GLOBAL FOREST RESOURCES ASSESSMENT 2015

COUNTRY REPORT

Kazakhstan

Rome, 2014

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

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

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Report preparation and contact persons

Contact persons

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

Name (FAMILY NAME, first name)	Institution/address	Email	Tables
DESK STUDY	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

Introductory Text

Place an introductory text on the content of this report

This desk study was prepared by the FRA secretariat based on information provided to FRA 2010. It should be noted that a word report was submitted by Kazakhstan for FRA 2015 but the report was never finalized.

Kazakhstan is a large country with limited forest resources relative to its overall land area. Forests areas account for a mere 4% of Kazakhstan's territory. However, the 11.5 million hectares of forest (according to national definition) cover still make Kazakhstan the third largest forest country in the ECA region, after Russia and Turkey. In the traditional measure of forest abundance - total growing stock of timber - Kazakhstan with its 383.7 million m3 of standing timber ranks low compared to other ECA . Its limited forest production is partly a result of low temperatures and low precipitation.

At the same time, Kazakhstan is a nation that considers its forest important. Both forests and population have average low densities and are distributed unevenly over the country's territory. On a per capita basis, Kazakhstan has almost as much forest land (0.77 ha/person) as the 'forest-rich' United States or Malaysia and is significantly ahead of most ECA countries (except Russia, Belarus and the Baltics). The main concentrations of forests and people in Kazakhstan are in the fertile forest-steppe zone extending from Russia along the northern border, at the foothills and slopes of the Altay, Alatau and Tien Shan mountains along the eastern and southeastern borders, and along the Syr-Darya and other main rivers in the southern deserts. Hence, a majority of the nation lives in or near woodlands and uses them for food and fodder, productive soil, shelter and construction materials, fuel, gainful employment, recreation, etc. About 300,000 people are directly dependent on the sector, while an estimated 2.5 million live in or rely on the forests for fuel wood, fodder and other forest products, and an even larger number uses forests for shelter and construction materials, recreation, wind and soil control agricultural land productivity (shelterbelts). These functions justify public management for protection and reforestation of forests in Kazakhstan. Kazakhstan is a middle-income country which recognizes the multi-use functions of its forests.

Because of the diversity of forest types, Kazakhstan can be regarded not as one forest nation, but as four distinct forest domains that are separated in the geographical sense by the vast treeless space of central and western deserts and semideserts. They are: the Altay Mountains (home to unique Siberian biodiversity and also a concentration of 75% of commercial-grade spruce and fir timber in Kazakhstan), the northern forest-steppe (with birch, aspen and pine forest islands including the relic Irtysh pine belts fragmented amidst farmland – an important source of local construction material and fuelwood, as well as a key habitat for wildlife and area for recreation), the Tien-Shan and Ile-Alatau Mountains (a globally unique habitat in terms of agrobiodiversity, wild nut and fruit production, a critical water source for the Aral Sea and Lake Balkhash, and an internationally important tourist destination), and the saxaul scrub forest of the southern desert (a source of high-quality fuelwood and a critical habitat for livestock grazing and sand dune control near the Aral seabed). In addition, there are riparian forests along major rivers. They play an important water-regulating role in the southern floodplains (tugay forest) and constitute almost the only type of forest in the oil-rich but treeless Western Kazakhstan.

Additional information sources, to those applied for FRA2005, used for the study:

Forest Management in Kazakhstan, Kashkinbaeva N., Agency on Statistics of Kazakhstan.
National information provided for Workshop on Forest Products Statistics for CIS-region National Statistical Correspondents, Moscow, Russian Federation, 16 - 19 February 2009

- (quoted in the report as "Forest Management in Kazakhstan 2009")

Khaidarov K., Arkhipov V.: Forest Fire Situation in Kazakhstan (International Forest Fire News No. 24 - April 2001, p. 60-67)

Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium (2005-2007)

- (quoted in the report as "Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium")

Kazakhstan -Forest Protection and Reforestation Project. Initial Project Information Document. World Bank, 2003

- (quoted in the report as "Kazakhstan -Forest Protection and Reforestation Project 2003")

Desk Study?

