

GLOBAL FOREST RESOURCES ASSESSMENT 2015

COUNTRY REPORT

Ukraine

Rome, 2014

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

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

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Introductory Text

Place an introductory text on the content of this report

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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	Forest Code of the Ukraine	Forest	2006	N/A
2	Land Code of the Ukraine	Other land area	2002	N/A

3	Manual for Management of the State Forest Cadastre and Primary Inventory of Forests	Forest	2007	N/A
4	State Land Cadastre for 2003-2007	Other land area	N/A	N/A
5	State Forest Cadastre for 1988-2011	Forest	1988-2011	N/A
6	FAOSTAT	Total country area, Land area, Inland water bodies	1990, 2000	N/A
7	About forestry activities (statistical bulletin)	Volume of afforestation/ reforestation/natural regeneration	yearly	N/A

1.2.2 Classification and definitions

National class	Definition
Forest	The unity of land, vegetation (where trees and bushes are dominant), animals, microorganisms and other components of nature, the developments of which are biologically inter-related and which influence surrounding environment
Forest Fund	All forests on the territory of the Ukraine are parts of the Forest Fund. The FF includes shelterbelts, protective plantations along railways and motorways, canals, hydro-technical constructions and water bodies. The FF also includes land parcels not covered with forest vegetation but reserved for forest management needs
a) Forest land	Areas covered or not covered by forest vegetation (trees and bushes), areas which have to be afforested (clear cut areas, burned areas, sparse stands and bare land), forest roads, openings, fire-breaks, un-closed plantations and nurseries
- Land covered by forest vegetation	Land areas covered by forest vegetation which are occupied by young stands with the density of 0.4 (around 40% canopy cover) and higher and stands of other age groups with the density of 0.3 (around 30% canopy cover) and higher
- Land not covered by forest vegetation	Land areas not covered by forest vegetation but reserved for forest restoration (sparse vegetation, burned areas, dead stands, clear cut areas, glades and bare lands)
b) Non-forest land	Areas occupied by buildings which are used for forest management needs, electric power transmission lines, pipelines and underground communication cables
Vegetation which is not included in the FF	All types of vegetation within populated areas, which are not included in the forest category; individual trees and groups of trees, bushy vegetation on agricultural lands, lands of private households, lands adjacent to private households, summer cottages and gardens
Afforestation	Establishment of forest through planting or sowing on land that, until then, was not classified as forest.
Reforestation	Re-establishment of forest through planting sowing on land classified as forest.

Natural regeneration	Natural regeneration on land classified as forest
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1.2.3 Original data

FRA 2005 categories	National categories
Forest	“Forest land” incl: field protective belts, protective forest plantations along railways, motorways and canals
Other Wooded Land (OWL)	“Forest land” covered with bushes and scrubland
Other Land with Tree Cover (OLWTC)	Urban parks and perenneal plantations <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

Classes	Area (1000 ha)		
	1988	1996	2002
Forest	9213	9458	9536
Other wooded land	26	36	n.a
Other land	48697	48442	n.a
...of which with tree cover ¹⁾	934	916	n.a
Inland water bodies	2419	2419	n.a
TOTAL	60355	60355	n.a

Afforestation, Reforestation, Natural Expansion of Forests

	1988	1989	1990	1991	1992	Total for 5 years	Average annual value
	hectares						
Afforestation	17100	17100	17205	12600	11674	75679	15136
Reforestation	35400	39103	35352	31204	28652	169711	33942
...of which on areas previously planted							
Natural regeneration of forest	2000	2000	2106	2000	2970	11076	2215

	1998	1999	2000	2001	2002	Total for 5 years	Average annual value
	hectares						
Afforestation	4668	5925	5187	4260	5000	25040	5008
Reforestation	30152	29867	29802	34267	37394	161482	32296
...of which on areas previously planted							
Natural regeneration of forest	6665	8715	8004	8315	8460	40159	8032

	2003	2004	2005	2006	2007	Total for 5 years	Average annual value

	hectares							
Afforestation	3787	3643	9500	19000	26670	62600	12520	
Reforestation	38353	42596	36355	35008	33381	185693	37139	
...of which on areas previously planted								
Natural regeneration of forest	9907	11293	12783	12682	13573	60238	12048	

1.3 Analysis and processing of national data

1.3.1 Adjustment

The FAOSTAT figure for Inland water is used for the reporting to make the total country area tally with the official total country area (FAOSTAT). Other land (1990, 2000 and 2005) is calculated as Total country area less: Forest, Other wooded land and Inland water bodies.

