

GLOBAL FOREST RESOURCES ASSESSMENT 2015

COUNTRY REPORT

Japan

Rome, 2014

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

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

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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
HATTORI Koji	Forestry Agency of Japan	koji_hattori@nm.maff.go.jp	N/A
OKABAYASHI Masato	Forestry Agency of Japan	masato_okabayashi@nm.maff.go.jp	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Introductory Text

Place an introductory text on the content of this report

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Desk Study?

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

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

Documents for this question:

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

1.1 Categories and definitions

Category	Definition
Forest	Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.
Other wooded land	Land not classified as "Forest" spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of 5-10 percent or trees able to reach these thresholds ; or with a combined cover of shrubs bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.
Other land	All land that is not classified as "Forest" or "Other wooded land".
...of which with tree cover (<i>sub-category</i>)	Land considered as "Other land", that is predominantly agricultural or urban lands use and has patches of tree cover that span more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity. It includes bothe forest and non-forest tree species.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.
Forest expansion	Expansion of forest on land that, until then, was not defined as forest.
...of which afforestation (<i>sub-category</i>)	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not defined as forest.
...of which natural expansion of forest (<i>sub- category</i>)	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).
Deforestation	The conversion of forest to other land use or the longterm reduction of the tree canopy cover below the minimum 10 percent threshold.
...of which human induced (<i>sub-category</i>)	Human induced conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold.
Reforestation	Natural regeneration or re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.
...of which artificial reforestation (<i>sub- category</i>)	Re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.

1.2 National data

1.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments

1	Forestry Agency and Prefectural Governments “National Forest Inventory (NFI)”	Forest, Forest with standing trees, Forest without standing trees, Cut-over land, Under-stocked land, Bamboo forest	1990 1995 2002 2007 2012	As of 31 March of each year. Data do not include figures for the Northern Territories (Habomai Islands, Shikotan Island, Kunashiri Island and Etorofu Island).
2	FAOSTAT	Area of inland water bodies	1990 2000 2005 2010	N/A
3	FAOSTAT	Total area of the country	1990 2000 2005 2010	N/A
4	Forestry Agency “Handbook of Forestry Statistics”	Area of reforestation (of which on previously planted forest, of which on previously natural forest)	1988 -1992, 1998 -2010	N/A

1.2.2 Classification and definitions

National class	Definition
Forest	Land on which trees and/or bamboo grow collectively, together with those trees and bamboo, or any other land that are provided for collective growth of trees and/or bamboo. Lands that are utilized mainly for agriculture, residential use, or other similar purposes, are not included. Forests are classified into the following two categories: (1) National forest: Forest where land is owned by the national government, or where land is owned by other party but the national government implements silviculture under a contract which defines the share of profit between the national government and landowner(s). (2) Private forest: Forest other than national forest, including forests that are owned publicly such as by local/prefectural governments but not by the national government. Lands with trees and/or bamboo are not included in forests if: a) Owned and managed by national government agencies other than the Forestry Agency (since the land is not provided mainly for growing trees and/or bamboo) b) Spanning not more than 0.3 hectares and isolated from adjacent forests
Forest with standing trees	Forest that has canopy cover of 30 percent or higher. Young stands with the degree of stocking of 0.3 or higher are included.
Bamboo forest	Forest that does not fall under “forest with standing tree” and is dominated by bamboo (excluding bamboo grass).
Forest without standing trees	Forest that does not fall under “forest with standing tree” or “bamboo forest”. This category includes areas that are temporarily under-stocked and are expected to regenerate.
Cut-over land	Forest without standing trees that has gone through final harvest.
Under-stocked land	Forest without standing trees that does not fall under “Cut-over land”.
Reforestation	Same as Reforestation as per FAO’s definition.
... of which on previously planted forest	Establishment of planted forest after harvesting planted forest, including planting after thinning.

... of which on previously natural forest etc	Replacement of broadleaved forests, natural forests and wilderness, which were sources for firewood and charcoal, with planted forests of conifer trees that grow faster and provide highly useful wood.
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1.2.3 Original data

Categories		Area (1000 hectares)						
		1990	1995	2000	2002	2007	2009	2012
Forest		24,950	24,898		24,868	24,979		24,958
	Forest with standing trees	23,643	23,577		23,506	23,637		23,618
	Bamboo forest	149	150		154	156		159
	Forest without standing trees	1,159	1,171		1,208	1,185		1,181
	Cut-over land	n.a.	131		110	89		100
	Under-stocked land	1) 1,159	1,040		1,098	1,096		1,082
Inland water bodies		1,320		1,330			1,345	
Total country area		37,780		37,780			37,795	37,795

Total may not coincide with the aggregate of individual figures because of the rounding.

Notes: For 1990, data can not be divided between “Cut-over land” and “Under-stocked land”. Therefore, the whole figure for “Forest without standing trees” is included in “Under-stocked land”.

Forest expansion, reforestation (Unit: ha)

	88	89	90	91	92	98	99	00	01	02
Reforestation Total	78,839	72,009	67,139	58,256	54,006	44,818	38,482	35,908	32,457	30,089

... of which on previously planted forest	24,630	24,053	24,196	22,150	22,235	22,832	20,057	19,384	18,036	16,218
... of which on previously natural forest etc	54,209	47,956	42,943	36,106	31,771	21,986	18,425	16,524	14,421	13,871

	03	04	05	06	07	08	09	10
Reforestation Total	28,898	28,466	28,576	28,515	33,784	31,917	30,054	24,128
... of which on previously planted forest	16,570	16,984	18,701	19,993	25,093	8,125	9,413	6,105
... of which on previously natural forest etc	12,328	11,482	9,875	8,522	8,691	23,792	20,641	18,023

1.3 Analysis and processing of national data

1.3.1 Adjustment

Not necessary.

1.3.2 Estimation and forecasting

Forest area

(1) Forest area for 2000 was estimated by a simple proportional interpolation of data for 1995 and 2002, i.e.,

$$E_{2000} = D_{1995} \times 2 / 7 + D_{2002} \times 5 / 7$$

where

E_{2000} = Estimation for year 2000

D_{1995} , D_{2002} = Data for years 1995 and 2002

(2) Forest area for 2005 and 2010 was estimated by a same simple proportional interpolation of data for 2002, 2007, and 2012.

(3) Forest area for 2015 was forecasted to be the same as the figure of year 2012 since the Basic Plan on Forest and Forestry (formulated in 2011) stipulates that the forest area of Japan shall be maintained at 2010 level for the foreseeable future.

(4) Total area of the country and the area of Inland water bodies for 2015 were forecasted to be the same as the figures of year 2009.

Forest expansion, reforestation

(1) For figures for 1990, 2000 and 2005, five-year average of data for 1988 to 1992, 1998 to 2002 and 2003 to 2007, respectively, were calculated. For figures for 2010, three-year average of data for 2008 to 2010 was calculated.

(2) Japan's planted forests consist mostly of native species. Although there are some planted forests with introduced species, no data are available on planted forests with introduced species.

1.3.3 Reclassification

Forest area

FRA 2015 Categories	National Reporting Classes
Forest	“Forest” as per Japan’s definition
Other wooded land	No figures are presented because of the lack of data
Other land	“TOTAL” minus “Forest” and “Inland water bodies”

...of which with tree cover	No figures are presented because of the lack of data
Inland water bodies	Same as FAO's definition
TOTAL	Same as FAO's definition
Forest expansion, reforestation	
FRA 2015 Categories	National Reporting Classes
Forest expansion	No data available
...of which afforestation	No data available
...of which natural expansion of forest	No data available
Deforestation	No data available
...of which human induced	No data available
Reforestation	“Reforestation Total” of Japanese data
...of which artificial	No data available

1.4 Data

Table 1a

Categories		Area (000 hectares)				
		1990	2000	2005	2010	2015
	Forest	24950	24876	24935	24966	24958
	Other wooded land	0	0	0	0	0
	Other land	11510	11574	11515	11484	11492
	... of which with tree cover	N/A	N/A	N/A	N/A	N/A
	Inland water bodies	1320	1330	1341	1345	1345
	TOTAL	37780.00	37780.00	37791.00	37795.00	37795.00

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
CFRQ	Forest expansion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which afforestation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which natural expansion of forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Deforestation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which human induced	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Reforestation	67	36	29	24	N/A	N/A	N/A	N/A
CFRQ	... of which artificial	67	36	29	24	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 3	Tier 3
Forest expansion	N/A	N/A
Deforestation	N/A	N/A
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 	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 Tier 2 : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 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

1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	Forest does not include those in the Northern Territories.	N/A

Other wooded land	Available data do not allow for estimating the area of other wooded land. Any areas of other wooded land are included either under forest or under other land.	N/A
Other land	N/A	N/A
Other land with tree cover	N/A	N/A
Inland water bodies	N/A	N/A
Forest expansion	N/A	N/A
Deforestation	N/A	N/A
Reforestation	N/A	N/A

Other general comments to the table

Data in FAOSTAT does not specify whether the figure of country area includes the Northern Territories or not. Presumably it does since the figure is close to that of Japan's national statistics including the Northern Territories. Other land and Inland water bodies therefore seem to include those in the Northern Territories. In addition, figures for Other land would include those of Forest in the Northern Territories. For this reason, the rate of forest cover in Japan would not be correct if calculated by dividing Forest area by TOTAL area in this table.

