

# GLOBAL FOREST RESOURCES ASSESSMENT 2015

## COUNTRY REPORT

# **Armenia**

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

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### Introductory Text

Place an introductory text on the content of this report

Hayantar” SNCO of the Ministry of Agriculture of the Republic of Armenia “provides for conservation, protection, reproduction, use, registration, stock taking and inventory, cadastre maintenance of forests, improvement of forest productivity and forest soil fertility, sustainable use of forest resources. It also covers the following business activities – timber harvesting, processing and marketing, growing and marketing of planting stocks, non-timber forest use (hay harvesting, animal grazing, installation of bee-hives, collection of wild fruits, nuts, mushrooms, berries, medicinal herbs and technical raw materials), as well as processing and marketing of the aforementioned bio-resources, agricultural land use for food production, processing and marketing; provision of recreation and tourism-related services, provision of consultancy services and information. *The management of forest lands under supervision of “Hayantar” is performed by the Head Office (comprised of 10 departments) and 19 “Forestry” branches. The aforementioned branches are located in the Marzes of Lori, Tavush, Syunik, Kotayk, Shirak, Vayots Dzor, Gegharkunik and Aragatsotn.*

### 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 both the 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	Forest Code of the Republic of Armenia	Forest cover	2005	Definitions of forest, non-forest and other related areas

2	State Land Account /Balance 1997 of the Republic of Armenia, Yerevan 1997	Land use	1983, 1988, 1993	N/A
3	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Lands
4	National Statistical Service Yearbook, Yerevan 2002	Land use and forest cover	1983, 1988, 1993	N/A
5	The Environmental Millennium Development Goal (MDG) in Europe and Central Asia Forest/ Biodiversity indicators for Armenia 2004". (Authors: A Ghouljanyan, A. Gevorgyan (independent expert) and R. Petrosyan	Forest cover percentage	2005	N/A
6	Forest Management Plans for Forest Enterprises and National Parks	Forest cover, forest indices	2004-2008	Information about State Forest Lands
7	Forest Code of the RA	definitions	2005	N/A

### 1.2.2 Classification and definitions

National class	Definition
Forest	Interconnected and interacting integrity of biological diversity dominated by tree-bush vegetation and of components of natural environment on forest lands or other lands allocated for afforestation with the minimal area of 0,1 ha, minimal width of 10 m and with tree crowns covering at least 30% of the area, as well as non-forested areas of previously forested forest lands. Note: The national classification does not consider the thresholds levels of the height and size of the area for including the forest fund lands into a specific category. The minimum area that is being accounted is 0.1 hectare
Forest lands	Forested lands and lands allocated or envisaged for flora and fauna protection, nature protection as well as non-forested lands allocated or envisaged for the running of forest economy.
Stocked (closed) forest lands	Stocked (closed) forest lands, occupied by young stands of trees species with the stand density of 0.4 and higher, and stands of other age groups with the stand density of 0.3 and higher, as well as land areas occupied by the bushy vegetation, where stands of trees species can be established without special forest-amelioration work.
Open (un-stocked) forest lands	Open (un-stocked) forest lands are not designated for forest re-establishing (clear-cut areas, burned forest areas, vanished stands, sparse stands, bare land, openings, nurseries, non-closed plantations and other).
Afforestation	Establishment and growing of artificial forest cultures through planting and seeding on non-forested lands as well as lands having other special-purpose significance.

Reforestation	Rehabilitation of previously forested areas and safeguarding of natural regrowth.
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### 1.2.3 Original data

<b>Forest area</b>		
<b>National Categories</b>	<b>Area (1000 hectares)</b>	
	<b>StateForestFund</b>	
	<b>1993</b>	<b>2005</b>
Stocked forest lands	334.1	331.6
Un-stocked forest lands	44.5	57.8
Non-forest lands	67.6	60.6
<p>The data for 2005 correspond to the inventory and assessment of 85% of the forest lands during 2005-2008 and the remaining 15% are old data.</p> <p>Non-forest lands, mainly of agricultural usage (fodder production, pastures, arable lands, rock outcrops, rocks, larg areas of bare lands with high inclination, non-usable lands and other) are not designated for forest re-establishing in Armenia.</p> <p>Correction of forest land areas of forest enterprises within the administrative borders of communities close to forests was implemented during 2000-2005 in Armenia. Consequently, agricultural lands in the former land balance of the forest enterprises within administrative borders were transferred to the ownership of communities. The decrease of non-forest lands between 1993 and 2005 is a result of this correction.</p> <p><b>Forest expansion, reforestation</b></p> <p>See final reporting table.</p>		

### 1.3 Analysis and processing of national data

### 1.3.1 Adjustment

#### 1.1.1 Adjustment

##### Forest area

Source	Inland water bodies	Total land area	Total country area
FAOSTAT	160 000 hectares	2 820 000 hectares	2 980 000 hectares

National data on the area of forest land were used directly. The area of other land was adjusted in order to add up to the total land area.

