservation of biodiversity	19672	19649	19696	21232.7	21233

	Forest area within protected areas	29862	29861	29855	32211.2	32211
---	------------------------------------	-------	-------	-------	---------	-------

Tiers

Category	Tier for status	Tier for reported trend
Conservation of biodiversity	Tier 2	Tier 2
Forest area within protected areas	Tier 2	Tier 2

Tier criteria

Category	Tier for status	Tier for reported trend
<ul style="list-style-type: none"> Conservation of biodiversity Forests within protected areas 	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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other

6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Conservation of biodiversity	The conservation of biodiversity data is the conservation forest that includes national park, nature conservation land and game preserve.	N/A
Forest area within protected areas	Forest area within protected areas include protected forest (HL) and conservation forest (HK)	N/A

Other general comments to the table

Forest area under sustainable forest management and Forest area with management plan * base on statistic 2006 and remote sensing data. The forest based on forest function (conservation forest, production forest and protection forest) was derived from remote sensing data and designation forest land use map. Convertible Production Forest (HPK) is allocated for development of other sectors.

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	Report of National Park Baluran	Large area of occupation	2010; 2011;2012	The occupation is broader significantly in every time because this species will spread their seed for generation.
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
Invasive Species	This species brought from another ecosystem, especially outside of country which has extremely different ecosystem. The invasive species will change the enviromental condition in where the species planted, that give the negative impact to structure of diversity.
N/A	N/A
N/A	N/A
N/A	N/A

7.2.3 Original data

Location	Invasive Species	Occupation	Explanation

National Park Baluran	Acacia Nilotica	more than 50 % of Savana Area (around 50.000 ha)	Savana is habitat of Bos Javanicus, cervus timorensi and muntiacus muntjak and other species of endemic fauna.
-----------------------	-----------------	--	--

7.3 Analysis and processing of national data

7.3.1 Adjustment

--

7.3.2 Estimation and forecasting

--

7.3.3 Reclassification

--

7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	2010
Acacia nilotica	25	65
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
Total	25	65

Tiers

Category	Tier for status	Tier for reported trend
Invasive species	Tier 3	Tier 3

Tier Criteria

Category	Tier for status	Tier for reported trend
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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other

7.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Invasive species	This data is collected by National Parka Baluran, East Jawa, Indonesia	The number of growing increases vevry year

Other general comments to the table

Beucase of Acacia nilotica is invasive, the grazing area of Bos javanicus (Banteng) has been reduced significantly. every year government, c.q. National Parka Baluran management has allocated budget to eliminate this species, in another side the people who lives surrounding this national park maintain the species due to economic reasons, such as the seed of this species will be mixed to the traditional coffee that produced by the small/home industry of the people nearby.

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	Executive, Forest Strategic Data	Extent	2012	the report is published every year
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

Estimated Extent of Forest Fire by Forest Function in 2008 - 2012														
No.	Forest Function	Years												
		2008 (ha)	2009 (ha)	2010 (ha)	2011 (ha)	2012 (ha)								
1	Protection Forest	155	803	191,5	99,5	215								
2	Production Forest	592,52	245	19,5	184,95	1368,3								
3	Wildlife Sanctuary	631,02	1.449,33	57	1.091,29	148,73								
4	Nature Recreation Park	55,5	311,5	13,62	32,49	16,5								
5	National Park	5.338,79	4.589,78	3.213,5	996,36	4.325,75								
6	Grand Forest Park	2	1	-	25	5,25								
7	Forest Conservation	-	7	5	-	-								
8	Hunting Parks	15	100	-	161,5	19								
9	Forest Conservation	3,25	112	-	21	-								
T o t a l		6.793,08	7.619,41	3.500,12	2.612,09	6.098,53								
reference : Direktorat General of Forest Protection and Nature Conservation														
Note : (-) = No data														