1.3.2 Estimation and forecasting

The Estimation for 1990 is made by linear interpolation (1988 and 1996). Forecasting Other wooded land and Other land with tree cover for 2000 is made by linear extrapolation (1988-1996), the forest area is interpolated using forest area 1996-2002. Forest area 2005 is linearly extrapolated using forest area (1996-2002). Forest area 2010 is linearly extrapolated using forest area (2006-2007). Based on expert estimates, the forecasted values for Other wooded land and Other land with tree cover in 2010 are equal to those in 2000 and 2005.

	Area 1000 hectares					
	1988	1990	1996	2000	2005	2010
Forest	9213	9274	9458	9510	9575	9705

Other wooded land	26	29	36	41	41	41
Other land	48696	48632	48441	48384	48161	48189
...of which with tree cover ¹⁾	934	930	916	907	907	907
Inland water bodies ²⁾	2435	2435	2435	2435	2435	2435
TOTAL country area	<i>60370</i>	60370	<i>60370</i>	60370	60370	60370

1.3.3 Reclassification

1.4 Data

Table 1a

Categories		Area (000 hectares)				
		1990	2000	2005	2010	2015
	Forest	9274	9510	9575	9548	9657
	Other wooded land	28	41	41	26	26
	Other land	48633	48384	48322	48364	48255
	... of which with tree cover	930	907	907	907	907
	Inland water bodies	2420	2420	2417	2417	2417
	TOTAL	60355.00	60355.00	60355.00	60355.00	60355.00

Table 1b

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

CFRQ	... of which afforestation	15.136	5.008	12.52	24.2	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	33.942	32.296	37.139	39.2	N/A	N/A	N/A	N/A
CFRQ	... of which artificial	33.942	32.296	37.139	39.2	N/A	N/A	N/A	N/A

Tiers

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

Tier criteria

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

1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends

Forest	The minimum area that is being accounted for as a forest is 0.1 hectares Answer on the remark: Ukraine did not provide changes in the table 1.3.2. in comparing with the FRA2010. We corrected data for 2010 and provide a new data for 2015 in the table 1.4. In the table 1.4 it is provided real figure of forest area for year 2010. Decreasing estimation of forest area for 2015 depends on decreasing level of afforestation work in Ukraine due to decreasing level of state financial support on afforestation and also due to problems with sufficient level of areas for afforestation in Ukraine. In the table 1.4. it is provided whole forest area of Ukraine. Theoretically it is possible to give information about forest plots with area 0,1-0,5 ha but it is rather difficult. According to an expert estimation share of plots with an area 0,1-0,5 ha in a total forest area of Ukraine is very small.	Forest areas are changed due creation new forest on in-arable and low productive agricultural lands.
Other wooded land	N/A	Ara of bushes and shrubs is decreased due to the data of state forest cadastre
Other land	N/A	N/A
Other land with tree cover	N/A	N/A
Inland water bodies	FAOSTAT data.	N/A
Forest expansion	There are processes of natural expansions of forest in Ukraine but until today there are no available information about this process	N/A
Deforestation	N/A	N/A
Reforestation	Additionally to an artificial regeneration, natural regeneration of forest is getting more significance in Ukraine. The area of forest regenerated through those way in 1990 was 2215 ha, in 2000 -8032 ha and in 2005 - 12048 ha	N/A

Other general comments to the table

It was foreseen in the period of 2009-2013 to carry out national inventory based on statistical sampling method and European standards. Before this work it should be developed theoretical and methodological normative documents, provided pilot methodology testing and results estimation at regional level. Now it was created department of national forest inventory within Forest management and design enterprise. NFI providing in Ukraine is reasonable and possible at first time as experimental work on pilot territories trough inviting educational and scientific entities keeping in mind elaborating methodology and its providing based on national features. Because of financial crises and limited financing in years 2009 and 2010 NFI will be provided as experimental work in Sumy and Ivano-Frankivsk regions on area around 1 mio ha.