### 1.3.2 Estimation and forecasting

##### Forest area

Estimation and forecasting were carried out based on the 1993 and 2005 data.

FRA 2010 categories	Area (1000 hectares)					
	1993	2004	1990	2000	2005	2010
Forest	334	332	335	333	332	331
Other wooded land	45	58	41	52	58	63

### 1.3.3 Reclassification

##### Forest area

All stocked forest lands are reclassified as forests, while all un-stocked forest lands are reclassified as other wooded land.

## 1.4 Data

Table 1a

Categories	Area (000 hectares)
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		1990	2000	2005	2010	2015
	Forest	335	333	332	331	332
	Other wooded land	41	52	58	63	63
	Other land	2444	2435	2430	2426	2425
	... of which with tree cover	N/A	N/A	N/A	N/A	N/A
	Inland water bodies	160	160	160	160	160
	TOTAL	2980.00	2980.00	2980.00	2980.00	2980.00

Table 1b

Categories		Annual forest establishment / loss (000 hectares per year)				...of which of introduced species (000 hectares per year)			
		1990	2000	2005	2010	1990	2000	2005	2010
	Forest expansion	N/A	N/A	2	1.2	N/A	N/A	N/A	N/A
	... of which afforestation	N/A	0.32	1.8	1	N/A	N/A	N/A	N/A
	... of which natural expansion of forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deforestation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which human induced	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Reforestation	N/A	1.7	21.3	6.8	N/A	N/A	N/A	N/A
	... of which artificial	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A

## Tiers

Category	Tier for status	Tier for reported trend
Forest	Tier 1	Tier 1
Other wooded land	Tier 1	Tier 1
Forest expansion	Tier 1	Tier 1
Deforestation	Tier 1	Tier 1
Reforestation	Tier 1	Tier 1

## Tier criteria

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

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	The national classification does not consider the thresholds levels of the height and size of the area for including the forest fund lands into a specific category. The minimum area that is being accounted is 0.1 hectare	N/A
Other wooded land	In absence of any better data, all unstocked forest lands were reclassified as other wooded 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

The serious (big) differences of the national land fund classifications and the FRA classification applied to forest and other wooded land, as well as the lack of national definitions and data/ information on a number of categories of forests and other wooded land, created a difficulty in compiling the data for this table. Nevertheless, the most important issue is the non-controlled (illegal) cuttings, which have taken place in the Republic of Armenia since the State Forest Account 1993, and the following years, which led to the basic changes in forest ecosystems. All the logic of the forestry developments were disturbed and, taking into account that during the last 12 years there were not any forest assessment/ inventory, monitoring and evaluation of the forest condition in the Republic, it was difficult to provide the reliable estimation of the status and forecasting. However, forest management planning process has started from 2004 and by the end of 2015 we will have forest management plans for all forest enterprises and complete data on forest resources.

## 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 outside 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	Forest Code	Ownership classification	2005	Forests and forest lands can be under state, community and private ownership and shall not be subject to alienation to communities, legal persons and citizens.
2	By-laws	Ownership	2005- 2013	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
State ownership	State forests and forest lands
Private ownership	The forest established on the lands owned by communities, legal persons and citizens by their owners shall be regarded as their property.
Communal ownership	The forest established on the lands owned by communities, legal persons and citizens by their owners shall be regarded as their property.
N/A	N/A

## 2.2.3 Original data

Expert assessment of primary forest area (assumed to be 5% of total forest area) and partial data and expert assessment of planted forest area see final reporting table. Remaining forest area is considered other naturally regenerated forest.

## 2.3 Analysis and processing of national data

### 2.3.1 Adjustment

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### 2.3.2 Estimation and forecasting


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### 2.3.3 Reclassification

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## 2.4 Data

Table 2a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Primary forest	17	17	17	17	17






	Other naturally regenerated forest	304	305	305	293	293
	... 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	14	11	10	21	22
	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
TOTAL		335.00	333.00	332.00	331.00	332.00

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 1	Tier 1
Other naturally regenerated forest	Tier 1	Tier 1
Planted forest	Tier 1	Tier 1
Mangroves	Tier 1	Tier 1

## Tier Criteria

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

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	Expert estimate, assumed to be 5% of total forest area.	N/A
Other naturally regenerating forest	N/A	N/A
Planted forest	N/A	N/A
Mangroves	N/A	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	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Fund
2	Forestry Management Planning Project	Forest and OWL areas	2004-2008	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

## 3.2.2 Classification and definitions

National class	Definition
Growing stock	Volume of living stem wood in cubic meters of all trees in the stand
Commercial growing stock	Defined as the part of the growing stock available for wood supply (exploitation) – there is no official (legal /juridical) definition of “Commercial growing stock” in the country (see comments below)
N/A	N/A
N/A	N/A

## 3.2.3 Original data

**Growing stock**

Total growing stock on forest: 41 740 000 m<sup>3</sup> (data for 1993) and 40 670 000 m<sup>3</sup> for 2005.