No.	Forest Degradation based on Forest Types	Forest Area							%	Non Forest		TOTAL%		
		Permanent Forest					Production Forest for convert	T o t a l		T o t a l	%			
		Forest Conservation	Protection Forest	Limited Production Forest	Production Forest	T o t a l								
1	A. Primary Forest to Secondary Forest	96,6	173,9	167,6	551	989,2	239,4	1.228,6	91,6	34,6	2,6	1.263,2	94,2	
2	B. Primary Forest to other types of forest		0	0	0,9	0,09	0	0,9	0,1		0	0,9	0,1	
3	C. Secondary Forest to other types of forest	0,2	2,5	16,4	49,1	68,2	3,4	71,6	5,3	4,9	0,4	76,6	5,7	
	TOTAL	96,9	176,4	184,1	601	1.058,3	242,8	1.301,1	97	39,6	3	1.340,7	100	
Note: Calculation of Forest Degradation based on Citra Landsat 2005-2006 and 2009-2010 for Indonesia														
No	Deforestation at Forest Type	Forest Function							Non Forest	TOTAL				
		Permanent Forest					Production Forest for convert	T o t a l						
		Forest Conservation	Protection Forest	Limited Production Forest	Production Forest	T o t a l								
	A. Primary Forest	2253.5	4500.1	1213	8414.9	16381.5	1526	17907.4	2598.6	20506.0				
	B. Secondary Forest	22355.6	59676.5	104425.5	217077.2	403534.9	122835.2	526370.1	205685.2	732055.3				

C. Other Forest Types	727.1	3152.9	23869.5	30952.3	58701.8	7396.7	66098	13467.1	79565.6				
TOTAL	25336.2	67329.5	129508	256444.4	478618.1	131757.8	610376	221751	832126.9				
Reference: Digital Data from Citra Landsat 7 ETM+ 2005/2006 and 2009/2010. Directorate of Inventory and Monitoring Forest Resources (December 2011)													

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	124.5	N/A	238.2	N/A	103.7	N/A	370.3	N/A	169.2	N/A
	... of which forest area burned	23.2	N/A	46	N/A	8.7	N/A	72.2	N/A	35.8	N/A
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	128.2	N/A	175.5	N/A	32.4	N/A	105.5	N/A	136	2013


	... of which forest area burned	67.9	N/A	76.2	N/A	34.9	N/A	26.1	N/A	61.5	N/A
---	---------------------------------	------	-----	------	-----	------	-----	------	-----	------	-----

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
N/A	N/A	N/A	4.768
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	Tier 3	Tier 3
<ul style="list-style-type: none"> • Insects • Diseases • Severe weather events 	Tier 1	Tier 1

Tier criteria

Category	Tier for status	Tier for reported trend
----------	-----------------	-------------------------

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

8.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Burned area	FAO provided data based on global fire data from remote sensing	FAO provided data based on global fire data from remote sensing
Insects	N/A	N/A
Diseases	N/A	N/A
Severe weather events	N/A	N/A

Other general comments to the table

No data available for the insect or disease.

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	1301.1

Tiers

Category	Tier for reported trend
Reduction in canopy cover	Tier 2

Tier criteria

Category	Tier for reported trend
Reduction in canopy cover	Tier 3 : Remote sensing with ground truthing and/or Landsat imagery Tier 2 : Remote sensing using Modis (using pre-filled data provided by FAO) Tier 1 : 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	http://www.dephut.go.id	the number of policies; the number of workshop dealing with increasing welfare for community surrounding the forest;	N/A	There are some regulations developed by government (Ministry of Forestry) for community welfare ; i.a: 1). MoF decree No. P.37/ MenhutII/2008 about (Hkm) Hutan Kemasyarakatan jo MoF decree no P.13/ MenhutII/2010 (Berita Negara Republik Indonesia Tahun 2010 Nomor 163); 2). MoF decree P.49/Menhut-II/2008 tentang Hutan Desa (Berita Negara Republik Indonesia Tahun 2008 Nomor 39) Jo MoF decree P. 14/ Menhut-II/2010
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
----------------	------------

Policies of communities' participation in forestry	Legislation or regulation that published by Government that emphasizing participation of community surrounding the forest in Forest management for increasing their welfare
N/A	N/A
N/A	N/A
N/A	N/A