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	State Forest Cadastre for 1988-2002	Forest	1988-2002	N/A
2	Expert assessment	Other naturally regenerated forest, Planted forest	All years	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
Naturally regenerated forest	Stands established by nature regeneration from seeds
Planted forests	Stands established by planting or sowing
Coppice forest	Stands regenerated naturally from sprouting
N/A	N/A

2.2.3 Original data

2.3 Analysis and processing of national data

2.3.1 Adjustment

2.3.2 Estimation and forecasting

2.3.3 Reclassification

Area of primary forest is taken as a permanent value corresponding to previous questionnaires. Other naturally regenerated forest - this category is equal to half of forest area minus area of primary forests. Planted forest is assumed to be 50% of the total forest area.

2.4 Data

Table 2a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Primary forest	59	59	59	59	59
	Other naturally regenerated forest	4578	4696	4729	4671	4738
	... 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	4637	4755	4787	4818	4860
	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
TOTAL		9274.00	9510.00	9575.00	9548.00	9657.00

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
0	0	0	0	0	0	0	0	0

Table 2c

Categories	Area (000 hectares)				
	1990	2000	2005	2010	2015
Mangroves (forest and OWL)	0	0	0	0	0
... of which planted	0	0	0	0	0

Tiers

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

Tier Criteria

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

2.5 Comments

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	As primary the forests without any forest management were reported, mostly because of difficult to access (mainly in Carpathians) owing to poor forest road network in this region.	The area of primary forest has been assumed as unchanged (59 000 ha according to FRA 2000).
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	State Forest Cadastre for 1988-2011	Growing stock and Growing stock composition	1988-1996	N/A
2	Lakida P., Nilsson S., Shvidenko A. Estimation of Forest Phytomass for Selected Countries of the Former European USSR / WP - 95 – 79. - Laxenburg, IIASA, 1995. – 33 p.	Biomass expansion factors Biomass to carbon recalculation factors, Carbon in soil and humus	N/A	N/A
3	N/A	N/A	N/A	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	Volume over bark of all living trees of forest fund more than 2 cm in diameter at breast height. Includes the stem from ground level.
N/A	N/A
N/A	N/A
N/A	N/A

3.2.3 Original data

National data	Growing stock (million m ³)	
	1988	1996
Forest growing stock	1320	1696

3.3 Analysis and processing of national data

3.3.1 Adjustment

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3.3.2 Estimation and forecasting

For Growing stock estimation linear interpolation and extrapolation were applied
Growing stock composition

	Interval (1996- 1988)	1988	1996	Difference	Difference per year	Estimation 1990	Estimation 2000	Estimation 2005	Estimation 2010
Pine	8	502	645	143	17,875	538	717	762	806
Oak	8	277	355	78	9,75	297	395	420	443
Spruce	8	164	211	47	5,875	176	235	250	264
Beech	8	149	192	43	5,375	159	214	228	240
Alder	8	54	69	15	1,875	58	76	81	86
Birch	8	53	68	15	1,875	57	75	80	85
Fir	8	30	39	9	1,125	32	43	46	49
Hornbeam	8	25	29	4	0,5	26	31	32	34
Ash	8	20	26	6	0,75	21	29	31	33
Acacia	8	15	22	7	0,875	17	25	27	30
Remaining	8	31	40	9	1,125	33	44	47	49
Total		1320	1696	376	47	1414	1884	2004	2119

Calculation of biomass are made according to method given in following publication: Lakida P., Nilsson S., Shvidenko A. Estimation of Forest Phytomass for Selected Countries of the Former European USSR /WP - 95 – 79. - Laxenburg, IIASA, 1995. – 33 p.

Calculation of carbon made accordingly with Lakida P., Nilsson S., Shvidenko A. Estimation of Forest Phytomass for Selected Countries of the Former European USSR /WP - 95 – 79. - Laxenburg, IIASA, 1995. – 33 p.