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	Forestry Agency “Survey on the State of Forest Resources”	Planted forest, Natural forest, Bamboo forest, Forest without standing trees	1990 1995 2002 2007 2012	As of 31 March of each year Data do not include figures for the Northern Territories (Habomai Islands, Shikotan Island, Kunashiri Island and Etorofu Island)
2	Forestry Agency “National Forest Inventory”	Composition of forest ecosystem types	2004-2008	N/A

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

2.2.2 Classification and definitions

National class	Definition
Planted forest	Forest with standing trees (refer to 1.2.2 for definition) established through planting or seeding, with the proportion of standing trees of target species for such planting/seeding consisting 50 percent or higher.
Natural forest	Forest with standing trees other than planted forest
Bamboo forest	Refer to 1.2.2
Forest without standing trees	Refer to 1.2.2

2.2.3 Original data

	Area (1000 hectares)				
	1990	1995	2002	2007	2012
Planted forest	10,287	10,356	10,321	10,326	10,270
Natural forest of 81 years or older	3,764	3,517	4,269	4,568	4,905
Natural forest of 80 years or younger	9,591	9,704	8,916	8,744	8,443
Bamboo forest	149	150	154	156	159
Forest without standing trees	1,159	1,171	1,208	1,185	1,181
Total	24,950	24,898	24,868	24,979	24,958

Major forest ecosystem types

According to the NFI Japan, the major forest ecosystem types found in Japan are “Sugi (Cryptomeria Japonica) plantation” and “mixed broad-leaved forest” and “Deciduous broad-leaved species other than beech and oak” each of which occupies 18%, 12% and 12% of total forest area respectively.

Forest ecosystem type	Ratio (%)
Japanese Cedar (Planted)	18
Japanese Cedar (Natural)	3
Japanese cypress (Planted)	10
Japanese cypress(Natural)	2
Yezo spruce	1
Sakhaline fir (Planted)	3
Sakhaline fir (Natural)	3
Japanese larch (Planted)	3
Japanese larch (Natural)	0
Japanese pine (Planted)	2
Japanese pine (Natural)	3
Subalpine coniferous sp.	1
Other coniferous sp.	1
Mixed coniferous sp.	0
Japanese beech	4
Oak spp.	10
Deciduous broad-leaved spp. other than beech and oak	12
Evergreen oak	3
Other evergreen spp.	1
Mixed broad-leaved spp.	12
Mixed broad-leaved and coniferous spp.	3
Ohters	2

2.3 Analysis and processing of national data

2.3.1 Adjustment

Not necessary.

2.3.2 Estimation and forecasting

Estimation for 2000, 2005, 2010 and 2015 was done with the same method used for the Question 1 as described in 1.3.2 (1), (2), (3), and (4).

2.3.3 Reclassification

Table 4a

FRA 2015 Categories	National Reporting Classes
Primary forest	Natural forest of 81 years or older
Other naturally regenerated forest	Natural forest of 80 years or younger Bamboo forest Forest without standing trees
...of which of introduced species	No data available
...of which naturalized	No data available
Planted forest	Planted forest
... of which of introduced species	No data available

2.4 Data

Table 2a

Categories	Forest area (000 hectares)
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		1990	2000	2005	2010	2015
	Primary forest	3764	4054	4449	4770	4905
	Other naturally regenerated forest	10899	10492	10162	9904	9783
	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
	... of which naturalized	N/A	N/A	N/A	N/A	N/A
	Planted forest	10287	10331	10324	10292	10270
	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
TOTAL		24950.00	24877.00	24935.00	24966.00	24958.00

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

Table 2c

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

Tiers

Category	Tier for status	Tier for reported trend
Primary forest	Tier 3	Tier 3
Other naturally regenerated forest	Tier 3	Tier 3
Planted forest	Tier 3	Tier 3
Mangroves	N/A	N/A

Tier Criteria

Category	Tier for status	Tier for reported trend
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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>
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2.5 Comments

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	N/A	Natural forest over 81 years old is used for this category, and the natural forests have been increasing in Japan.
Other naturally regenerating forest	N/A	N/A
Planted forest	Japan's planted forests consist mostly of native species. Although there are some forests with introduced species, no data are available.	N/A
Mangroves	A small area of mangroves exist in Okinawa region, however, there is no accurate information on the area.	N/A

Other general comments to the table

N/A

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

Documents for this question:

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

3.1 Categories and definitions

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

3.2 National data

3.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency "Survey on the State of Forest Resources"	Growing stock	1990 1995 2002 2007 2012	As of 31 March of each year Data do not include figures for the Northern Territories (Habomai Islands, Shikotan Island, Kunashiri Island and Etorofu Island)
2	National Greenhouse Gas Inventory Report of Japan	BEF, Wood density	2009	N/A
3	Basic Plan on Forest and Forestry	Annual increment	2000 2005 2010	N/A

4	N/A	N/A	N/A	N/A
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3.2.2 Classification and definitions

National class	Definition
Growing stock (of standing trees)	Volume of stems, over bark, of all standing trees more than 3 cm in diameter at breast height, above ground up to the end of the stem, but not to include branches. Volume of bamboo stand is not included.
Biomass stock of forest	Biomass stock of trunk, branches and roots of standing trees in the forest (in metric ton), which can be estimated as: Growing stock of forest (planted and natural) (m ³) x Biomass expansion factor x (1 + ratio of below-ground parts against above-ground parts) x Wood density (t / m ³ dry matter) Biomass expansion factor is a ratio of the total volume of trunk, branches and leaves against trunk volume. Wood density is the weight of biomass in 1 cubic meter of wood in dry material.
Carbon stock of forest	Estimated as: Biomass stock of forest (t) x Carbon content of dry matter
N/A	N/A

3.2.3 Original data

Growing stock of forest						
	Volume (million cubic meters over bark)					
	1990	1995	2002	2007	2012	
Growing stock	3,113	3,458	4,013	4,419	4888	

Total may not coincide with the aggregate of individual figures because of the rounding.

Growing stock of the 10 most common species							
Name of Tree Species			Growing Stock in Forests				
			(million cubic meters)				
Japanese common name	Scientific name	English common name	1990	1995	2002	2007	2012

Sugi	<i>Cryptomeria japonica</i>	Cedar	n.a	n.a	1 343	1 518	1 758
Hinoki	<i>Chamaecyparis obtusa</i>	Cypress	n.a	n.a	500	579	676
Matsu group	<i>Pinus spp.</i>	Pine (Japanese Red Pine, Japanese Black Pine, etc)	n.a	n.a	367	400	406
Karamatsu	<i>Larix#aempferi</i>	Larch	n.a	n.a	201	213	223
Todomatsu	<i>Abies sachalinensis</i>	Sakhalin Fir	n.a	n.a	161	180	207
Nara group (excluding Kunugi)	<i>Quercus dentata</i> , <i>Q.mongolica</i> , <i>Q. serrata</i> , etc.	Konara Oak, Mongolian Oak, Daimyo Oak, etc	n.a	n.a	89	74	47
Yezomatsu and Tohi	<i>Picea jezoensis</i>	Hondo Spruce, Yezo Spruce	n.a	n.a	56	43	58
Kunugi	<i>Quercus acutissima</i>	Chestnut Oak	n.a	n.a	16	17	19
Other broadleaves		Other broadleaves	1 097	1 159	1 165	1 255	1 350
Other conifers		Other conifers	2 010	2 298	113	135	144
		TOTAL	3 111	3 457	4 012	4 415	4 888

Total may not coincide with the aggregate of individual figures because of the rounding.

Biomass stock

1. Biomass stock is not directly measured and thus such data do not exist. Biomass stock can be estimated by multiplying the growing stock of forest with standing trees by biomass expansion factor by a ratio of below-ground parts against above-ground parts by wood density. Biomass stock in undergrowth, dead wood, litter, and soil is not estimated.
2. Biomass expansion factor and wood density used for estimating biomass stock are based on “National Greenhouse Gas Inventory Report of Japan (April, 2009)” which was compiled by National Institute for Environmental Studies Greenhouse Gas Inventory Office (GIO) under the supervision of Ministry of the Environment.