10.2.3 Original data

Government Policy dealing with Social Forestry		
No.	Regulation	Contents
1	SK Menteri No. 691/Kpts-II/1991	Peranan Hak Pengusahaan Hutan dalam Pembinaan Masyarakat di Dalam dan Sekitar Hutan
2	SK Menteri No. 622/Kpts-II/1995	Pedoman Hutan Kemasyarakatan
3	SK Menteri No. 677/Kpts-II/1998	Hutan Kemasyarakatan
4	SK Menteri No. 31/Kpts-II/2001	Penyelenggaraan Hutan Kemasyarakatan
5	UU No. 41 Tahun 1999	Kehutanan
6	PP No. 34 Tahun 2002	Tata Hutan dan Penyusunan Rencana Pengelolaan Hutan, Pemanfaatan Hutan dan Penggunaan Kawasan Hutan
7	P. 37/Menhut-II/2007	Hutan Kemasyarakatan
8	P. 13/Menhut-II/2010	Perubahan Kedua atas Peraturan Menteri Kehutanan Nomor P.37/Menhut-II/2007 Tentang Hutan Kemasyarakatan
Government Policy Dealing with Village Forest (Hutan Desa)		
No.	Regulation	Contents
1	P. 49/Menhut-II/2008	Hutan Desa
2	P. 14/Menhut-II/2010	Perubahan Atas Peraturan Menteri Nomor P.49/Menhut-II/2008 Tentang Hutan Desa
Government Policy dealing with Hutan Tanaman Rakyat		

No.	Regulations	Contents
1	P. 23/Menhut-II/2007	Tata Cara Permohonan Izin Usaha Pemanfaatan Hasil Hutan Kayu dalam Hutan Tanaman Rakyat dalam Hutan Tanaman
2	P.55/Menhut-II/2011	Tata Cara Permohonan Izin Usaha Pemanfaatan Hasil Hutan Kayu dalam Hutan Tanaman Rakyat dalam Hutan Tanaman
3	P.31/Menhut-II/2013	Perubahan Atas Peraturan Menteri Kehutanan Nomor P.55/Menhut-II/2011 tentang Tata Cara Permohonan Izin Usaha Pemanfaatan Hasil Hutan Kayu dalam Hutan Tanaman Rakyat dalam Hutan Tanaman

10.3 Data

Table 10

Category				
	National	Sub-national		
		Regional	Provincial/State	Local
Policies supporting sustainable forest management	yes	yes	yes	yes
... of which, in <u>publicly</u> owned forests	yes	yes	yes	yes
... of which, in <u>privately</u> owned forests	no	no	no	no
Legislation and regulations supporting sustainable forest management	yes	yes	yes	yes
... of which, in <u>publicly</u> owned forests	yes	yes	yes	yes
... of which, in <u>privately</u> owned forests	no	no	no	no

10.4 Comments

Variable / category	Comments related to data definitions etc
---------------------	--

Policies supporting sustainable forest management	<p>Forest area under the scheme of sustainable forest management includes HPH, HTI, HD, HTR, HKM. HPH is forest utilization rights/ forestry concession area that hold by public or private legal entities such as nationally owned enterprises (BUMN), privately owned enterprises (BUMS), regionally owned enterprises (BUMD) and cooperative. The Minister of Forestry issues licenses for specific forested areas and also for specific periods of time. HTI is Industrial plantation forest in production forest HTR is developed and managed by people surrounding the forest in which the land area could be a public forest or community forest . there is a Memorandum of Understanding (MOU) between community and government that people will managed forest sustainably, the government will support budget and other facility (marketing the products); HKM is a kind of forest managemnt that has aimes to empower community surrounding the forest. Community can use a certain public forest for their daily life with sustainable ways. HD is developed on public forest and managed by the village located nearby the forest. Criterias of Forest villages are forest protected and forest production wth no concession lisencc. HTR is developed and managed by people surrounding the forest in which the land area could be as public forest or community forest . there is a Memorandum of Understanding (MOU) between community and government that people will managed forest sustainably, the government will support budget and other facility (marketing the products);</p>
Legislation and regulations supporting sustainable forest management	<p>the main objectives of all policies dealing with forest and community are for sustainable forest management. recently many policies that deals with climate change set up in which the main purpose of those policies for sustainable forest management.</p>