3.3.3 Reclassification

3.4 Data

Table 3a

Category		Growing stock volume (million m ³ over bark)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
	Total growing stock	1414	1884	2004	2100	2196	N/A	N/A	N/A	1	1
	... of which coniferous	748	997	1061	1041	1086	N/A	N/A	N/A	N/A	N/A
	... of which broadleaved	666	887	943	1059	1110	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	Pinus	Pine	538	717	762	791
2 nd	Quercus	Oak	297	395	420	472
3 rd	Picea	Spruce	176	235	250	211
4 th	Fagus	Beech	159	214	228	232
5 th	Alnus	Alder	58	76	81	93
6 th	Betula	Birch	57	75	80	92
7 th	Abies	Fir	32	43	46	36
8 th	Carpinus	Hornbeam	26	31	32	35
9 th	Fraxinus	Ash	21	29	31	43
10 th	Robinia	Acacia	17	25	27	36
Remaining			33	44	47	59
TOTAL			1414.00	1884.00	2004.00	2100.00

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)	2	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	2	N/A
Minimum diameter (cm) of branches included in growing stock (W)	N/A	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	4	4	4	4	4
	... of which coniferous	4.7	4.7	4.7	4.8	4.8
	... of which broadleaved	3	3	2.9	2.7	2.8

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	803	1066	1146	1226	1267	N/A	N/A	N/A	N/A	N/A
	Below ground biomass	194	258	277	288	297	N/A	N/A	N/A	N/A	N/A
	Dead wood	N/A	N/A	N/A	53	55	N/A	N/A	N/A	N/A	N/A
TOTAL		997.00	1324.00	1423.00	1567.00	1619.00	.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	402	533	573	620	640	N/A	N/A	N/A	N/A	N/A
	Carbon in below ground biomass	97	129	138.5	138	143	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Living biomass</i>	499	662	711.5	758	783	N/A	N/A	N/A	N/A	N/A
	Carbon in dead wood	3.5	4.5	4.8	27	N/A	N/A	N/A	N/A	N/A	N/A
	Carbon in litter	49.1	50.3	50.5	50.6	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Subtotal Dead wood and litter</i>	52.6	54.8	55.3	55.6	N/A	N/A	N/A	N/A	N/A	N/A
	Soil carbon	231.8	237.8	238.6	239.4	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		783.40	954.60	1005.40	1075.00	783.00	.00	.00	.00	.00	.00

Tiers

Variable/category	Tier for status	Tier for trend
Total growing stock	Tier 2	Tier 2
Net annual increment	Tier 2	Tier 2
Above ground biomass	Tier 1	Tier 1
Below ground biomass	Tier 1	Tier 1
Dead wood	Tier 2	Tier 2
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	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	It is given total volume of stands growing stock. Answer on remarks: 1. Units are million m3. Estimation for 2005 and 2010 is made according to the state forest cadastre at 01.01.2011. and 2002. 2. Difference can be explained that in table 3.3.2. is provided estimation figures and in tables 3a and 3b corrected factual figures. 3. Answer is no. We can not provide information on growing stock of trees with diameter 2-10 cm. 4.	According to a data of state forest cadastre at 1.01.2011
Growing stock of broadleaved coniferous	According to a data of state forest cadastre at 1.01.2011	N/A

Growing stock composition	In table 3a it is given a total growing stock in forests. Following the FRA definitions and Reporting Guidelines total volume of growing stock and growing stock of commercial species in Ukraine are equal. Growing stock of not commercial species (taking in Red book) is about 0,1 mio m3.	N/A
Net annual increment	Is estimated as annaul increament minus volume of dead wood	N/A
Above-ground biomass	In Ukraine there is not data for reporting according to these categories. Official reporting in Ukraine permit receiving data about above-ground biomass which include data about stem, and merchantable wood from crown.	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

N/A

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	Forest Code of the Ukraine	Forest	2006	N/A
2	State Forest Cadastre for 1988-2011	Forest	1988-1996	N/A
3	Order of dividing forest by target use and creation especially protection plots	Forest	2007	N/A
4	State Cadastre of territories and objects of Nature Reserve Fund	N/A	2006-2007	N/A