For other wooded land, an expert estimate of 800 000 m<sup>3</sup> has been used for all reporting years.

FRA Categories / Species name	Growing Stock in Forests		
	(million cubic meters)	(million cubic meters)	Percentage share
	1993	2005	1993
<i>Fagus orientalis</i>	20.68	20.52	49.54%
<i>Quercus macranthera</i>	12.54	11.3	30.04%
<i>Carpinus caucasica</i>	6.00	6.40	14.37%
<i>Pinus silvestris</i>	0.61	0.60	1.46%
<i>Carpinus orientalis</i>	0.45	0.45	1.08%
<i>Juniperus oblonga</i>	0.16	0.17	0.38%
<i>Populus</i>	0.31	0.28	0.74%
<i>Tilia cordata</i>	0.24	0.15	0.57%



<i>Fraxinus excelsior</i>	0.10	0.30	0.24%
<i>Acer tataricum</i>	0.14	0.20	0.34%
Remainder of species	0.51	0.30	1.22%
<b>TOTAL</b>	<b>41.74</b>	<b>40.67</b>	<b>100%</b>

### Biomass stock

Data on growing stock were used as input for the estimations of biomass.

### Carbon stock

Data on biomass stocks were used for estimating carbon in biomass. Forest area from Question 1 was used for estimating carbon in litter and soil.

## 3.3 Analysis and processing of national data

### 3.3.1 Adjustment

### 3.3.2 Estimation and forecasting

### 3.3.3 Reclassification

## 3.4 Data

Table 3a

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




	Total growing stock	42.01	41.12	40.67	40.22	40.67	0.8	0.8	0.8	0.8	0.8
	... of which coniferous	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3b

Category/Species name			Growing stock in forest (million cubic meters)			
Rank	Scientific name	Common name	1990	2000	2005	2010
1 st	Fagus orientalis	Oriental Beech	20.81	20.62	20.52	20.52
2 nd	Quercus macranthera	Caucasian Oak	12.62	11.74	11.3	11.3
3 rd	Carpinus caucasica	European hornbeam	6.04	6.28	6.4	6.4
4 th	Pinus silvestris	Scots pine	0.61	0.6	0.6	0.6
5 th	Carpinus orientalis	Oriental Hornbeam	0.45	0.45	0.45	0.45
6 th	Juniperus oblonga	Common Juniper	0.16	0.17	0.17	0.17
7 th	Populus	Aspen	0.31	0.29	0.28	0.28
8 th	Tilia cordata	Small-leaved Lime	0.24	0.18	0.15	0.15
9 th	Fraxinus excelsior	Ash	0.1	0.23	0.3	0.3
10 th	Acer tataricum	Tatarian Maple	0.14	0.18	0.2	0.2
Remaining			0.51	0.37	0.3	0.3
TOTAL			41.99	41.11	40.67	40.67

**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)	4 cm	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	N/A	There are no limits
Minimum diameter (cm) of branches included in growing stock (W)	3 cm	N/A

Volume refers to above ground (AG) or above stump (AS)	AG	N/A
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**PLEASE NOTE THAT THE DEFINITION OF GROWING STOCK HAS CHANGED AND SHOULD BE REPORTED AS GROWING STOCK DBH 10 CM INCLUDING THE STEM FROM GROUND LEVEL UP TO A DIAMETER OF 0 CM, EXCLUDING BRANCHES.**

Table 3c




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

Table 3d











Category		Biomass (million metric tonnes oven-dry weight)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
	Above ground biomass	27.7	27.1	26.8	26.5	26.8	2.4	2.4	2.4	2.4	2.4
	Below ground biomass	6.38	6.24	6.17	6.11	6.17	1.1	1.1	1.1	1.1	1.1
	Dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		34.08	33.34	32.97	32.61	32.97	3.50	3.50	3.50	3.50	3.50

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	13.03	12.75	12.62	12.48	12.62	1.13	1.13	1.13	1.13	1.13

	Carbon in below ground biomass	3	2.93	2.9	2.87	2.93	0.52	0.52	0.52	0.52	0.52
	<i>Subtotal Living biomass</i>	16.03	15.69	15.52	15.35	15.52	1.65	1.65	1.65	1.65	1.65
	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	9.44	9.38	9.35	9.32	9.35	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	12.34	12.26	12.22	12.18	12.22	N/A	N/A	N/A	N/A	N/A
TOTAL		37.81	37.32	37.09	36.85	37.12	1.65	1.65	1.65	1.65	1.65

## Tiers

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

## Tier criteria

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

### 3.5 Comments on growing stock biomass and carbon

Category	Comments related to data definitions etc	Comments on the reported trend
Total growing stock	N/A	N/A
Growing stock of broadleaved coniferous	N/A	N/A
Growing stock composition	N/A	The overall growing stock composition has not been changed significantly, which allowed the above-mentioned calculations
Net annual increment	N/A	N/A
Above-ground biomass	N/A	N/A
Below-ground biomass	N/A	N/A
Dead wood	N/A	N/A
Carbon in above-ground biomass	N/A	N/A
Carbon in below-ground biomass	N/A	N/A