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	Data Strategis Kehutanan	2012	data strategis published yearly
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A

Table 11

Is there a national platform that promotes or allows for stakeholder participation in forest policy development?	yes
--	-----

11.3 Comments

Category	Comments related to data definitions etc
National stakeholder platform	national stakeholders platform implemented in program and planning of Ministry of forestry, such as Hutan Rakyat, Hutan Kemasyarakatan and Hutan Desa

Other general comments

--

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	RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Ind.)	Extent	1985	Based on various remote sensing data interpretation
2	1982/1983, Forestland Use by Concensus, DGForestry, MoA	Extent	1982/1983	Based on map overlaying,
3	1990, Forestland Use Designation (Penunjukan Kawasan Hutan dan Perairan), MoF	Extent	1990/1992	Based on map overlaying,
4	Final report on Indonesia Forest Resource, 1996 (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data
5	Forestry Statistic book, Ministry of Forestry, 2000 (In Indonesia)	Extent	2000	Based on Landsat Imagery interpretation
6	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Based on interpretation of Landsat 7 ETM+, acquired in 1999/2000 with field checking
7	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF.	Land cover, extent	2002/2003	Based on interpretation of Landsat 7 ETM+, acquired in 2002/2003 with field checking
8	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2005/2006	Based on interpretation of Landsat 7 ETM+, acquired in 2005/2006 with field checking

9	Indonesia Land Cover Recalculation 2011. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2009/2010	Based on interpretation of Landsat 7 ETM+, acquired in 2009/2010 with field checking
---	---	--------------------	-----------	--

12.2.2 Classification and definitions

National class	Definition
Permanent Forestland (Kawasan Hutan Tetap)	Land with permanent designation of forest land use (HP+HPT+HL+HK).
N/A	N/A
N/A	N/A
N/A	N/A

12.2.3 Original data

Kondisi Hutan Permanen Tahun 2009 (Ribuan Ha)						
No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7
	INDONESIA					
	- Hutan Primer	11,000.8	15,309.9	7,173.9	7,204.7	40,689.4
	- Hutan Sekunder	4,772.6	9,178.5	11,398.4	11,460.6	36,810.0
	- Hutan Tanaman *	152.7	318.0	407.0	1,966.0	2,843.7
	Total	15,926.173	24,806.335	18,979.248	20,631.319	80,343.075
Kondisi Hutan Permanen Tahun 2011 (Ribuan Ha)						
No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7

	INDONESIA					
	- Hutan Primer	11,062.950	15,305.934	7,116.588	7,191.433	40,676.905
	- Hutan Sekunder	4,771.479	9,140.264	11,301.825	11,192.664	36,406.232
	- Hutan Tanaman *	152.950	316.579	393.481	1,885.132	2,748.142
	Total	15,987.379	24,762.776	18,811.895	20,269.229	79,831.279
Kondisi Hutan Permanen Tahun 2012 (Ribuan Ha)						
No	Forest Type	Permanent Forest				
		KSA-KPA	HL	HPT	HP	Jumlah
1	2	3	4	5	6	7
	INDONESIA					
	- Hutan Primer	12,729.1	15,480.7	10,129.2	4,778.1	43,117.1
	- Hutan Sekunder	4,711.0	8,612.2	11,088.7	10,737.1	35,149.0
	- Hutan Tanaman *	114.7	313.8	491.5	2,514.1	3,434.1
	Total	17,554.795	24,406.675	21,709.435	18,029.289	81,700.195

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	79831.279
	... of which permanent forest estate	1595.1

Tiers

Category	Tier for status
Forest area intended to be in permanent forest land use	Tier 3
Permanent forest estate	Tier 3