Biomass expansion factor , ratio of below-ground parts against above-ground parts , and wood density by tree species

		BEF #-#		R #-#	D #t-d.m./m ³ #	Note
		#20	#20			
Conifer trees	Cedar	1.57	1.23	0.25	0.314	
	Cypress	1.55	1.24	0.26	0.407	
	Sawara cypress	1.55	1.24	0.26	0.287	
	Pine	1.63	1.23	0.26	0.451	
	Black pine	1.39	1.36	0.34	0.464	
	Hiba arborvitae	2.38	1.41	0.20	0.412	
	Larch	1.50	1.15	0.29	0.404	
	Momi fir	1.40	1.40	0.40	0.423	
	Sakhaline fir	1.88	1.38	0.21	0.318	
	Hemlock	1.40	1.40	0.40	0.464	
	Yezo spruce	2.18	1.48	0.23	0.357	
	Sakhaline spruce	2.17	1.67	0.21	0.362	
	Jap. umbrella pine	1.39	1.23	0.20	0.455	
	Japanese yew	1.39	1.23	0.02	0.454	
	Ginkgo	1.50	1.15	0.20	0.450	
Exotic conifer trees	1.41	1.41	0.17	0.320		

	Other conifer trees	2.55	1.32	0.34	0.352	Applied to Hokkaido, Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima, Tochigi, Gunma, Saitama, Niigata, Toyama, Yamanashi, Nagano, Gifu and Shizuoka prefectures
		1.39	1.36	0.34	0.464	Applied to Okinawa pref.
		1.40	1.40	0.40	0.423	Applied to prefectures other than above
Broad leaf trees	Beech	1.58	1.32	0.26	0.573	
	Oak (evergreen tree)	1.52	1.33	0.26	0.646	
	Chestnut	1.33	1.18	0.26	0.419	
	Chestnut oak	1.36	1.32	0.26	0.668	
	Oak (deciduous tree)	1.40	1.26	0.26	0.624	
	Poplar	1.33	1.18	0.26	0.291	
	Alder	1.33	1.25	0.26	0.454	
	Elm	1.33	1.18	0.26	0.494	
	Zelkova	1.58	1.28	0.26	0.611	
	Cercidiphyllum	1.33	1.18	0.26	0.454	

	Big-leaf	1.33	1.18	0.26	0.386	
	Maple tree	1.33	1.18	0.26	0.519	
	Amur cork	1.33	1.18	0.26	0.344	
	Linden	1.33	1.18	0.26	0.369	
	Kalopanax	1.33	1.18	0.26	0.398	
	Paulownia	1.33	1.18	0.26	0.234	
	Exotic broadleaf trees	1.41	1.41	0.16	0.660	
	Birch	1.31	1.20	0.26	0.468	
	Other broad leaf trees	1.37	1.37	0.26	0.469	Applied to Chiba, Tokyo, Kochi, Fukuoka, Nagasaki, Kagoshima and Okinawa prefectures
		1.52	1.33	0.26	0.646	Applied to Mie, Wakayama, Oita, Kumamoto and Saga pref.
		1.40	1.26	0.26	0.624	Applied to prefectures other than above

BEF#Biomass expansion factor (20= age class)

R#Root-to-shoot ratio (Ration of below-ground parts against above-ground parts)

D#Wood density

Carbon stock

1. Carbon stock of above- and below-ground can be estimated by multiplying the biomass stock estimated by the carbon content of dry matter. In addition, in Japan, Greenhouse Gas emissions and removals of dead wood, litter and soil in forest sector are averaged by using Calculation model CENTURY-jfos. Therefore, Carbon stock of each year cannot be calculated.
2. Carbon content of dry matter used for estimating carbon stock is based on "National Greenhouse Gas Inventory Report of Japan (April, 2009)" which was compiled by National Institute for Environmental Studies Greenhouse Gas Inventory Office (GIO) under the supervision of Ministry of the Environment.

Carbon stock

Carbon content of dry matter is 0.50 for both planted and natural forests.

3.3 Analysis and processing of national data

3.3.1 Adjustment

Not necessary.

3.3.2 Estimation and forecasting

Growing stock

Estimation for 2000, 2005, and 2010 was done with the same method used for the Question 1 as described in 1.3.2 (1) and (2).

Carbon stock

Estimated from biomass stock estimated for 1990, 2000, 2005, and 2010.

3.3.3 Reclassification

Not necessary.

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		3111	3853	4255	4699	N/A	N/A	N/A	N/A	N/A	N/A

	... of which coniferous	2010	2615	2938	3303	N/A	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	1097	1238	1316	1395	N/A	N/A	N/A	N/A	N/A	N/A

Table 3b

Category/Species name			Growing stock in forest (million cubic meters)			
Rank	Scientific name	Common name	1990	2000	2005	2010
1 st	Cryptomeria japonica	Ceder	N/A	N/A	1448	1662
2 nd	Chamaecyparis obtusa	Cypress	N/A	N/A	547	638
3 rd	Pinus spp.	Pine	N/A	N/A	387	403
4 th	Larix kaempferi	Larch	N/A	N/A	208	219
5 th	Abies sachalinensis	Sakhalin Fir	N/A	N/A	173	196
6 th	Quercus spp. (excluding Quercus acutissima and ever-green species)	Daimyo Oak(except Chestnut Oak)	N/A	N/A	80	64
7 th	Picea jezoensis	Honodo Spruce, Yezo Spruce	N/A	N/A	48	46
8 th	Quercus acutissima	Chestnut Oak	N/A	N/A	17	18
9 th	N/A	N/A	N/A	N/A	N/A	N/A
10 th	N/A	N/A	N/A	N/A	N/A	N/A
Remaining			N/A	N/A	1347	1452
TOTAL			.00	.00	4255.00	4698.00

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)	3cm	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	0cm	N/A

Minimum diameter (cm) of branches included in growing stock (W)	n.a.	Branches are not included
Volume refers to above ground (AG) or above stump (AS)	AG	N/A

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

Table 3c

Category		Net annual increment (m ³ per hectare and year)				
		Forest				
		1990	2000	2005	2010	2015
	Net annual increment	N/A	3.5	3.2	2.9	N/A
	... of which coniferous	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	N/A	N/A	N/A	N/A	N/A

Table 3d

Category		Biomass (million metric tonnes oven-dry weight)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
	Above ground biomass	1848	2202	2252	2618	N/A	N/A	N/A	N/A	N/A	N/A
	Below ground biomass	470	560	636	678	N/A	N/A	N/A	N/A	N/A	N/A
	Dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		2318.00	2762.00	2888.00	3296.00	.00	.00	.00	.00	.00	.00

Table 3e

Category		Carbon (Million metric tonnes)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
	Carbon in above ground biomass	924	1101	1126	1309	N/A	N/A	N/A	N/A	N/A	N/A

	Carbon in below ground biomass	235	280	318	339	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Living biomass</i>	1159	1381	1544	1648	N/A	N/A	N/A	N/A	N/A	N/A
	Carbon in dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Carbon in litter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Dead wood and litter</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Soil carbon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		1159.00	1381.00	1444.00	1648.00	.00	.00	.00	.00	.00	.00

Tiers

Variable/category	Tier for status	Tier for trend
Total growing stock	Tier 3	Tier 3
Net annual increment	Tier 3	Tier 3
Above ground biomass	Tier 3	Tier 3
Below ground biomass	Tier 3	Tier 3
Dead wood	N/A	N/A
Carbon in above-ground biomass	Tier 3	Tier 3
Carbon in below ground biomass	Tier 3	Tier 3
Carbon in dead wood and litter	N/A	N/A
Soil carbon	N/A	N/A

Tier criteria

Category	Tier for status	Tier for reported trend
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Total growing stock	Tier 3: Data sources Recent 10 years National Forest Inventory or remote sensing with ground truthing or programme for repeated compatible NFI 10 years Domestic volume functions Tier 2: Data sources/registers and statistics modelling or old NFI 10 years or partial field inventory Tier 1: Other data sources	Tier 3: Estimate based on repeated compatible tiers 3 (tier for status) Domestic growth functions Tier 2: Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 tier for status Tier 1: Other
Net annual increment	Tier 3: Scientifically tested national volume and growth functions Tier 2: Selection of volume and growth functions as relevant as possible Tier 1: Other	Tier 3: Confirmation/adjustment of functions used through scientific work Tier 2: Review work done to seek alternative functions Tier: 1 Other
Biomass	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied or other domestic or otherwise nationally relevant biomass studies Tier 2: Application of country specific national or sub-national biomass conversion factors from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	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	N/A	N/A
Growing stock of broadleaved coniferous	N/A	N/A
Growing stock composition	N/A	N/A
Net annual increment	N/A	N/A
Above-ground biomass	N/A	N/A
Below-ground biomass	N/A	N/A
Dead wood	Comments are as below of other general comments.	N/A
Carbon in above-ground biomass	N/A	N/A
Carbon in below-ground biomass	N/A	N/A

Carbon in dead wood	Comments are as below of other general comments.	N/A
Carbon in litter	Comments are as below of other general comments.	N/A
Soil carbon	Comments are as below of other general comments.	N/A

Other general comments to the table

Greenhouse Gas emissions and removals of dead wood, litter and soil in forest sector are averaged by using Calculation model CENTURY-jfos. Therefore, Carbon stock of each year cannot be calculated.