4.2.2 Classification and definitions

National class	Definition
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Forests of the second group	Forests with ecological and exploitative functions managed under the limited use regime with the aim to maintain their protective functions as well as continuous and inexhaustible use
Forests of the first group including:	N/A
Forests primarily fulfilling water protective functions	Protective forest belts along rivers and around lakes, dams and other water bodies. Forest belts protecting spawning areas of commercially valuable fish species
Forests primarily fulfilling protective functions	Forests preventing soil erosion, protective forest belts along rail- and motorways, especially valuable forest massifs, protective forest belts of state importance, forests of steppe and forest-steppe zones and mountainous regions with highly important environment protection function
Forests with special functions	Forests within specifically protected territories (nature reserves -‘zapovedniki’, national parks, natural monuments, reserved areas, regional landscape parks), forests of scientific or historical importance and sub-alpine communities of woody plants
Forests fulfilling sanitary-hygienic and recreational functions	Forests near population centers, green belts around population centers and industrial enterprises, forests of the first and second belts within sanitary watershed zones and forests within sanitary protection districts of recreational territories
N/A	After year 2006
Forests primarily fulfilling protective functions	Forest with mainly water, soil and other protective function.
Forests fulfilling health-improving and recreational functions	Forest with mainly sanitary-hygienic, health-improving and recreational functions.
Forests primarily fulfilling nature protection, scientific, historic-cultural functions	Forest with especially nature protection, esthetic, scientific functions.
Commercial forest	All other forests

4.2.3 Original data

FRA categories	Area 1000 hectares	
	1988	1996
Production	4423	4533
Protection of soil and water	2764	2878
Conservation of Biodiversity	276	248
Social services	1750	1799
Total forest	9213	9458

4.3 Analysis and processing of national data

4.3.1 Adjustment

4.3.2 Estimation and forecasting

For 1990, linear Interpolation of (1988-1996) was applied. The percentage of primary function in 1996 was applied to forest area in 2000 and 2005.

FRA categories	Area 1000 hectares				
	1988	1990	1996	2000	2005
Primary function					
Production	4423	4450	4533	4558	4589
Total forest	9213	9274	9458	9510	9575

4.3.3 Reclassification

Reclassification pattern (national classes according to classification after 2006)

National category	FRA Categories	
	Production	Multiple use
Commercial forest	100%	0%
Total	100%	

4.4 Data

Table 4a

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Production forest	4450	4558	4589	3362	3362
	Multiple use forest	4555	4703	4735	4830	4939

Table 4b

Rank	Name of product	Key species	Commercial value of NWFP removals 2010 (value 1000 local currency)	NWFP category
1 st	Berries	N/A	N/A	1
2 nd	Reed	N/A	N/A	8
3 rd	Tree sap	N/A	N/A	1
4 th	Hay	N/A	N/A	2
5 th	New year tree	N/A	N/A	8
6 th	Mushrooms	N/A	N/A	1
7 th	Medical herbs	N/A	N/A	3
8 th	Wild fruits	N/A	N/A	1
9 th	Green waste	N/A	N/A	2
10 th	Nuts	N/A	N/A	1
TOTAL			.00	

2010	
Name of local currency	UAH

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	17510.3	9520
1991	N/A	N/A
1992	N/A	N/A
1993	N/A	N/A
1994	N/A	N/A
1995	6318.3	1898
1996	6252	1876
1997	6053	1810

1998	8453	1810
1999	7920.3	1766
2000	9859.3	4058
2001	9889	4070
2002	12280.1	7423
2003	13753.9	8118
2004	14861.8	8396
2005	14606.3	8145
2006	15848.6	8941
2007	16884.3	9519
2008	16884.3	9519
2009	14221.4	8039
2010	16145.6	8609
2011	17510.3	9520

Tiers

Category	Tier for status	Tier for reported trend
Production forest	Tier 3	Tier 3
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	It is given data for forests available for wood supply	N/A
Multiple use forest	N/A	N/A

Total wood removals	The total of industrial round wood removals and woodfuel removals	N/A
Commercial value of NWFP	This information is not available	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	State Forest Cadastre for 1988-2011	Protected areas	1988-2011	N/A

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

5.2.2 Classification and definitions

National class	Definition
N/A	N/A

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

--

5.4 Data

Table 5a

Categories		Forest area (1000 hectares)				
		1990	2000	2005	2010	2015
	Protection of soil and water	N/A	3146	N/A	3168	3219
	... of which production of clean water	N/A	29	N/A	51	51