Tier Criteria

Category	Tier for status
Forest area intended to be in permanent forest land use	Tier 3 : National or sub-national land use plans strategy documents or other reports within the past 10 years Tier 2 : National or sub-national land use plans strategy documents or other reports within the past 20 years Tier 1 : Other
Permanent forest estate	Tier 3 : National or sub-national land use plans strategy documents or other reports within the past 10 years Tier 2 : National or sub-national land use plans strategy documents or other reports within the past 20 years Tier 1 : 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	Area of permanent forest estate is the land that designated for forest land based on the forest function that include production forest (HP and HPT), conservation forest (HK) and protected forest (HL).

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	Report of Forest Degradation	imagery	2010; 2011; 2012	monitoring the change of degradation each year
2	Report of Deforestation	imagery ground check	2010; 2011; 2012	monitoring the change of deforestation each year
3	Report of Balance of Forest Resources	the difference number of landuse change ; the difference number of wood stock in such area	2010; 2011; 2012	monitoring the change of some variables of forest
4	Moratorium of bussines at the primer (public) forest and peat (public) forest	large of the peat and primer forest	2011; 2012; 2013	monitoring of decreasing and increasing the number of primer and Peat Forest' area
5	Calculation of forest degradation in indonesia 2006-2009	imagery ground check	2006-2009	monitoring the change of degradation each year. Based on interpretation of Landsat 7 ETM+, acquired in 2005/2006 and 2009/2010 with field checking

13.2.2 Classification and definitions

National class	Definition
Forest monitoring	is an activity that combined between ground truth and imagery
forest deforestation	it is calculated from the change of forest cover yearl
forest degradation	it is difficult to account the variables of degradation

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	100	2014	no	yes	yes	yes	yes	yes
Other field assessments	N/A	2014	yes	yes	yes	no	no	no
Updates to other sources	N/A	N/A	no	no	no	no	no	no
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	yes
2 Periodic national state of the forest report	yes
3 Other (please document)	no
4 None	no

Other type of forest reporting

no other type of reporting about forest

13.4 Comments

Category	Comments
deforestation and degradation	all data of deforestation and degradation are calculated from the changing of forest cover and published yearly . especially for degradation must have ground reseach for each type activity, type of forest and type of forest cover, so that the criterion and indicators of drivers are able to categorize.
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	RePProT data (Forestry Planning Agency Statistic Baplan 2000) for 1990 data for Java (In Ind.)	Extent	1985	Based on various remote sensing data interpretation
2	1982/1983, Forestland Use by Concensus, DGForestry, MoA	Extent	1982/1983	Based on map overlaying,
3	1990, Forestland Use Designation (Penunjukan Kawasan Hutan dan Perairan), MoF	Extent	1990/1992	Based on map overlaying,
4	Final report on Indonesia Forest Resource, 1996 (In Indonesian)	Extent	1986 – 1991 mostly 1989	Based on Landsat MSS interpretation data
5	Forestry Statistic book, Ministry of Forestry, 2000 (In Indonesia)	Extent	2000	Based on Landsat Imagery interpretation
6	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Based on interpretation of Landsat 7 ETM+, acquired in 1999/2000 with field checking
7	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF.	Land cover, extent	2002/2003	Based on interpretation of Landsat 7 ETM+, acquired in 2002/2003 with field checking

8	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2005/2006	Based on interpretation of Landsat 7 ETM+, acquired in 2005/2006 with field checking
9	Indonesia Land Cover Recalculation 2011. (In Indonesia) Forestry Planning Agency, Mo F.	Land cover, extent	2009/2010	Based on interpretation of Landsat 7 ETM+, acquired in 2009/2010 with field checking

14.3 Data

Table 14a

Forest plan type	Forest area 2010 (000 ha)
Forest area with management plan	90110.667
... of which for production	49360.511
... of which for conservation	40750.156

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	25
---	----

Tiers

Category	Tier for status
Forest area with management plan	Tier 2
Percent of area under forest management plan that is monitored annually	Tier 3