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

#### Other general comments to the table

For the last 12 years, during 1993-2000 on about 75 % of forest areas of the Republic of Armenia, Fellings /Cutting have exceeded for more than 10 times the Allowable Annual Cut. The last forest management planning on the territory of the Republic (as a whole) was implemented in 2004-2008, and the Forest Fund Account - in 1993. # The background quantitative and qualitative changes have happened in forests, especially as far as the growing stock and species distribution is concerned # The reliable information is available only for the 250 thousand hectares of the of the territory of the Republic, where the forest management planning was implemented in 2000-2007 # The lack of a legal /juridical definition of #Commercial growing stock# is a serious shortcoming # The years 1988 and 1993 were taken as the basic years for the calculation of Growing Stock, and the volume data for 1990 were defined by the linear interpolation method # For the estimation of data for 2000-2005, there were taken the international experts# assumption, that the population of the Republic had used in 1993-1994-1995, as wood-fuel, some 1 (one) million cubic meters of wood annually. This assumption corresponds also to the estimates of local experts and specialists. # During the reporting years, there were no any taking out the wood from the Republic, or importing wood into the country. # The research of the illegal logging in 2002-2004, supported financially by the international bank, has shown that only in 2003 there were taken out of forests 847 thousand m3 of industrial wood and wood fuel, of which only 63 thousand m3 were legally documented. # The Net Annual Increment of forests (State Forest Fund Account, 1993) is 440 thousand m3.

## 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	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Fund
2	Forest Code of RA	Forest and OWL areas	2005	N/A
3	Forest Management Plans for Forest Enterprises and National Parks	Forest cover, forest indices	2004-2008	Information about State Forest Lands
4	N/A	N/A	N/A	N/A

#### 4.2.2 Classification and definitions

National class	Definition
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Forests of special significance	Forests of special significance include: a) forests included in the specially protected areas of nature; b) municipal forests and forests located close to cities; c) forests of recreational and health protection significance; d) border forests and forests of military significance; e) forests having historical and scientific value; f) forests protecting sanitary zones.
Forests of production significance	Forests of production significance are the forests ensuring continuous wood production and those not classified as forests of special and protection significance.
N/A	N/A
N/A	N/A

## 4.2.3 Original data

National Categories / Designated functions	Forests				2008	
	1993	2000	2005		Forest code 2005	1000 ha
	1000 ha	1000 ha	1000 ha			
<b>Forests implementing primarily protective functions</b>	<b>217.4</b>	<b>216.3</b>	<b>223.1</b>		forests of protection significance	133
<b>of which:</b>					forests of special significance	130.4
- protective forest belts along railways and auto-roads	4	3.8	3.8		forests of production significance	68.2
- other protective forest belts	1.2	1.1	1.1			



- forests of important function for the protection of the environment	212.2	211.3	218.2			
<b>Forests implementing primarily social functions</b>	<b>75.7</b>	<b>74.3</b>	<b>75.5</b>			
<b>Forests implementing primarily special functions</b>	<b>60.7</b>	<b>60.4</b>	<b>60.4</b>			
<b>TOTAL</b>	<b>353.8</b>	<b>351</b>	<b>359</b>			<b>331.6</b>

**Note:** According to the Forest Code of 2005, the forests of the Republic of Armenia irrespective of the form of ownership shall be classified by their main special-purpose significance as follows:

1. forests of protection significance;
2. forests of special significance;
3. forests of production significance.

The order of forest classification by main special-purpose significance shall be determined by the Government of the Republic of Armenia.

### 4.3 Analysis and processing of national data

#### 4.3.1 Adjustment

The totals of the original data are substantially different from the total forest area as of Question 1. They were therefore calibrated in order to add up to the forest total. The data for 1993 were calibrated to the 1990 total in order to directly provide data for 1990. Likewise, the 2008 data were calibrated to the 2010 total to provide data for 2010.

<b>Calibration (using 1993 for 1990)</b>	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
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Production function	0	0	0	68.2
Protective functions	205.7	205.0	206.1	133
Social functions	71.6	70.4	69.7	0.0
Special functions	57.4	57.2	55.8	130.4
<b>TOTAL</b>	<b>334.7</b>	<b>332.6</b>	<b>331.6</b>	<b>331.6</b>

#### 4.3.2 Estimation and forecasting

#### 4.3.3 Reclassification

The special functions contain a number of different functions, but the available data do not allow for separate them into the different FRA categories. They are therefore reported as Multiple use, although they in part may have clearly defined specific functions.