	... of which coastal stabilization	N/A	337	N/A	342	342
	... of which desertification control	0	0	0	0	0
	... of which avalanche control	0	0	0	0	0
	... of which erosion, flood protection or reducing flood risk	N/A	2386	N/A	2386	2432
	... of which other (please specify in comments below the table)	N/A	394	N/A	389	394

Other

Protected belts along motor and railways

Table 5b

Categories	Forest area (1000 hectares)				
	1990	2000	2005	2010	2015
Ecosystem services, cultural or spiritual values		4940	N/A	4681	4732
...of which public recreation	1055	N/A	N/A	724	724
...of which carbon storage or sequestration	N/A	N/A	N/A	N/A	N/A
...of which spiritual or cultural services	N/A	94	N/A	55	55
...of which other (please specify in comments below the table)	N/A	N/A	N/A	N/A	N/A

Tiers

Category	Tier for reported trend	Tier for status
Protection of soil and water	Tier 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	It is included protected forests and 1-2 zones of sanitary protection along water objects	Answer to remarks: At the moment original data could not be given as well as data in tables 5a and 5b could not be interpolated.
Production of clean water	1-2 zones of sanitary protection along water objects and forest stands along channals	N/A
Coastal stabilization	Forets belts along rivers, lakes and other water pools	N/A
Desertification control	N/A	N/A
Avalanche control	N/A	N/A
Erosion, flood protection or reducing flood risk	Protected forets liniar types and anti-erosion forests	N/A
Other protective functions	Forest belts along railway and motorways	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	It is included hystorical-cultural terriries and also forests of scientific value including gene reserves	N/A
Other ecosystem services	N/A	N/A

Other general comments to the table

N/A

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

Documents for this question:

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

6.1 Categories and definitions

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

6.2 National data

6.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Forest Code of the Ukraine	Forest	2006	N/A
2	State Forest Cadastre for 1988-2002	Forest	1988-1996	N/A
3	Order of dividing forest by target use and creation especially protection plots	Forest	2007	N/A
4	State Cadastre of territories and objects of Nature Reserve Fund	N/A	2006-2007	N/A

6.2.2 Classification and definitions

National class	Definition
See 4.2.2	N/A
N/A	N/A
N/A	N/A
N/A	N/A

6.2.3 Original data

See 4.2.3

6.3 Analysis and processing of national data

6.3.1 Adjustment

6.3.2 Estimation and forecasting

For 1990, linear Interpolation of (1988-1996) was applied. The percentage of primary function in 1996 was applied to forest area in 2000 and 2005.

FRA 2005 categories	Area 1000 hectares				
	1988	1990	1996	2000	2005
Primary function					
Conservation of Biodiversity	276	269	248	249	251
Total forest	9213	9274	9458	9510	9575

6.3.3 Reclassification

National category	FRA Categories	
	Conservation of biodiversity	
Conservation of biodiversity	100%	
Total	100%	

6.4 Data

Table 6

Categories		Forest area (000 hectares)				
		1990	2000	2005	2010	2015
	Conservation of biodiversity	269	249	251	1356	1356
	Forest area within protected areas	N/A	N/A	N/A	1101	1130

Tiers

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

Tier criteria

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

6.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Conservation of biodiversity	All forests of nature protection function	Increasing level of protected forest areas was taken place in 2009-2010 according to President decree and decisions of local state authorities
Forest area within protected areas	All forests of nature protection function without available for wood supply	N/A

Other general comments to the table

The structure of forest in 2010, was forecasted with taking into consideration of the status of environmental programs on the increase the protected areas. New objects of nature-preservation fund are created in accordance with the decrees of the President.

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	Inventory data	N/A	N/A	N/A
2	Relational data base	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

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

7.3.3 Reclassification

7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	2010
Acer negundo	N/A	6
Fraxinus viridis	N/A	21
N/A	N/A	N/A
Total	N/A	27

Tiers

Category	Tier for status	Tier for reported trend
Invasive species	Tier 2	Tier 2

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	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
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7.5 Comments

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

Other general comments to the table
N/A

8. How much forest area is damaged each year?

Documents for this question:

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

8.1 Categories and definitions

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

8.2 National data

8.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	About forestry activities (statistical bulletin)	N/A	Yearly, since 1988	N/A
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A