Tier criteria

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

14.4 Comments

Category	Comments
Forest area with management plan	Forest area with management plan includes production forest (HPH and HTI) and some conservation forests which are categorized as National Parks.
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	no
2. Operations phase	yes
3. Review of operations	yes

Tiers

Category	Tier for status
Type of stakeholder inputs	Tier 2

Tier criteria

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

15.2 Comments

Category	Comments
stakeholder inputs	stakeholder inputs usually happened in the field level. for the phase of planning is authorized by government, included the budget for gathering inputs from other stakeholders
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	296.5	91.7	91.7	92.3	276.5
	PEFC	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
		2007	2008	2009	2010	2011	2012	
	FSC	739.4	708	1697.3	1378.3	922.2	1252.7	
	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
	SVLK	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	
	SVLK	0	0	0	0	0	3128.464	
		0	0	0	0	0	0	
		0	0	0	0	0	0	

Tier criteria

Category	Tier for status
International 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
Domestic 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
International forest management certification	Tier 3
Domestic forest management certification	Tier 3

16.3 Comments

Category	Comments related to data definitions etc
Certified forest area using an international forest management certification scheme	international certification (VLK= verifikasi legalitas kayu) is just declared between Indonesia and EU. this certification is for combatting illegal logging that illegally deliver to other countries
Domestic forest management certification	N/A

Other general comments

--

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"> • Goods : roundwood; sawnwood; biomass; woodbased panels; pulp and paper and non-wood forest products. • Services : 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.
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	Secretariat General MoF. 2005. Financial Report 2004	value	2004	Government revenue and expenditure budget on 2004
2	Secretariat General MoF. 2006. Financial Report 2005	value	2005	2005 Audited Financial Report
3	Secretariat General MoF. 2006. Financial Report 2011; Data Strategis Kehutanan 2012	value	2012	2010 Audited Financial Report
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	N/A	3248817024	3178638044331
Public expenditure on forestry	N/A	959875419	3290853023488
	2000	2005	2010

Name of Local Currency	rupiah	N/A	N/A
------------------------	--------	-----	-----

17.4 Comments

Category	Comments related to data definitions etc
Forest revenue	Available data only for 2004 and 2005 years The value only shows the income received by MoF. The additional incomes resulted by wood processing and exports are not included here.
Public expenditure on forestry	Available data only for 2004 and 2005 years and 2012
Other general comments	N/A

Other general comments

--

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	Forestry Statistic Book, 1991, Ministry of Forestry	Extent	1990/1991	Based on Forest Land Use by Consensus map and Community Forest area
2	Forestry Statistic Book, 2002, Ministry of Forestry	Extent	2002	Based on Forest Land Use by Consensus map and Community Forest area
3	DG of Land Rehabilitation and Social Forestry Data, Ministry of Forestry	Extent	1990 – 2004	N/A
4	Indonesia Land Cover Recalculation 2003. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	1999/2000	Information of land cover based on interpretation of Landsat 7 ETM+, acquired at 1999/2000 with field checking
5	Indonesia Land Cover Recalculation 2005. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	2002/2003	Information of land cover based on interpretation of Landsat 7 ETM+, acquired at 2002/2003 with field checking
6	Indonesia Land Cover Recalculation 2008. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	2005/2006	Information of land cover based on interpretation of Landsat 7 ETM+ that acquired at 2005/2006 with field sample plot
7	2008, DG of Land Rehabilitation and Social Forestry. Statistic of Land Rehabilitation and Social Forestry. MoF.	Extent	1980-2007	This data based on the terrestrial survey by DG of Rehabilitation and Social Forestry.
8	Indonesia Land Cover Recalculation 2011. (In Indonesia) Forestry Planning Agency, MoF	Land cover, extent	2009/2010	Information of land cover based on interpretation of Landsat 7 ETM+ that acquired at 2009/2010 with field sample plot

18.2.2 Classification and definitions

National class	Definition
Public forest	Land owned by the State (national, state and regional governments) or government-owned institutions or corporations or other public bodies including cities, municipalities, villages and communes.
People forest (Hutan rakyat)	People forest is forest plantation on private land or non forestland, mainly planted with fast growing hardwood species. It's different with agro forestry.