### 4.4 Data

Table 4a



Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	N/A	N/A	N/A	68.2	68.2
	Multiple use forest	59.5	52.3	47.6	133	133

Table 4b

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

5 th	N/A	N/A	N/A	N/A
6 th	N/A	N/A	N/A	N/A
7 th	N/A	N/A	N/A	N/A
8 th	N/A	N/A	N/A	N/A
9 th	N/A	N/A	N/A	N/A
10 th	N/A	N/A	N/A	N/A
TOTAL			.00	

2010	
Name of local currency	AMD

Category
<b>Plant products / raw material</b>
1 Food
2 Fodder
3 Raw material for medicine and aromatic products
4 Raw material for colorants and dyes
5 Raw material for utensils handicrafts construction
6 Ornamental plants
7 Exudates
8 Other plant products
<b>Animal products / raw material</b>
9 Living animals
10 Hides skins and trophies
11 Wild honey and beewax
12 Wild meat
13 Raw material for medicine
14 Raw material for colorants

15 Other edible animal products
16 Other non-edible animal products

Table 4c Pre-filled data from FAOSTAT

Year	FRA 2015 category (1000 m <sup>3</sup> u.b.)	
	Total wood removals	...of which woodfuel
1990	35.2	31.8
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	62.2	62.2
1998	0	0
1999	0	0
2000	72.2	59.9
2001	62.2	50.8
2002	68.9	56
2003	75.6	62.3
2004	75	64.3
2005	54.1	48.1
2006	60.3	53.7
2007	45.2	38.6
2008	38.6	34.9
2009	51.4	46.4
2010	38.5	33.8

2011	35.2	31.8
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## Tiers

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

## Tier Criteria

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

## 4.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Production forest	Production was introduced as a separate category in the Forest code 2005, and reported first time in 2010.	For the period 1990-2005 production was not a separate category.
Multiple use forest	Includes: -forests included in the specially protected areas of nature; -municipal forests and forests located close to cities; -forests of recreational and health protection significance; -border forests and forests of military significance; -forests having historical and scientific value; - forests protecting sanitary zones.	N/A
Total wood removals	N/A	N/A
Commercial value of NWFP	N/A	N/A

## Other general comments to the table

Breaking down forests by the designation function categories and corresponding areas was provided on the basis of the Forest Code of the Republic of Armenia (1994), and the results of the State Forest Fund Account (1993). Despite the suggested break down, all forests in Armenia (as a whole), bear the protective functions, taking into account the mountainous landscape, strong relief fragmentation, and the danger of the erosion, as well as the function of the conservation of biodiversity, which is also very important. The Table in the section 3.4 shows the percentage of other specific functions, which are being implemented, additionally to the primary function with regard to the total area. Due to the above-described situation, the main cuttings are forbidden on the total forest land of Armenia, according to the Governmental decision. In fact, there are no sufficient areas for the main cuttings, but still some small plots may correspond to demands of commercial fellings. The reforestation is planned in the high-forest areas of Armenia available for wood supply, which are estimated as of 67,4 thousand hectares.

## 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	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Fund

2	Forest Code of RA	Forest and OWL areas	2005	N/A
3	Forest Management Plans for Forest Enterprises and National Parks	Forest cover, Forest indices	2000-2005	Information about State Forest Lands
4	N/A	N/A	N/A	N/A

### 5.2.2 Classification and definitions

National class	Definition
Forests of protection significance	Forests of protection significance include: a) forests in the water protection zones of water bodies; b) forests located on steep slopes (more than 30 degree); c) forest belt with the width of 200 m on the upper and lower timberline; d) forests growing in semi-desert, steppe and forest-steppe areas; e) forests within the radius of 100 m surrounding botanical gardens, zoological parks and arboretums
Forests of special significance	Forests of special significance include: a) forests included in the specially protected areas of nature; b) municipal forests and forests located close to cities; c) forests of recreational and health protection significance; d) border forests and forests of military significance; e) forests having historical and scientific value; f) forests protecting sanitary zones.
Forests of production significance	Forests of production significance are the forests ensuring continuous wood production and those not classified as forests of special and protection significance.
N/A	N/A

### 5.2.3 Original data

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## 5.3 Analysis and processing of national data

### 5.3.1 Adjustment

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### 5.3.2 Estimation and forecasting





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### 5.3.3 Reclassification

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## 5.4 Data

### Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
	Protection of soil and water	N/A	N/A	N/A	N/A	N/A
	... of which production of clean water	N/A	N/A	N/A	N/A	N/A
	... of which coastal stabilization	N/A	N/A	N/A	N/A	N/A
	... of which desertification control	N/A	N/A	N/A	N/A	N/A
	... of which avalanche control	N/A	N/A	N/A	N/A	N/A
	... of which erosion, flood protection or reducing flood risk	N/A	N/A	N/A	N/A	N/A
	... of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

Other
N/A

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values	N/A	N/A	N/A	N/A	N/A
...of which public recreation	N/A	N/A	N/A	N/A	N/A
...of which carbon storage or sequestration	N/A	N/A	N/A	N/A	N/A
...of which spiritual or cultural services	N/A	N/A	N/A	N/A	N/A