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

Documents for this question:

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

4.1 Categories and definitions

Term	Definition
Primary designated function	The primary function or management objective assigned to a management unit either by legal prescription documented decision of the landowner/manager or evidence provided by documented studies of forest management practices and customary use.
Non wood forest product (NWFP)	Goods derived from forests that are tangible and physical objects of biological origin other than wood.
Commercial value of NWFP	For the purpose of this table, value is defined as the commercial market value at the forest gate.
Category	Definition
Production forest	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Multiple use forest	Forest area designated for more than one purpose and where none of these alone is considered as the predominant designated function.
Total wood removals	The total of industrial round wood removals and woodfuel removals.
...of which woodfuel	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

4.2 National data

4.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency “Basic information on Special Forest Product”	Production of Wild vegetables, Chestnut, Bamboo shoots, Matsutake mushrooms, Illicium anisatum L , Cleyera japonica, Bamboo, Camellia oil, Raw lacquer, Wax	2010	N/A
2	Wood Demand and Supply Table	Supply of wood originating in Japan and in the forms of industrial round wood, wood for Shitake mushroom cultivation and for woodfuel	2002-2012	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

4.2.2 Classification and definitions

National class	Definition
Forest	Same as in Question 1, 1.4, Table 1a.
Special forest products collected from wild, bamboo and bamboo shoots (Listed in 4.2.1-2)	Special forest products (i.e., products derived from forests other than industrial wood and fuelwood) collected from wild, not including those produced on agricultural land and greenhouse cultivation.
Industrial round wood	Industrial round wood among the Supply of wood originating in Japan. Pulp is included in this category.
Wood for fuelwood	Same as “Woodfuel” per FAO’s definition. Wood chip for energy production purpose is not included in this category.

4.2.3 Original data

All forests in Japan are managed under the Forest Planning System. The Basic Plan for Forest and Forestry was established in 2001 pursuant to the Forest and Forestry Basic Act of 2001, which was revised from the Forestry Basic Act (Act No. 161, 1964). While all forests are expected to perform a certain degree of multiple functions, under the Basic Plan forests were exclusively classified into three categories (i.e., “forest for water and soil conservation”, “forest for symbiosis with people”, and “forest for cyclic use of resources”). This was to clarify which function to be focused and to describe appropriate forest management and conservation for each category.

According to the Basic Plan on Forest and Forestry established in 2011, primary functions of forest are classified into the following functions; “Conservation of headwater”, “Prevention of mountain disaster / Conservation of forest soil”, “Creation of pleasing environment”, “Health and recreation”, “Culture”, “Biodiversity conservation” and “Production of material resources”. This is to clarify which function to be focused and to describe appropriate forest management and conservation for each category. This clarification enable forest to be managed as forest where multi functions are expected to perform other than each forest operation contradict performance of expected each functions. Because this forest classification was introduced in 2011, all forest are categorized into multiple forest in this table.

“Basic information on Special Forest Product” Forestry Agency

(Unit: ton, amount – 1,000JPY)

Category	Production	
	(ton)	(1,000 JPY)
Wild plants and grasses	1,117.2	9,065,219
Chestnut	23,500.0	8,859,500

Bamboo shoots	39,746.0	7,710,724
Matsutake mushrooms	139.8	2,261,265
Illicium anisatum L	2,431.6	960,482
Bamboo	5,022	790,927
Cleyera japonica	733.7	562,014
Camellia oil	64.8	291,920
Raw lacquer	0.2	72,996
Wax	23.0	64,400
All other plant products		61,711
Total		30,701,158

Forestry Agency, “Wood Demand and Supply Table” (Unit: Volume of roundwood over bark, 1000 m³)

Category	90	91	92	93	94	95	96	97	98
Industrial wood	29,369	28,000	27,166	25,599	24,480	22,916	22,489	21,568	19,333
Wood for woodfuel	365	362	371	351	333	332	314	283	264
Total	29,734	28,362	27,537	25,950	24,813	23,248	22,803	21,851	19,597

Category	99	00	01	02	03	04	05	06	07
Industrial wood	18,764	18,022	16,759	16,077	16,155	16,555	17,176	17,617	18,626
Wood for woodfuel	308	233	213	190	181	169	159	148	145
Total	19,072	18,255	16,972	16,267	16,336	16,724	17,335	17,765	18,771

Category	08	09	10	11
Industrial wood	18,731	17,587	18,236	19,367
Wood for woodfuel	146	145	155	205
Total	18,877	17,732	18,391	19,572

4.3 Analysis and processing of national data

4.3.1 Adjustment

Not necessary.

4.3.2 Estimation and forecasting

4.3.3 Reclassification

FRA 2015 Categories	National Reporting Classes
Multiple use forest	All forest

4.4 Data

Table 4a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	N/A	N/A	N/A	N/A	N/A

	Multiple use forest	N/A	N/A	N/A	N/A	24958
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Table 4b

Rank	Name of product	Key species	Commercial value of NWFP removals 2010 (value 1000 local currency)	NWFP category
1 st	Wild plants and grasses	Pteridium aquilinum var. Latiusculm, Osmunda japonica	9065219	1
2 nd	Chestnut	N/A	8859500	1
3 rd	Bamboo shoots	N/A	7710724	1
4 th	Matsutake mushrooms	Ticholoma matsutake (S.Ito et Imai) Sing	2261265	1
5 th	Illicium anisatum L.	N/A	960482	6
6 th	bamboo	Phyllostachys pubescens, Phyllostachys bambusoides	790927	5
7 th	Cleyera japonica	N/A	562014	6
8 th	Camellia oil	N/A	291920	1
9 th	Raw lacquer	N/A	72996	7
10 th	Wax	N/A	64400	5
TOTAL			30639447.00	

2010	
Name of local currency	Yen

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 beeswax
12 Wild meat
13 Raw material for medicine
14 Raw material for colorants
15 Other edible animal products
16 Other non-edible animal products

Table 4c Pre-filled data from FAOSTAT

Year	FRA 2015 category (1000 m ³ u.b.)	
	Total wood removals	...of which woodfuel
1990	29734	365
1991	28362	362
1992	27537	371
1993	25950	351
1994	24813	333
1995	23248	332
1996	22803	314
1997	21851	283
1998	19597	264
1999	19072	308
2000	18255	233
2001	16972	213

2002	16267	190
2003	16336	181
2004	16724	169
2005	17335	159
2006	17765	148
2007	18771	145
2008	18877	146
2009	17732	145
2010	18391	155
2011	19572	205

Tiers

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

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	N/A	N/A
Multiple use forest	All forests in Japan are expected for Multiple use forest.	N/A
Total wood removals	N/A	N/A
Commercial value of NWFP	N/A	N/A

Other general comments to the table

N/A

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	Annual Report on Protection Forest (Forestry Agency)	Protection Forest area designated for protection of soil by purposes in accordance with the Law	1990, 2000, 2005, 2010, 2012	N/A

2	Forestry Agency “National Forest Inventory”	Frequency of occurrence on soil erosion according to slope inclination	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

5.2.2 Classification and definitions

National class	Definition
Protection Forest for Headwater conservation	Forest to maintain the function highly to control streamflow and mitigate of flood and drought or to ensure water quantity for various purpose
Protection Forest for Prevention of soil run-off	Forest to prevent soil running-off through erosion and collapse on the ground by covering the trees and other vegetation
Protection Forest for Prevention of soil collapse	Forest to prevent soil collapse by mainly tree roots binding and other physical process
Protection Forest for Prevention of blowing sand	Forest to prevention of sand blowed and to intercept approach of blowing sand from coast to inland by forest covering sand at the coast
Protection Forest for Prevention of flood damage	Forest to prevent the flood or to reduce the damage of flood by mainly water pressure control function of tree trunks and erosion control function of tree roots in the case of overflow in the river
Protection Forest for Prevention of tidal damage	Forest to prevent damage of Tunami and spring tidal by mainly counteracting function for the wave energy of tree trunks
Protection Forest for Prevention of drought damage	Forest to prevent drought and to protect the regional source of water supply by the function of headwater conservation
Protection Forest for Prevention of avalanches	Forest to prevent establishment of snow cornice and snow slide by increasing frictional resistance of hillside slope or to reduce the force of avalanches
Protection Forest for Prevention of dangers from rockfall	Forest to prevent from dangers of rockfall through prevention of collapse and downfall of rocks by mainly tree roots binding and stop rolling rocks at hillside slope by standing trees
Protection Forest for Facilitating fish breeding	Forest to support fish habitat and breeding by providing fish nutrition and function to prevent water pollution

5.2.3 Original data

Protection Forest area are reported by types of ones based on above mentioned definition.