8.2.2 Classification and definitions

National class	Definition
N/A	N/A

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	2.8	4527	0.6	1876	2.3	4223	4.3	3842	14.4	6100
	... of which forest area burned	2.8	4527	0.6	1876	2.3	4223	4.3	3842	13.8	6100
Category		2008		2009		2010		2011		2012	
		000 ha	#	000 ha	#	000 ha	#	000 ha	#	000 ha	#
	Total land area burned	6.8	4042	6.8	7036	4.2	3240	1.1	2526	3.7	2163
	... of which forest area burned	5.5	4042	6.3	7036	3.7	3240	1	2526	3.5	2163

Table 8b

Outbreak category	Description/name	Year(s) of latest outbreak	Area damaged (000 hectares)
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1	Diprion pini	2011	54.2
1	Neodiprion sertifer	2009-2013	152.1
1	Panolis flammea	2013	5.6
1	Acantholyda erythrocephala	2013	2.4
1	Dendrolimus pini	2013	6
1	Lymantris dispar	2009-2013	12.7
2	Fomitopsis annosa	2009-2012	640
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Outbreak category

1 Insects
2 Diseases
3 Severe weather events

Tiers

Category	Tier for status	Tier for trend
Area affected by fire	Tier 3	Tier 3
<ul style="list-style-type: none"> • Insects • Diseases • Severe weather events 	Tier 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	It is given area destroyed by fire. Answer on remark: no	N/A
Insects	N/A	N/A
Diseases	N/A	N/A
Severe weather events	N/A	N/A

Other general comments to the table

N/A

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

Documents for this question:

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

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

Table 9

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

Tiers

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

Tier criteria

Category	Tier for reported trend
Reduction in canopy cover	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	Area of forest with reduces forest cover decreased in Ukraine from 74 thou ha in 2000 until 32 in 2010

Other general comments

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

Documents for this question:

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

10.1 Categories and definitions

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

10.2 National data

10.2.1 Data sources

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

10.2.2 Classification and definitions

National class	Definition
N/A	N/A

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	yes		
... of which, in <u>publicly</u> owned forests	yes	yes		
... of which, in <u>privately</u> owned forests	yes	yes		
Legislation and regulations supporting sustainable forest management	yes	yes		
... of which, in <u>publicly</u> owned forests	yes	yes		
... of which, in <u>privately</u> owned forests	yes	yes		

10.4 Comments

Variable / category	Comments related to data definitions etc
Policies supporting sustainable forest management	State target program "Forests of Ukraine" and regional programs of forestry development
Legislation and regulations supporting sustainable forest management	Forest Code of Ukraine and normative acts supporting Forest Code

Other general comments

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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	There is national procedure of involvement stakeholder participation in public consideration of legal and normative acts

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	State Forest Cadastre 1988-2011	Forests of permanent use	1988-2011	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
N/A	N/A

12.2.3 Original data

Forest area that is designated to be retained as forest and may not be converted to other land use.

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	9548
	... of which permanent forest estate	8788

Tiers

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

Tier Criteria

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

12.5 Comments

Category	Comments related to data definitions etc
Forest area intended to be in permanent forest land use	All Ukrainian forests
Permanent forest estate	Without forests not given to permanent use

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

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	10	2012	no	no	yes	no	no	no
Other field assessments	10	2012	no	yes	no	no	yes	no
Updates to other sources	67	2012	yes	no				
Expert estimate	N/A	N/A						

Table 13b

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

Other type of forest reporting

N/A

13.4 Comments

Category	Comments
Updates to other sources	Permanent forest management planning process through permanent collecting information about changes in forest area, its growing stock, forest operations and other information from state forest enterprises
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	Relational data base	N/A	N/A	N/A
2	State Forest Cadastre	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	8533
... of which for production	5122
... of which for conservation	1289

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	15
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Tiers

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

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	According article 47 of Forest Code forest management planning is obligatory for whole Ukraine
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	no
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
Planning phase	There is national procedure of involvement stackholder participation in public consideration of legal and normative acts
Review of operations	There is a system of reporting of operations implementation. Besides of this state authorities responsible for forest and hunting management at national and regional level have Public Councils which assist in analyzing of operations implementation process and decision making
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	0	203	203	0	203.1	143.1	790.1
	PEFC	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
		2007	2008	2009	2010	2011	2012	
	FSC	1408.8	1008.8	1555.2	1262.5	1268.8	1455	
	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
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 2
Domestic forest management certification	N/A