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

Desk Study?	yes

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 *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	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	State Forest Fund Account, 1993	Area of forest and other land uses	1990	N/A
2	State Forest Fund Account, 2003	Area of forest and other land uses	2000	Data for 2005 and 2010 is forecasted

3	Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium	Area of forest and other land uses	2005-2008	Information used for comments
4	FAOSTAT database	Total area, total land area, total area of inland water bodies	Applicable to 1990, 2000, 2005 and 2010	N/A
5	Forest Management in Kazakhstan 2009	Afforestation Reforestation	2000	N/A

1.2.2 Classification and definitions

National class	Definition
Afforestation	Planting and sowing of forest (####### # ##### ####)
Introduction of woody plants formations	Establishing of forest shelter belts, plantations on unsuitable lands and protective plantations on grazing lands (######## ############# ###### #####, ########### ## ######### ###### # ######## ########## ## ########## ######)
Reforestation	Regeneration of forest (artificial) (#################)
N/A	N/A

1.2.3 Original data

Forest area

After reclassification and applying the FAOSTAT data, the national data are as follows:

FRA 2010 Categories	Area (1000 hectares)	
	1993	**2003**
Forest	3405.3	3348.2
Other wooded land	13563.7	15279.3
Other land	253001	251342.5
...of which with tree cover [a]	4.8	3.5
Inland water bodies	2520	2520
TOTAL	**272490**	**272490**

Source: State forest account, 1993, 2003

Available national information on forested area dynamics in the latest period is reported according to the classification system that is not compatible with the one that had been applied for FRA2005 reporting. Data in the table below was not used for FRA reporting purposes and it is presented for illustration of trends

National Category	2000	2005	2006	2007	2008
Total area of forest fund (including forest transferred into temporal use), mln. ha	26,5	26,5	26,5	26,8	27,8
Lands covered with forest, mln. ha	11,4	12,4	12,3	12,3	12,3

Source: Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium

Forest expansion, deforestation, reforestation

	2000	2005	2006	2007	2008	**Average 2005-2007**
Afforestation	**4,0**	10,4	16,7	8,1	10,6	**18.00**
Introduction of woody plants formations	**0,3**	0,4	0,5	0,5	0,4	**11.73**
Reforestation	**10,4**	13,4	21,7	18,9	18,4	**0.47**

1.3 Analysis and processing of national data

1.3.1 Adjustment

Forest area

FAOSTAT data were used for the country area, total land area and the total area of inland water bodies.

1.3.2 Estimation and forecasting

Forest area

The calibrated national data for 1993 and 2003 were used for making estimations and forecasting to the three reporting years. The 1998 data were not used as it presented discrepancies due to internal reclassification of areas within the State Forest Fund. The result of the estimation and forecasting is presented in the table below:

FRA 2005 Categories	**Area (1000 hectares)**					
	1993	*2003*	**1990**	**2000**	**2005**	**2010**
Forest	*3 405*	*3 348*	3 422	3 365	3 337	3 309
Other wooded land	*13 564*	*15 279*	13 049	14 765	15 622	16 479
Other land	*253 001*	*251 343*	253 499	251 840	251 011	250 182

...of which with tree cover	*4.8*	*3.5*	5.2	3.9	3.2	2.5
Inland water bodies	*2 520*	*2 520*	2 520	2 520	2 520	2 520
TOTAL	***272 490***	***272 490***	**272 490**	**272 490**	**272 490**	**272 490**

1.3.3 Reclassification

Forest area

The following reclassification has been done:

FRA class	National class
Forest	Areas covered by closed forest. Does not include areas with Saxaul (*Haloxylon* spp.) trees/stands (thickets), and bushes/brushwood
Other wooded land	Includes: Bushes, Saxaul (*Haloxylon* spp.) trees/stands (thickets), open (not closed) planted forests, nurseries, and open forest lands
Other land with tree cover	Orchards and gardens

Forest expansion, deforestation, reforestation

	National categories		
FRA 2010 categories	Afforestation	Introduction of woody plants formations	Reforestation
Afforestation	100%	100%	0%
Reforestation	0%	0%	100%
...of which on areas previously planted	n.a.	n.a.	n.a.

Natural expansion of forest	n.a.	n.a.	n.a.