Trend of Area in Protection Forest (ha)

Category of Protection Forest	1990	2000	2005	2010	2012
Protection Forest for Headwater conservation	5,992,798	6,386,904	8,472,287	9,033,188	9,128,345
Protection Forest for Prevention of soil run-off	1,846,129	2,048,089	2,397,392	2,466,339	2,503,902
Protection Forest for Prevention of soil collapse	45,308	50,619	56,113	57,758	58,456
Protection Forest for Prevention of blowing sand	16,244	16,055	16,064	16,163	16,103
Protection Forest for Prevention of flood damage	759	688	635	626	623
Protection Forest for Prevention of tidal damage	12,032	12,005	12,051	12,166	12,234
Protection Forest for Prevention of drought damage	38,126	63,724	91,683	98,007	98,981
Protection Forest for Prevention of avalanches	17,007	17,302	17,460	16,676	16,555
Protection Forest for Prevention of dangers from rockfall	1,651	1,804	1,951	2,184	2,280

Protection Forest for Facilitating fish breeding	25,875	24,615	27,030	30,304	26,996
Protection Forest for Prevention of wind damage	54,596	55,394	56,276	56,639	56,718
Protection Forest for Prevention of snow damage	0	16	31	31	31
Protection Forest for Prevention of fog damage	51,277	58,959	61,485	61,345	61,408
Protection Forest for Prevention of fires damage	338	318	305	307	305
Protection Forest for Conservation of navigational landmarks	352	340	331	317	314
Protection Forest for Promotion public health	105,406	115,878	105,113	97,061	93,101
Protection Forest for Conservation of the landscape in tourist and historic sites	16,078	14,504	14,460	14,528	14,406

Note: At a point in end of each fiscal year (31th March)

In the case that protection forest designated more than two category, forest aera are accounted in upper category of protection forest.

Frequency of occurrence on soil erosion according to slope inclination.

According to the National Forest Inventory in Japan, the slope become steeper, the more frequent soil erosion tend to be observed. The following table is the inventory's result of this field.

Inclination (Degree)	Soil erosion (%)	No soil erosion (%)
0-4	5	95
5-9	6	94
10-14	7	93
15-19	9	91
20-24	8	92
25-29	13	87
30-34	15	85
35-39	20	80
40-44	31	69
45-49	28	72
50-	30	70

5.3 Analysis and processing of national data

5.3.1 Adjustment

Not Necessary

5.3.2 Estimation and forecasting

The data of 2015 is not available so that the data of 2012 is inserted as of 2015.

5.3.3 Reclassification

Table 5a

Category	National class
Protection of soil and water	Total area of each category in Protection Forest below
...of which production of clean water (<i>sub-category</i>)	Protection Forest Area for Headwater conservation, Protection Forest Area for Facilitating fish breeding
...of which coastal stabilization (<i>sub-category</i>)	No data available
...of which desertification control (<i>sub-category</i>)	No data available
...of which avalanche control (<i>sub-category</i>)	Protection Forest Area for Prevention of avalanches
...of which erosion, flood protection or reducing flood risk (<i>sub-category</i>)	Protection Forest Area for Prevention of soil run-off, Prevention of soil collapse, Prevention of flood damage
...of which other (<i>sub-category</i>)	Protection Forest Area for Prevention of blowing sand, Prevention of tidal damage, Prevention of drought damage, Prevention of dangers from rockfall

Table 5b

Category	National class
Ecosystem services, cultural or spiritual values	Total area of each category in Protection Forest below
...of which public recreation (<i>sub-category</i>)	Protection Forest Area for Promotion public health
...of which carbon storage or sequestration (<i>sub-category</i>)	No data available
...of which spiritual or cultural services (<i>sub-category</i>)	Protection Forest Area for Conservation of the landscape of tourist and historic sites

...of which other (<i>sub-category</i>)	Protection Forest Area for Prevention of wind damage, Prevention of snow damage, Prevention of fog damage, Prevention of fires damage, Conservation of navigational landmarks
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5.4 Data

Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
CFRQ	Protection of soil and water					
CFRQ	... of which production of clean water	6019	6412	8499	9063	9155
CFRQ	... of which coastal stabilization	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which desertification control	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which avalanche control	17	17	17	17	17
CFRQ	... of which erosion, flood protection or reducing flood risk	1892	2099	2454	2525	2563
CFRQ	... of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

Other

Those Protection Forest are designated in accordance with the Forest Law of Japan. Once they are designated, permission by governor is requested to be converted to other land use so that they are similar to permanent forest land use.

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values					
...of which public recreation	105	116	105	97	93
...of which carbon storage or sequestration	N/A	N/A	N/A	N/A	N/A
...of which spiritual or cultural services	16	15	14	15	14
...of which other (please specify in comments below the table)	107	115	118	119	119

Tiers

Category	Tier for reported trend	Tier for status
Protection of soil and water	Tier 3	Tier 3
Ecosystem services, cultural or spiritual values	Tier 3	Tier 3

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	N/A	N/A
Coastal stabilization	For the coastal stabilization, there are some measures according to different law with Forest Law stipulating designation of Protection Forest.	N/A
Desertification control	Japan has no dry land officially so Japan doesn't have desertification area.	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	All forests in Japan are expected to play the role for carbon storage or sequestration so that there are no forests primary and exclusively for carbon.	N/A
Spiritual or cultural services	N/A	N/A
Other ecosystem services	N/A	N/A

Other general comments to the table

Those Protection Forest are designated in accordance with the Forest Law of Japan. However, the Minister of Agriculture, Forestry and Fisheries or governor(s) should dissolve the designation of the areas on Protection Forest without delay once the designating objective disappear. Further the minister or governor(s) can dissolve the designation of the areas of Protection Forest where public benefits are demanded.

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	5th county report on Conservation on Biodiversity Conservation	Protected Areas (Land and Inland)	2011	N/A
2	Forestry Agency data	Conservation of biodiversity, Forest area within protected areas	2011	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

6.2.2 Classification and definitions

National class	Definition
----------------	------------

Protected Areas (Land and Inland)	Clearly identified areas where managed / administrated by laws or other effective measures for the purpose of biodiversity conservation and sustainable use of ecosystem services. Specifically, National Park, Quasi-National Park and Prefectural Natural Park under National Park Law, Wilderness Conservation Area and Nature Conservation Area under Nature Conservation Law, Natural Habitat Protection Area under Law on Conservation of Endangered Species of Wild Fauna and Flora, National Forest Reserve and Green Corridor under Law Concerning Utilization of National Forest Land, Natural Seashore Conservation Area under Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea, Suburban Green Conservation Area under Law for the Conservation of Suburban Green Zones in the National Capital Region and Law for the Development of Conservation Area in Kinki Region, Green Conservation Area under Urban Green Space Conservation Law, Natural Monument under Law for Protection of Cultural Properties, and other protected area designated by bylaw of prefecture government.
N/A	N/A
N/A	N/A
N/A	N/A

6.2.3 Original data

According to the 5th county report on Conservation on Biodiversity Conservation, with regard to the Aichi Target 11 it is reported that areas, which contributes to biodiversity conservation, have been designated by laws and regulations and 20.3 % (76,800km²) of land and inland areas have been designated /conserved as protected areas as of April 2011, This figure is calculated using GIS with depletion of overlapped areas from the available data among the definition on 6.2.2 as following; National Park, Quasi-National Park and Prefectural Natural Park (National Park Law), Wildlife Protection Area (Wildlife Protection and Hunting Law), Wilderness Conservation Area and Nature Conservation Area (Nature Conservation Law), Natural Habitat Protection Area (Law on Conservation of Endangered Species of Wild Fauna and Flora), National Forest Reserve and Green Corridor (Law Concerning Utilization of National Forest Land), however; it's not reported that how many forest areas are included among the proted areas.

Considaring the data availability and deninition of Japan's CBD country report, the protected areas within forest are calculated from thefollwoing data in Forestry Agency; National Park, Quasi-National Park, Prefectural Natural Park, part of Wildlife Protection Area, Wilderness Conservation Area, Nature Conservation Area, and National Forest Reserve (Overlapped areas are depleted).