...of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A
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## Tiers

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

## Tier criteria

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

## 5.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Protection of soil and water	N/A	N/A
Production of clean water	N/A	N/A
Coastal stabilization	N/A	N/A
Desertification control	N/A	N/A
Avalanche control	N/A	N/A
Erosion, flood protection or reducing flood risk	N/A	N/A

Other protective functions	N/A	N/A
Ecosystem services, cultural or spiritual values	N/A	N/A
Public recreation	N/A	N/A
Carbon storage or sequestration	N/A	N/A
Spiritual or cultural services	N/A	N/A
Other ecosystem services	N/A	N/A

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

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

Documents for this question:

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

### 6.1 Categories and definitions

Category	Definition
Conservation of biodiversity	Forest area designated primarily for conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.

### 6.2 National data

#### 6.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Fund
2	Forest Code of RA	Forest and OWL areas	2005	N/A
3	Forest Management Plans for Forest Enterprises and National Parks	Forest cover, forest indices	2004-2008	Information about State Forest Lands
4	N/A	N/A	N/A	N/A

#### 6.2.2 Classification and definitions

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

#### 6.2.3 Original data

See 4.2.3.
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## 6.3 Analysis and processing of national data

### 6.3.1 Adjustment

See 4.3.1.



### 6.3.2 Estimation and forecasting

### 6.3.3 Reclassification

See 4.3.3.

## 6.4 Data

Table 6

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

### Tiers

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

### Tier criteria

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

## 6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
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Conservation of biodiversity	N/A	N/A
Forest area within protected areas	Protected areas are included under Multiple use.	N/A

### Other general comments to the table

Breaking down forests by the designation function categories and corresponding areas was provided on the basis of the Forest Code of the Republic of Armenia (1994), and the results of the State Forest Fund Account (1993). Despite the suggested break down, all forests in Armenia (as a whole), bear the protective functions, taking into account the mountainous landscape, strong relief fragmentation, and the danger of the erosion, as well as the function of the conservation of biodiversity, which is also very important. The Table in the section 3.4 shows the percentage of other specific functions, which are being implemented, additionally to the primary function with regard to the total area. Due to the above-described situation, the main cuttings are forbidden on the total forest land of Armenia, according to the Governmental decision. In fact, there are no sufficient areas for the main cuttings, but still some small plots may correspond to demands of commercial fellings. The reforestation is planned in the high-forest areas of Armenia available for wood supply, which are estimated as of 67,4 thousand hectares.

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

Documents for this question:

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

### 7.1 Categories and definitions

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

### 7.2 National data

#### 7.2.1 Data sources

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

#### 7.2.2 Classification and definitions

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

#### 7.2.3 Original data

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### 7.3 Analysis and processing of national data

#### 7.3.1 Adjustment

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## 7.3.2 Estimation and forecasting

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## 7.3.3 Reclassification

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## 7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	2010
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
Total	N/A	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
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Invasive species	Tier 3: Systematic assessment in forest inventory or other survey (e.g. by conservation department) within the last 5 years) Tier 2: Systematic assessment in forest inventory or other survey (e.g. by conservation department conducted more than 5 years ago) Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
------------------	--	---

## 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	National Statistical Service of the Republic of Armenia, Yearbook	Forest disturbances by fire	1998- 2003	Partial coverage
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

#### 8.2.2 Classification and definitions

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

## 8.2.3 Original data

## 8.3 Analysis and processing of national data

## 8.3.1 Adjustment

## 8.3.2 Estimation and forecasting

## 8.3.3 Reclassification

## 8.4 Data

Table 8a





Category		000 ha, number of fires									
		2003		2004		2005		2006		2007	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	3.9	4	0.0135	2	0.0454	10	0.3336	10	0.0125	1
	... of which forest area burned	0.4	N/A	0.0015	N/A	0.0201	N/A	0.2992	N/A	0.0125	1
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	0.019	9	18.7	17	0.8106	50	0.4723	56	0.2235	63
	... of which forest area burned	0.0152	N/A	0.0075	N/A	0.7751	N/A	0.4212	N/A	0.1708	N/A

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
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1	Common lackey (Malacosoma neustria L.)	2007	24.7
1	Brown-tail moth (Euproctis chrysorrhoea L.)	2008	7.7
1	Brown-tail moth (Euproctis chrysorrhoea L.)	2007	4.9
2	Oak mildew (microshaera alphitoides)	2012	3.5
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Outbreak category
1 Insects
2 Diseases
3 Severe weather events

## Tiers

Category	Tier for status	Tier for trend
Area affected by fire	Tier 1	Tier 1
<ul style="list-style-type: none"> <li>Insects</li> <li>Diseases</li> <li>Severe weather events</li> </ul>	Tier 1	Tier 1

## Tier criteria

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

## 8.5 Comments

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

Other general comments to the table
N/A

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

Documents for this question:

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

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

Table 9

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

Tiers

Category	Tier for reported trend
Reduction in canopy cover	Tier 1

Tier criteria

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

Comments

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

Other general comments

--

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

Documents for this question:

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

### 10.1 Categories and definitions

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

### 10.2 National data

#### 10.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forest Code of the RA	N/A	2005	N/A
2	National Forest Policy and Strategy of RA	Institutions and forest legislation	2005	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
Forest policy statement with national scope	A document describing the strategic ways for rehabilitation of degraded forest ecosystems, sustainable use, and development processes of useful properties of the forest.
National forest programme	Program of activities aimed at supporting protection and sustainable use of forest resources at local, national and global levels by stimulating national and international cooperation to manage, protect and rehabilitate forest resources and soil for the benefits of present and future generations
N/A	N/A
N/A	N/A

## 10.2.3 Original data

## 10.3 Data

Table 10

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

## 10.4 Comments

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

Other general comments

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

Documents for this question:

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

### 11.1 Categories and definitions

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

### 11.2 National data

#### 11.2.1 Data sources

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

Table 11

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

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

Other general comments

--



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

Documents for this question:

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

### 12.1 Categories and definitions

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

### 12.2 National data

#### 12.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Simultaneous State Forest Account 1993 of the Republic of Armenia, Yerevan 1993	Forest and OWL areas	1983, 1988	Information about State Forest Fund
2	Forest Code of RA	Forest and OWL areas	2005	N/A
3	Forest Management Plans for Forest Enterprises and National Parks	Forest cover, forest indices	2004- 2008	Information about State Forest Lands
4	N/A	N/A	N/A	N/A

#### 12.2.2 Classification and definitions

National class	Definition
Forests of protection significance	Forests of protection significance include: a) forests in the water protection zones of water bodies; b) forests located on steep slopes (more than 30 degree); c) forest belt with the width of 200 m on the upper and lower timberline; d) forests growing in semi-desert, steppe and forest-steppe areas; e) forests within the radius of 100 m surrounding botanical gardens, zoological parks and arboretums.
Forests of special significance	Forests of special significance include: a) forests included in the specially protected areas of nature; b) municipal forests and forests located close to cities; c) forests of recreational and health protection significance; d) border forests and forests of military significance; e) forests having historical and scientific value; f) forests protecting sanitary zones.

Forests of production significance	Forests of production significance are the forests ensuring continuous wood production and those not classified as forests of special and protection significance.
N/A	N/A

### 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



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### 12.3.3 Reclassification

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## 12.4 Data

Table 12

Categories		Forest area 2010 (000 ha)
	Forest area intended to be in permanent forest land use	369.1
	... of which permanent forest estate	331

### Tiers

Category	Tier for status
Forest area intended to be in permanent forest land use	Tier 1
Permanent forest estate	Tier 1

### Tier Criteria

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

Permanent forest estate	<b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years <b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years <b>Tier 1</b> : Other
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## 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	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

##### 13.2.2 Classification and definitions

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

#### 13.3 Data

Table 13a

Category	% of total forest area	Most recent year	Check all boxes that apply					
			Continuous	Periodic	Permanent ground plots	Temporary ground plots	Aerial/ remote sensing sample based	Aerial/ remote sensing full coverage
Forest inventory		1993	no	no	no	no	no	no
Other field assessments	N/A	N/A	no	no	no	no	no	no
Updates to other sources	N/A	N/A	no	no	no	no	no	no
Expert estimate	N/A	N/A						

Table 13b

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

Other type of forest reporting
N/A

### 13.4 Comments

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

Other general comments

--

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

Documents for this question:

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

### 14.1 Categories and definitions

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

### 14.2 National data

#### 14.2.1 Data sources

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

### 14.3 Data

Table 14a

Forest plan type	Forest area 2010 (000 ha)
Forest area with management plan	200
... of which for production	68
... of which for conservation	132

Table 14b

Indicate which (if any) of the following are required in forest management plans in your country	
1 Soil and water management	no

2 High conservation value forest delineation	no
3 Social considerations community involvement	no

Table 14c

<b>Percent of area under forest management plan that is monitored annually</b>	<b>N/A</b>
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## Tiers

<b>Category</b>	<b>Tier for status</b>
Forest area with management plan	Tier 1
Percent of area under forest management plan that is monitored annually	Tier 2

## Tier criteria

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

## 14.4 Comments

<b>Category</b>	<b>Comments</b>
Forest area with management plan	N/A
N/A	N/A
N/A	N/A

## Other general comments

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

### 15.2 Comments

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

Other general comments

--



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

Documents for this question:

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

### 16.1 Categories and definitions

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

### 16.2 Data

Table 16a













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

Table 16b

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

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

## Tier criteria

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

## Tiers

Category	Tier for status
<b>International</b> forest management certification	Tier 1
<b>Domestic</b> forest management certification	Tier 1