16.3 Comments

Category	Comments related to data definitions etc
Certified forest area using an international forest management certification scheme	The data for FSC certified forest was obtain from data base of FSC International Center at the beginning of the year 2001, 2009, 2010, 2011, 2012. For 2008 the data of certified forest is available for July 1. The data of FSC certified forest at 2002-2007 was provided by FRA experts. In accordance with information from FSC National Representative in Ukraine there was no certified forests at 2003 because of the certificate was canceled.
Domestic forest management certification	N/A

Other general comments

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

Documents for this question:

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

17.1 Categories and definitions

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

17.2 National data

17.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	Official reporting data	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	744400	1991100	5911645
Public expenditure on forestry	N/A	N/A	N/A
	2000	2005	2010
Name of Local Currency	UAH	N/A	N/A

17.4 Comments

Category	Comments related to data definitions etc
Forest revenue	For year 2010 It is given data for year 2012
Public expenditure on forestry	External funding is given for year 2006
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	Land Code of the Ukraine	Other land area	2002	N/A
2	Forest Code of the Ukraine	Forest	2006	N/A
3	State Forest Cadastre for 1988-2002	Forest	1988-2002	N/A
4	State Land Cadastre for 1990-2008	Other land area	1988-2008	N/A

18.2.2 Classification and definitions

National class	Definition
N/A	N/A

18.2.3 Original data

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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

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18.4 Data

Table 18a

Categories	Forest area (1000 hectares)
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		1990	2000	2005	2010
	Public ownership	9274	9503	9568	9528
	... of which owned by the state at national scale	N/A	N/A	N/A	N/A
	... of which owned by the state at the sub-national government scale	N/A	N/A	N/A	N/A
	Private ownership	0	7	7	20
	... of which owned by individuals	0	7	7	16
	... 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	4
	Unknown ownership	0	0	0	0
TOTAL		9274.00	9510.00	9575.00	9548.00

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)
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	1990	2000	2005	2010
Public Administration	6865	8034	8678	8808
Individuals	0	0	0	16
Private companies	0	0	0	0
Communities	1813	245	12	4
Other	596	1224	878	746
TOTAL	9274.00	9503.00	9568.00	9574.00

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

18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	Include state and communal ownership	N/A
Private ownership	N/A	N/A
Unknown ownership	N/A	N/A
Management rights	State forest area is given for permanent use to different Ministries and agencies. The biggest forest areas are used by State Forestry Committee 68% and Ministry of Agrarian Policy 17%. In column "Communities" is given area under collective farms - "kolhozes" responsibilities. In column "Other" is given area of reserve lands	N/A

Other general comments to the table

In compliance with the new Land Code adopted in 2001 three types of property was declared in Ukraine: state, communal and private. Land plots up to 5 ha from the agricultural and farming lands may be transferred to the private property. Besides, legal and physical persons have the right to purchase land plots of abandoned and degraded lands for the purpose of afforestation. Communal property should include the forest stands within the boundaries of settlements other than those in the state and private property as well as beyond the boundaries of the settlements on the objects of communal property. However, a procedure for demarcation of the lands has not yet been determined. Almost 0.4 million ha are not in any permanent use and located on areas of reserve fund. These forest are not in a good condition because of absence thinning, protection against fires, pests and disease, illegal logging.

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	Annual reporting	1990 2000 2005	Data of State Statistic Service	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

19.2.2 Classification and definitions

National class	Definition
N/A	N/A

19.2.3 Original data

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19.3 Data

Table 19

Category	Employment (000 years FTE)
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		1990	2000	2005	2010
	Employment in forestry	62	104.9	98.2	69.8
	... of which female	13	18.4	18	12.1

19.4 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Employment in forestry	Data is given for employment in forestry and its related services. Up to year 2010 data is excluded employment for small enterprises	N/A

Other general comments to the table

Data is given without employees of small enterprises and self-employees

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)	3499	UAH	2011

20.3 Comments

Category	Comments
N/A	Data is given for national category "Forestry and its related services"

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	9700	9800

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

Forests earmarked for conversion	N/A
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Other general comments

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