6.3 Analysis and processing of national data

6.3.1 Adjustment

6.3.2 Estimation and forecasting

6.3.3 Reclassification

FRA 2015 Categories	National Reporting Classes
Forest area within protected areas	Amount of areas (Overlapped areas are depleted) as following: National Park, Quasi-National Park and Prefectural Natural Park under National Park Law, Wilderness Conservation Area and Nature Conservation Area under Nature Conservation Law, and National Forest Reserve under Law Concerning Utilization of National Forest Land

6.4 Data

Table 6

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Conservation of biodiversity	N/A	N/A	N/A	4110	N/A
	Forest area within protected areas	N/A	N/A	N/A	4110	N/A

Tiers

Category	Tier for status	Tier for reported trend
Conservation of biodiversity	Tier 3	Tier 1
Forest area within protected areas	Tier 3	Tier 1

Tier criteria

Category	Tier for status	Tier for reported trend
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<ul style="list-style-type: none"> • Conservation of biodiversity • Forests within protected areas 	<p>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</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>
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6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Conservation of biodiversity	N/A	N/A
Forest area within protected areas	N/A	N/A

Other general comments to the table
N/A

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	Ministry of the Environment “Basic Plan for conservation and restoration of natural environment in Ogasawara Islands”	Canopy-occupation area of Javanese bishopwood	2007	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

7.2.2 Classification and definitions

National class	Definition
Canopy-occupation area of Javanese bishopwood	Area of canopy occupied by Javanese bishopwood.
N/A	N/A
N/A	N/A
N/A	N/A

7.2.3 Original data

Ministry of the Environment	
“Canopy-occupation area of Javanese bishopwood in Ogasawara Islands”	
	2003

Mother Island (ha)	296.5
Father Island (ha)	50.9
Total (ha)	347.4

7.3 Analysis and processing of national data

7.3.1 Adjustment

Not necessary.

7.3.2 Estimation and forecasting

The data of 2005 is not available so that the data of 2003 is inserted as one of 2005. Any survey has not been conducted since the year.

7.3.3 Reclassification

7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	2010
Javanese bishopwood (<i>Bischofia javanica</i>)	0.3	N/A
N/A	N/A	N/A

N/A	N/A	N/A
N/A	N/A	N/A
Total	0.3	N/A

Tiers

Category	Tier for status	Tier for reported trend
Invasive species	Tier 1	Tier 1

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	N/A	N/A

Other general comments to the table

N/A

8. How much forest area is damaged each year?

Documents for this question:

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

8.1 Categories and definitions

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

8.2 National data

8.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency “Handbook of Forestry Statistics”	Damage caused by forest fires, Damage caused by designated biological causes such as forest diseases, insect and extreme weather events	1988-2010	N/A
2	Forestry Agency “National forest management Statistics”	Damage caused by extreme weather events (national forest)	1988-2010	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
Damaged forest by fires	Burned area and number of forest fires

Damage caused by designated biological causes	Area of forest in which trees and/or seedlings are damaged by designated biological causes (as listed below) in accordance with the article 2 of the Forest Disease and Insect Control Law. For pine nematode, data are provided in the volume of standing trees damaged. a. Pine nematode (<i>Bursaphelenchus xylophilus</i>) carried by the pine sawyer beetle (<i>Monochamus alternatus</i>) b. Wood-boring beetle such as ambrosia beetle c. Pine moth (<i>Dendrolimus spectabilis</i>) d. Pine needle gall midge (<i>Thecodiplosis japonensis</i>) e. Cryptomeria needle gall midge (<i>Contarinia inouye</i>) f. Gypsy moth (<i>Lymantria dispar praetelea</i>) g. Cryptomeria spider mite (<i>Acarina</i> sp.) h. Chestnut gall wasp (<i>Dryocosmus kuriphilus</i>) i. Shoot blight of larch (<i>Botryosphaeria loricata</i>) j. Oak platypodid beetle (<i>Platypus quercivorus</i>)
Damage caused by extreme weather events	Area of forest damaged by extreme weather events such as wind, water, snow, drought, frost and saline wind.
N/A	N/A

8.2.3 Original data

Forest Fire										
(Area: 1,000 ha)										
Categories	88	89	90	91	92	98	99	00	01	02
Area of forest fires	3.2	2.1	1.3	2.7	2.3	0.8	1.0	1.5	1.8	2.6
Number of forest fires	3,589	2,894	2,858	2,535	2,262	1,913	2,661	2,805	3,007	3,343
Categories	03	04	05	06	07	08	09	10	11	12
Area of forest fires	0.7	1.6	1.1	0.8	0.7	0.8	1.1	0.8	2.1	0.4

Number of forest fires	1,810	2,592	2,215	1,576	2,157	1,891	2,084	1,392	2,093	1,178
Damage										
(Unit: 1,000 m ³ for Pine nematode & Oak platypodid beetle, 1,000 hectares for others)										
Categories	88	89	90	91	92	98	99	00	01	02
Damage caused by designated biological causes										
(1) Pine nematode	1,050	915	952	1,161	1,126	760	716	837	912	915
(2) Wood-boring beetle	-	-	-	-	-	-	-	-	-	-
(3) Pine moth	1	1	1	0	0	0.0	0.0	0.0	0.0	0.0
(4) Pine needle gall midge	1	1	1	1	0	0.1	0.0	-	0.0	-
(5) Cryptomeria needle gall midge	1	1	1	1	1	0.0	0.0	-	-	-
(6) Gypsy moth	0	0	0	0	0	0.0	0.0	0.0	0.0	-
(7) Cryptomeria spider mite	2	2	1	1	1	0.0	0.0	0.1	0.0	0.0

	(8) Chestnut gall wasp	0	0	0	0	0	-	-	-	-	-
	(9) Shoot blight of larch	-	-	-	-	-	-	-	-	-	-
	(10) Oak platypodid beetle	-	-	-	-	-	-	-	32	19	78
Damage caused by extreme weather events											
	(1) Wind and water	1.0	1.3	6.3	76.6	3.6	13.3	10.4	6.4	0.2	17.1
	(2) Snow	9.0	6.1	4.3	6.1	3.0	5.6	7.4	2.0	4.3	14.4
	(3) Drought	0.3	1.7	7.0	0.2	0.7	0.0	0.9	6.2	0.6	0.4
	(4) Frost	4.1	2.9	0.4	0.3	0.3	0.6	1.6	0.6	0.2	0.2
	(5) Saline wind	-	0.1	0.0	1.6	0.0	-	0.0	-	-	0.3

Categories	03	04	05	06	07	08	09	10
Damage caused by designated biological causes								

	(1) Pine nematode	797	733	689	644	619	626	594	582	
	(2) Wood- boring beetle	-	-	-	-	-	-	-	-	
	(3) Pine moth	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	
	(4) Pine needle gall midge	-	-	-	-	-	-	-	-	
	(5) Cryptomeria needle gall midge	-	0.0	-	-	-	0.0	-	-	
	(6) Gypsy moth	0.6	-	-	0.0	-	15.0	0.0	-	
	(7) Cryptomeria spider mite	0.0	0.0	-	-	-	-	-	-	
	(8) Chestnut gall wasp	-	-	-	-	-	-	-	-	
	(9) Shoot blight of larch	-	-	-	-	-	-	-	-	
	(10) Oak platypodid beetle	51	71	92	59	116	133	230	325	

Damage caused by extreme weather events													
	(1) Wind and water	0.9	59.9	1.3	15.4	3.0	0.3		0.8		0.2		
	(2) Snow	2.1	2.4	1.0	2.6	2.4		0.5	0.9		1.4		
	(3) Drought	0.2	0.1	0.7	0.1	0.8	0.2		2.6		0.3		
	(4) Frost	0.1	0.3	0.0	0.0	0.2	0.8		0.1		0.1		
	(5) Saline wind	0.0	0.1	0.0	0.0	0.0	0.0		-		-		

8.3 Analysis and processing of national data

8.3.1 Adjustment

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8.3.2 Estimation and forecasting

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8.3.3 Reclassification

FRA2015 Category	National Reporting Classes
Number of fires	Area of forest fires

Burned area	Number of forest fires
Outbreaks of insects	Damage caused by designated biological causes such as forest insect
Outbreaks of diseases	Damage caused by designated biological causes such as forest diseases
Severe weather events	Damage caused by extreme weather events

8.4 Data

Table 8a

Category		000 ha, number of fires									
		2003		2004		2005		2006		2007	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which forest area burned	0.7	1810	1.6	2592	1.1	2215	0.8	1576	0.7	2156
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which forest area burned	0.8	1891	1.1	2084	0.8	1392	2.1	2093	0.4	1178

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
2	Pine nematode	2010	582
2	Oak platypodid beetle	2010	325
3	Wind and water damage	2010	0.2