## 16.3 Comments

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

## Other general comments

--

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

Documents for this question:

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

### 17.1 Categories and definitions

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

### 17.2 National data

#### 17.2.1 Data sources

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

### 17.3 Data

Table 17

Category	Revenues / expenditures (000 local currency)		
	2000	2005	2010
Forest revenue	537980	635711	382569
Public expenditure on forestry	637680	1119951	1130052

	2000	2005	2010
Name of Local Currency	Dram	Dram	Dram

**17.4 Comments**

Category	Comments related to data definitions etc
Forest revenue	N/A
Public expenditure on forestry	N/A
Other general comments	N/A

Other general comments

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

Documents for this question:

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

### 18.1 Categories and definitions

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

### 18.2 National data

## 18.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forest Code	Ownership classification	2005	Forests and forest lands can be under state, community and private ownership and shall not be subject to alienation to communities, legal persons and citizens.
2	By-laws	Ownership	2005-2008	N/A
3	Land Code	Ownership	N/A	N/A
4	N/A	N/A	N/A	N/A

## 18.2.2 Classification and definitions

National class	Definition
State ownership	State forests and forest lands
Private ownership	The forest established on the lands owned by communities, legal persons and citizens by their owners shall be regarded as their property.
Communal ownership	The forest established on the lands owned by communities, legal persons and citizens by their owners shall be regarded as their property.
N/A	N/A

## 18.2.3 Original data

Up until 2005, all forests in Armenia were under public ownership.
--

## 18.3 Analysis and processing of national data

## 18.3.1 Adjustment

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## 18.3.2 Estimation and forecasting

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## 18.3.3 Reclassification

## 18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	2000	2005	2010
	Public ownership	335	333	332	331
	... of which owned by the state at national scale	335	333	332	331
	... of which owned by the state at the sub-national government scale	0	0	0	0
	Private ownership	0	0	0	0
	... of which owned by individuals	0	0	0	0
	... of which owned by private business entities and institutions	0	0	0	0
	... of which owned by local, tribal and indigenous communities	0	0	0	0
	Unknown ownership	0	0	0	0
TOTAL		335.00	333.00	332.00	331.00

## Tiers

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

## Tier criteria

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

Ownership	Tier 3: National forestry statistics registers of land titles or maps on land ownership or all forest area under one ownership category that is five years old or less. Tier 2: National forestry statistics registers of land titles or maps on land ownership or questionnaires that are more than five years old. Tier 1: Other	<b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other
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Table 18b - Holder of management rights of public forests

Categories	Forest area (000 hectares)			
	1990	2000	2005	2010
Public Administration	335	333	332	331
Individuals	0	0	0	0
Private companies	0	0	0	0
Communities	0	0	0	0
Other	0	0	0	0
TOTAL	335.00	333.00	332.00	331.00

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

## 18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	N/A	N/A
Private ownership	N/A	N/A
Unknown ownership	N/A	N/A
Management rights	N/A	N/A

Other general comments to the table



N/A
-----

## 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	ILO. 2003. Employment trends and prospects in the European forest sector. By Peter Blombäck, Peter Poschen, Mattias Lövgren. Discussion paper ECE/TIM/DP/29, Geneva, Switzerland. Available at: <a href="http://www.unece.org/timber/docs/dp/dp-29.pdf">http://www.unece.org/timber/docs/dp/dp-29.pdf</a>	1990, 2000	Statistics collected through the questionnaire officially submitted to ILO	N/A
2	FAO. 2008. Contribution of the forestry sector to national economies, 1990-2006, by A. Lebedys. Forest Finance Working Paper FSFM/ACC/08. FAO, Rome. <a href="http://www.fao.org/docrep/011/k4588e/k4588e00.htm">http://www.fao.org/docrep/011/k4588e/k4588e00.htm</a>	2005	Secondary data source	N/A
3	National Statistical Service of the Republic of Armenia. Environment and natural resources in RA for 2007. Available at: <a href="http://www.armstat.am/file/article/ecol_07_5.pdf">http://www.armstat.am/file/article/ecol_07_5.pdf</a>	2000, 2005	Official statistics	N/A
4	N/A	N/A	N/A	N/A

#### 19.2.2 Classification and definitions

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

### 19.2.3 Original data

Original data on employment in primary production of goods are presented directly in the reporting table below.

## 19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	2000	2005	2010
	Employment in forestry	5.3	2.3	2	2
	... of which female	N/A	N/A	N/A	N/A

## 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)	2938	dram	2011

### 20.3 Comments

Category	Comments
N/A	N/A

Other general comments

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

Documents for this question:

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

### 21.1 Categories and definitions

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

### 21.2 National data

#### 21.2.1 Data sources

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

### 21.3 Data

Table 21a

Category	Forest area (000 ha)	
	2020	2030
Government target/aspiration for forest area	337	350

Table 21b

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

### 21.4 Comments

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

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Forests earmarked for conversion	N/A
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Other general comments

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