Village forest (Hutan Desa)	Village forest is the state forest is managed by the village and utilized for the welfare of the village and yet burdened permission/rights
Forest people plants (Hutan tanaman rakyat (HTR))	Forest people plants is forest plants on forest production built by individuals or cooperatives to increase the potential and quality of forests production by applying silviculture in order to ensure the sustainability of forest resources

18.2.3 Original data

In Indonesia all forest land is owned by government. Some people grow forest in their own land, called as community forest (hutan rakyat; Ind).

Forestownership

National Class	Area (in 1000 Ha)			
	1990	2000	2005	2010
Forestland	127,807	127,716	127,720	127,740
Forested	103,058	90,224	89,449	87,491
Shrub bush	na	14,556	14,703	13,775
Not Forested	24,748	22,937	23,568	26,475
Non Forestland	53,350	53,441	53,437	53,417
Forested	15,487	9,185	8,408	6,942
Shrub bush	Na	8,071	7,503	7,228
Not Forested	37,863	36,184	37,526	39,246
Total land area	181,157	181,157	181,157	181,157

National categories	Area (in 1000 Ha)			
	1990	2000	2005	2010

Production forest (HP)	62,342	51,628	51,226	49,679
<i>Communities (HKM) inside HP</i>	<i>0.0</i>	<i>24.6</i>	<i>3.3</i>	
Protection forest (HL)	24,301	23,272	22,996	22,667
Conservation forest (HK)	16,415	15,324	15,228	15,145
Forested on Non Forestland (APL)	15,487	9,185	8,408	6,942
<i>Individuals (HR) inside APL</i>	<i>59.6</i>	<i>49.8</i>	<i>32.2</i>	
TotalForest	118,545	99,409	97,857	94,432

18.3 Analysis and processing of national data

18.3.1 Adjustment

No calibration is needed for this table.

18.3.2 Estimation and forecasting

No estimation and forecasting is needed for this table.

All “non forestland” which is forested is privately owned and all the “forestland” is publicly owned.

For table 18b, all Protection Forest (HL) and all Conservation Forest (HK) are managed by the Public Administration. The remaining Forestland is classified as production Forest (HP) with some sub categories. Some Production Forests are managed by communities (HKM or social forestry), but mostly by private corporations and institutions, meanwhile people forest (HR) is owned by individuals









18.3.3 Reclassification

National Categories	Percentage allocation to FRA 2010 Categories		
	Private ownership	Public ownership	Other ownership

Forested Forestland		100	
Forested Non Forestland	100		

18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	2000	2005	2010
	Public ownership	103058	86421.9724324096		
	... of which owned by the state at national scale	103058	82773.6	90052.2	91179.3
	... of which owned by the state at the sub-national government scale	0	0	0	0
	Private ownership	15487	12987.0275675904	12784.270606099	12336.8204816736
	... of which owned by individuals	0	0	0	0
	... of which owned by private business entities and institutions	0	0	0	0
	... of which owned by local, tribal and indigenous communities	0	0	0	0
	Unknown ownership	0	0	0	0
TOTAL		118545.00	99409.00	97857.00	94432.00

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	Tier 3 : Estimate based on repeated compatible tiers 3 (tier for status) Tier 2 : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) Tier 1 : Other

Table 18b - Holder of management rights of public forests

Categories	Forest area (000 hectares)			
	1990	2000	2005	2010
Public Administration	56203	40330.2	47234.7	91179.3
Individuals	0	49.8	32.2	0
Private companies	62342	51554	51190	8408
Communities	0	24.6	3.3	0
Other	0	0	0	0
TOTAL	118545.00	91958.60	98460.20	99587.30

Category	Tier for reported trend	Tier for status
Public Administration	Tier 2	Tier 2
Individuals	Tier 3	Tier 3
Private companies	Tier 3	Tier 3
Communities	Tier 2	Tier 2
Other	Tier 1	Tier 1

18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	In Indonesia all forest land is owned by government, and management right could be given to local communities, private corporations and institutions.	The figure shows the trend slightly decreased and heavily depend on the policy of government
Private ownership	People grow trees on their own land, particularly in Java	N/A
Unknown ownership	N/A	N/A

Management rights	Management right is mainly given for forest concession or forest plantation	N/A
-------------------	---	-----

Other general comments to the table

Public administration are covering the conservation forest, protection forest and production forest.