3	Snow damage	2010	1.4
3	Drought damage	2010	0.3
3	Frost damage	2010	0.1
1	Gypsy moth	2008	15
1	Pine moth	2007	0.5
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 3	Tier 3

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	N/A	N/A

Insects	N/A	N/A
Diseases	Unit of "Pine nematode" and "Oak platypodid beetle" in table 8b is reported by thousand cubic meter.	N/A
Severe weather events	N/A	N/A

Other general comments to the table

N/A

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

Documents for this question:

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

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

Table 9

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

Tiers

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

Tier criteria

Category	Tier for reported trend
Reduction in canopy cover	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	Annual Report on Forest and Forestry in Japan	Policy, Strategy, Legislation and Regulation	2012	Annually Published
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

10.2.2 Classification and definitions

National class	Definition
N/A	N/A

10.2.3 Original data

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10.3 Data

Table 10

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

10.4 Comments

Variable / category	Comments related to data definitions etc
Policies supporting sustainable forest management	Forest and Forestry Basic Act., Basic Plan for Forest and Forestry, Local Forestry Improvement Plan formulated by prefecture
Legislation and regulations supporting sustainable forest management	Forest Act

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	Basic Plan on Forest and Forestry	2011	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A

Table 11

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	The implementation of public comment procedure based on the Administrative Procedures Act

Other general comments

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

Documents for this question:

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

12.1 Categories and definitions

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

12.2 National data

12.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency Source	Area of; Protection Forest, National Forest Reserve, Wilderness Conservation Area	2012-13	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

12.2.2 Classification and definitions

National class	Definition
Protection Forest	Protection Forest are designated in accordance with the Forest Law of Japan. Once forests are designated, permission by governor is needed to be converted them to other land use. So that this seems to be very similar to permanent forest land use. Protection Forest are also reported in the Question 5 of both CFRQ and FRA.
National Forest Reserve	National Forest Reserve is designated to sustain unique native forest ecosystems, fauna and flora, habitats of endangered species and diverse genetic resources of tree species distributed in national forest.
Wildness Conservation Area	Wilderness Conservation Area is the designated area to be preserved under the Wilderness Conservation Act for its well maintained original natural environment without any human disturbances. Logging operations are totally prohibited within the area.

N/A	N/A
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12.2.3 Original data

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12.3 Analysis and processing of national data

12.3.1 Adjustment

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12.3.2 Estimation and forecasting

--

12.3.3 Reclassification

Category	National class
Forest area intended to be in permanent forest land use	All forests (Reffer to Table 21a)
...of which permanent forest estate (<i>sub-category</i>)	Forest area under felling and land -use conservation restrictions sucha as Protection Forest, National Forest Reserve and Wildness Conservation Area, is counted .

12.4 Data

Table 12

Categories		Forest area 2010 (000 ha)
	Forest area intended to be in permanent forest land use	24966
	... of which permanent forest estate	12094

Tiers

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

Permanent forest estate	Tier 3
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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	N/A

Other general comments

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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	Forestry Agency a “Survey on the State of Forest Resources”	Many such as Forest, Forest with standing trees, Forest without standing trees, Cut-over land, Under-stocked land, Bamboo forest	1990, 1995, 2002, 2007, 2012	As of 31 March of each year. Data do not include figures for the Northern Territories (Habomai Islands, Shikotan Island, Kunashiri Island and Etorofu Island).
2	Forestry Agency “Handbook of Forestry Statistics”	Many such as Area of reforestation (of which on previously planted forest, of which on previously natural forest)	1988-1992, 1998-2010	N/A
3	Annual Report on Forest and Forestry in Japan	Policy, Strategy, Legislation and Regulation	2012	Annually Published
4	State of Japan’s Forests and Forest Management - 2nd Country Report of Japan to the Montreal Process -	Each Criteria & Indicator	2009	N/A
5	Forestry Agency “ National Forest Inventory”	N/A	N/A	N/A

13.2.2 Classification and definitions

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

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

13.3 Data

Table 13a

Category	% of total forest area	Most recent year	Check all boxes that apply					
			Continuous	Periodic	Permanent ground plots	Temporary ground plots	Aerial/remote sensing sample based	Aerial/remote sensing full coverage
Forest inventory	100	2012	yes	yes	yes			
Other field assessments	100	2012	yes	yes				
Updates to other sources	N/A	N/A						
Expert estimate	N/A	N/A						

Table 13b

Type of forest reporting used at national scale	Check boxes that apply
1 Criteria and Indicators reporting	yes
2 Periodic national state of the forest report	yes
3 Other (please document)	no
4 None	no

Other type of forest reporting
N/A

13.4 Comments

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

Other general comments

National Forest Inventory in Japan started in 1999, and the period of one inventory is 5 years rotation. This inventory is conducted to grasp the state of forest with establishing permanent sampling plots nationwide. First period was from 1999 to 2003, second was 2004 to 2008. Currently third period inventory has been conducted since 2009.

According to the NFI, distribution of slope inclination is around 25% less than 15 degree, and forest where slope inclination is equal to or more than 15 degree account for more than 70% of forests, and very steep forest where inclination is equal to or more than 35% account for around 20 % of forests.

Inclination (degree)	Percentage
Less than 5	8
5 to less than 10	8
10 to less than 15	9
15 to less than 20	12
20 to less than 25	12
25 to less than 30	15
30 to less than 35	15
35-	21

The following table is one of the results of NFI that shows relation between forest distribution and distance of forest road, the distance from around half of forests to forest road is more than 200 meters.

Distance from forest road	Percentage
Less than 200#	50
200m to less than 500#	26
500m to less than 1,000#	14
1,000m to less than 1,500#	5
500m to less than 2,000#	2
2,000#-	3

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

Documents for this question:

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

14.1 Categories and definitions

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

14.2 National data

14.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency “Survey on the State of Forest Resources”	Forest management plan for private forest	2007	N/A
2	Forestry Agency “Forest management plan by region in National forest”	Forest management plan for National Forest	2010	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

14.3 Data

Table 14a

Forest plan type	Forest area 2010 (000 ha)
Forest area with management plan	14737
... of which for production	N/A
... of which for conservation	N/A

Table 14b

Indicate which (if any) of the following are required in forest management plans in your country

1 Soil and water management	yes
2 High conservation value forest delineation	yes
3 Social considerations community involvement	yes

Table 14c

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

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

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 management plans for private forest and national forest are 5 year periodic plan, formulated by forest owner and Forestry Agency. It therefore, is not monitored annually.
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	yes
2. Operations phase	yes
3. Review of operations	yes

Tiers

Category	Tier for status
Type of stakeholder inputs	Tier 3

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 involvement	The article 6 of Forest Law (1951, No. 249) stipulates that when a regional forest plan being formulated or changed, in accordance with the ministerial ordinance of the Ministry of Agriculture, Forestry and Fisheries, prefectural governor shall notify it publicly and establish the period for about 30 days from a day of the notification concerned and must offer the regional forest plan concerned for public general inspection. The paragraph 3, article 7-2 of Forest Law stipulate that when Regional Plan for National forest and Municipality local forest improvement plan also have to take same procedures for public general inspection.
N/A	N/A

N/A	N/A
-----	-----

Other general comments

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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	12.44	14.61	14.61	178.44	204.53	269.96	277.5
	PEFC	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
		2007	2008	2009	2010	2011	2012	
	FSC	277.61	279.08	329.33	369.58	392.61	397.17	
	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
	SGEC	0	0	0	0.88	5.42	205.35	337.4
	N/A	0	0	0	0	0	0	0
	N/A	0	0	0	0	0	0	0

		2007	2008	2009	2010	2011	2012	
	SGEC	709.91	727.17	803.29	864.35	874.18	896.88	
		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	N/A
Domestic forest management certification	SGEC(Sustainable Geen Ecosystem Council) is currently consulting with PEFC for mutual recognition.

Other general comments

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

Documents for this question:

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

17.1 Categories and definitions

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

17.2 National data

17.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forestry Agency “Handbook of Forestry Statistics”	National forest system revenue, Forestry Agency total general account budget	2000 2005 2010	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

17.3 Data

Table 17

Category	Revenues / expenditures (000 local currency)		
	2000	2005	2010
Forest revenue	39138654	28920509	31066561
Public expenditure on forestry	644834551	501598990	358103639
	2000	2005	2010
Name of Local Currency	Yen	N/A	N/A

17.4 Comments

Category	Comments related to data definitions etc
Forest revenue	In this category, we input National forest system revenue as total of timber sales revenue, forest land sales revenue, and miscellaneous revenue.
Public expenditure on forestry	In this category, we input Public expenditure in forest sector.
Other general comments	N/A

Other general comments

National forest system revenue Unit 1,000 yen			
	2000	2005	2010
National forest system revenue	62,036,277	42,660,824	31,066,561
Operational revenue (timber sales etc)	30,120,104	21,416,109	21,930,217
Land sales revenue etc	22,897,623	13,740,315	4,096,961
Miscellaneous revenue	9,018,549	7,504,401	
Land rent revenue etc			5,039,383
Total may not coincide with the aggregate of individual figures because of the rounding.			
Public Expenditure Unit 1,000 yen			
	2000	2005	2010
Forestry Agency	644,834,551	501,598,990	358,103,639
Total general account budget			

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 Agency “Survey on the State of Forest Resources”	National forest (managed by the Forestry Agency), Publicly-owned forest, Privately-owned forest	1990 1995 2002 2007 2012	As of 31 March of each year Data do not include figures for the Northern Territories (Habomai Islands, Shikotan Island, Kunashiri Island and Etorofu Island)
2	Forestry Agency “National Forest Management Statistics”	National forest permit for use by local people	1990 2000 2005 2010	As of 31 March of each year
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

18.2.2 Classification and definitions

National class	Definition
“National Forest (managed by the Forestry Agency)”	Forest managed by the Forestry Agency, where: (i) land is owned by the national government, and (ii) land is owned by other party but the national government implements silviculture under a contract which defines the share of profit between the national government and landowner(s).
“Publicly-owned forest”	Forest owned or possessed by local/regional public body as defined under the article 1-3 of the Local Autonomy Law, including prefectural government, municipal government, special district, communal district, etc., and can be managed by the sole discretion of such public body. This includes land owned by other party (excluding the national government) but any of the above-mentioned public body implements silviculture under a contract which defines the share of profit between the said public body and landowner(s).
Forest owned by communal districts	Communal districts stipulated in the article 294 of the Local Autonomy Act (1947, No.67). In the case of municipal merger, communal districts are formed for forest used to be owned by community and/or old municipalities that are used and gotten earnings by local community.
“Privately-owned forest”	Forest that does not fall under “National forest” and “Publicly-owned forest”.
“National forest permit for use by local people”	Area of national forest permitted for use by local people, including harvest of fuelwood/non-wood forest products and grazing.

18.2.3 Original data

	Area (1000 hectares)				
	1990	1995	2002	2007	2012
National forest (managed by the Forestry Agency)	7,654	7,647	7,631	7,614	7,602
Publicly-owned forest	2,700	2,729	2,796	2,830	2,919
of which owned by communal districts ²⁾	n.a.	n.a.	290	299	338
Privately-owned forest	14,597	14,521	14,440	14,535	14,437
Total	24,950	24,898	24,868	24,979	24,958

1) Total may not coincide with the aggregate of individual figures because of the rounding.

2) For communal districts, data are not available for 1990 and 1995.

Forestry Agency, “National Forest Management Statistics”

	Area (1000 hectares)			
	1990	2000	2005	2010
National forest permit for use by local people	1,743	1,533	1,470	1321

18.3 Analysis and processing of national data

18.3.1 Adjustment

Not necessary.

18.3.2 Estimation and forecasting

Estimation of the areas of national forest (managed by the Forestry Agency), publicly-owned forest, and privately-owned forest was done as follows:

Figures for 2000, 2005, and 2010 were estimated by the same method used for the Question 1 as described in 1.3.2 (1) and (2).

18.3.3 Reclassification

FRA2015Categories	National Reporting Classes	
Public ownership	# National forest # Publicly-owned forest excluding those owned by “communal districts”	
...of which owned by the state at national scale	# National forest	
...of which owned by the state at the sub-national government scale	# Publicly-owned forest excluding those owned by “communal districts”	
Private ownership	# Privately-owned forest # Publicly-owned forest which are owned by “communal districts”	
...of which owned by individuals	No data available	

...of which owned by private business entities and institutions	No data available	
...of which owned by local, tribal and indigenous communities	# Publicly-owned forest which are owned by “communal districts”	
Unknown ownership	No data available	
FRA2015Categories		
National Reporting Classes		
Public Administration	Forest area reclassified as “public ownership” as described above minus “area of national forest permit for use by local people”	
Individuals	No data available	
Private companies	No data available	
Communities	National forest permit for use by local people	
Other	No data available	

18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	2000	2005	2010
	Public ownership	10354	10412	10142	10168
	... of which owned by the state at national scale	7654	7636	7621	7607
	... of which owned by the state at the sub-national government scale	2700	2570	2522	2561
	Private ownership	14597	14463	14793	14799

	... of which owned by individuals	N/A	N/A	N/A	N/A
	... of which owned by private business entities and institutions	N/A	N/A	N/A	N/A
	... of which owned by local, tribal and indigenous communities	N/A	N/A	295	322
	Unknown ownership	0	0	0	0
TOTAL		24951.00	24875.00	24935.00	24967.00

Tiers

Category	Tier for status	Tier for reported trend
Public ownership	Tier 3	Tier 3
Private ownership	Tier 3	Tier 3
Unknown ownership	Tier 3	Tier 3

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	8611	8879	8672	8847
Individuals	0	0	0	0
Private companies	0	0	0	0
Communities	1743	1533	1470	1321
Other	0	0	0	0

TOTAL	10354.00	10412.00	10142.00	10168.00
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Category	Tier for reported trend	Tier for status
Public Administration	Tier 3	Tier 3
Individuals	N/A	N/A
Private companies	N/A	N/A
Communities	Tier 3	Tier 3
Other	N/A	N/A

18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	N/A	N/A
Private ownership	Reported data for local, tribal and indigenous communities only refer to forest owned by local communities as no information was available for indigenous/tribal communities.	N/A
Unknown ownership	N/A	N/A
Management rights	N/A	N/A

Other general comments to the table

In Japan, ownership of trees generally coincides with ownership of the land on which they grow, except for the following: 1) National forest managed by the Forestry Agency, where the land is owned by other party but the national government implements silviculture under a contract which defines the share of profit between the national government and landowner(s). 2) Publicly-owned forest where land is owned by other party (excluding the national government) but any of the local/regional public body as defined under the article 1-3 of the Local Autonomy Law, including prefectural government, municipal government, special district, etc., implements silviculture under a contract which defines the share of profit between the said public body and landowner(s).

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	Ministry of Internal Affairs and Communications “Population Census”	Number of employed person (“employees”, “self-employed workers”, and “family workers”) within the industry classification “forestry”	1990 2000 2005 2010	The census covered all persons usually living in Japan, 15 years or older at the census date, i.e., 30 September of each year. Employed persons refer to those who did any work during the week before the census date for pay or profit. For further information, refer to: http://www.stat.go.jp/english/data/kokusei/index.htm
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

19.2.2 Classification and definitions

National class	Definition
“Forestry”	“Forestry” as defined in the Standard Industrial Classification for Japan.
“Employees”	Those employed by a person, a company, a corporation or a government office, etc. This includes executives and directors of a company or a corporation including managing directors.
“Self-employed workers”	Persons who run a business including those doing home handicraft work.

“Family workers”	Persons who work in a business operated by a member of the household in which they lived.
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19.2.3 Original data

Ministry of Internal Affairs and Communications, “Population Census”				
Categories	Unit: persons			
	1990	2000	2005	2010
Employees	77,182	47,176	31,382	56,846
Self-employed workers	21,195	14,151	11,135	8,783
Family workers	9,109	5,815	4,094	2,906
Total ¹⁾	107,500	67,153	46,618	68,553

1) Total includes persons whose employment status is unknown.

Reclassification

FRA 2015 Categories	National Reporting Classes
Employment in forestry	Total of “Employees”, “Self-employed workers” and “Family workers” in “Forestry”
... of which female	No data available

19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	2000	2005	2010
	Employment in forestry	108	67	47	69

	... of which female	N/A	N/A	N/A	N/A
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19.4 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Employment in forestry	N/A	N/A

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)	159200	Japanese Yen	2011

20.3 Comments

Category	Comments
Gross value added from forestry (at basic prices)	The government of Japan, Cabinet Office calculates Japan's GDP based on International Standard (93SNA) with Standard Year of 2005 and published latest one of 2011 in December, 2012.

Other general comments

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

Documents for this question:

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

21.1 Categories and definitions

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

21.2 National data

21.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Basic Plan for forest and forestry	Status of target forest	2020 2030	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

21.3 Data

Table 21a

Category	Forest area (000 ha)	
	2020	2030
Government target/aspiration for forest area	24958	24958

Table 21b

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

21.4 Comments

Category	Comments
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Government target/aspiration for forest area	Japan's status of target forest in 2030 is to maintain forest area in 2010.
Forests earmarked for conversion	N/A

Other general comments

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