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	GOI. 2000. DG of Forest Production Development. MoF (in Indonesian)	2000	Will be used as 2000 data for company employment	N/A
2	GOI. 2005. DG of Forest Production Development. MoF(in Indonesian)	2005	Will be used as 2005 data for company employment	N/A
3	GOI. 2000. DG of Protection and Nature Conservation Statistic	2000	Will be used as 2000 data for company employment	N/A
4	GOI. 2005. DG of Forest Protection and Nature Conservation Statistic	2005	Will be used as 2005 data for company employment	N/A
5	Statistic of Timber Culture Estate	2002	Will be used as 2000 data for company employment	N/A
6	Statistic of Forest Concession Estate	2005	Will be used as 2005 data for company employment	N/A
7	Data Startegis Kehutanan	2012	will be used as 2012 data for government employment who work in Ministry of Forestry (in Jakarta and the fields)	N/A

19.2.2 Classification and definitions

National class	Definition
Company employment	Persons who work for Forest Production (Forest Concessionaires or Forest Plantation). It can be permanent/certain period base on the skill
National Park employment	Persons who work for National Park (Forest Protection or Forest Conservation)

Government employment	Person who work at government for Ministry of Forestry (jakarta and fields)
N/A	N/A

19.2.3 Original data

National class	Number of persons	
	2000	2005
Company employment	133,576	54,140
Temporary employment	na	na
National Park employment	2,826	3,270
Total	136,140	57,410

Number of employment in the above table are permanent workers involved in wood production, i.e., Forest Concessionaires or Forest Plantation) excluding Java (no data is available), as well as government officials who work in the National Park. For certain activities, concessions, often hire temporary workers, but the data is not yet available. The data are available for years 2000 and 2005.

National Class



Place	2008		2009		2010		2011		2012	
	F	M	F	M	F	M	F	M	F	M
Centre (Jakarta)	1,060	2,331	1056	2343	1166	2366	1198	2347	1203	2261
Technical Management Unit	1,874	11,027	2,108	11,470	2,51	11,699	2,664	11,554	2,729	10,857

Calibration

No calibration is required

19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	2000	2005	2010
	Employment in forestry	N/A	152.4	73.7	74.7
	... of which female	N/A	2.9	2.9	3.7

19.4 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Employment in forestry	The employees recorded in this table are only the ones working for wood production from natural forest and plantation forest concessionaires	Compared with 2000 period, employment in primary production of goods in 2005 was decreased as critically concurrent with the decrease of the number of the companies.

Other general comments to the table

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)	44952100	Indonesian Rupiah	2009

20.3 Comments

Category	Comments
Gross value added from forestry (at basic prices)	N/A

Other general comments

--

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	P. 49/Menhut-II/2011 about RKTN (Rencana Kehutanan Tingkat Nasional) 2011 - 2030. (Minister Decree of Forestry no. 49/Menhut-II/2009 about Forest Planning at National Level 2011-2030)	Forest Planning	2011	this book is as reference of Forestry Planning for the next 5 years, 2015-2019, at new cabinet
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	112340

Table 21b

Category	Forest area (000 ha)
	2013
Forests earmarked for conversion	3269.83812

21.4 Comments

Category	Comments
Government target/aspiration for forest area	government target/aspiration for forest area is policy to accomodate the development of economic that need land, or accomodate settlements
Forests earmarked for conversion	forest earmarked for conversion usually for settelemet that develop inside of forest as well as other purposes such as for insfrastructure, economic acceleration

Other general comments

--