1.4 Data

Table 1a

Categories		Area (000 hectares)				
		1990	**2000**	**2005**	**2010**	**2015**
CFRQ	Forest	3422	3365	3337	3309	3309
CFRQ	Other wooded land	13049	14765	15622	16479	16479
CFRQ	Other land	253499	251840	251011	250182	250182
CFRQ	... of which with tree cover	5.2	3.9	3.2	2.5	2.5
CFRQ	Inland water bodies	2520	2520	2520	2520	2520
	TOTAL	272490.00	272490.00	272490.00	272490.00	272490.00

Table 1b

Categories		Annual forest establishment / loss (000 hectares per year)				...of which of introduced species (000 hectares per year)			
		1990	**2000**	**2005**	**2010**	**1990**	**2000**	**2005**	**2010**
CFRQ	Forest expansion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which afforestation	N/A	10.4	18	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which natural expansion of forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Deforestation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which human induced	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Reforestation	N/A	4.3	12.2	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which artificial	N/A	4.3	12.2	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	N/A	N/A
Deforestation	N/A	N/A
Reforestation	Tier 1	Tier 1

Tier criteria

Category	Tier for status	Tier for reported trend
• Forest • Other wooded land • Afforestation • Reforestation • Natural expansion of forest • Deforestation	**Tier 3** : Data sources: Either recent (less than 10 years ago) National Forest Inventory or remote sensing, with ground truthing, or programme for repeated compatible NFIs **Tier 2** : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 years ago) **Tier 1** : Other	**Tier 3** : Estimate based on repeated compatible tiers 3 (tier for status) **Tier 2** : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) **Tier 1** : Other

1.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trends
Forest	Because of lack of detailed classification system reclassification of the recent national figures to the FRA format was not possible. Values reported in Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical compendium indicate a trend of forested areas in Kazakhstan only. Data for 2005 and 2010 was generated by extrapolation of data reported for FRA2000.	N/A
Other wooded land	The estimated areas of "Other wooded land" are derived from the national classification within the State Forest Fund and include also areas that would qualify as "Forest" according to the FRA 2010 definitions.	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	Due to the lack of a more specific data reported values encompass areas classified as forest and other wooded land according to the FRA classification.	N/A
Deforestation	N/A	N/A
Reforestation	Due to the lack of a more specific data reported values encompass areas classified as forest and other wooded land according to the FRA classification.	N/A

Other general comments to the table
N/A

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 *(sub-category)*	Other naturally regenerated forest where the trees are predominantly of introduced species.
...of which naturalized *(sub-sub category)*	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 *(sub-category)*	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 *(sub-category)*	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 Fund Account, 1993	All available and related	1990	N/A
2	State Forest Fund Account, 1998	All available and related	2000	The data concerning 2000 are forecasts
3	State Forest Fund Account, 2003	All available and related	2005	The data concerning 2005 and 2010 are forecasts
4	N/A	N/A	N/A	N/A

2.2.2 Classification and definitions

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

Reclassification scheme applied for national reporting for FRA2005 was used for this table. Data for 2010 was calculated with the use of information of total forest area from Question 1 and shares of the categories reported for 2005.

FRA 2005 Categories	National class
Planted forest	Open planted forests (non-closed plantations)

2.4 Data
Table 2a

Categories	Forest area (000 hectares)

		1990	2000	2005	2010	2015
CFRQ	Primary forest	0	0	0	0	0
CFRQ	Other naturally regenerated forest	2388	2309	2428	2408	2408
CFRQ	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which naturalized	N/A	N/A	N/A	N/A	N/A
CFRQ	Planted forest	1034	1056	909	901	901
CFRQ	... of which of introduced species	N/A	N/A	N/A	N/A	N/A
TOTAL		3422.00	3365.00	3337.00	3309.00	3309.00

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 1	Tier 1
Other naturally regenerated forest	Tier 1	Tier 1
Planted forest	Tier 1	Tier 1
Mangroves	Tier 3	Tier 3

Tier Criteria

Category	Tier for status	Tier for reported trend

| Primary forest/Other naturally regenerated forest/Planted forest | **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 **Tier 2** : Data sources: Full cover mapping/ remote sensing or old NFI (more than 10 years) **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 |

2.5 Comments

Category	Comments related to data definitions etc	Comments on reported trend
Primary forest	N/A	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	FRA2005 reporting	Growing stock	1990 2000	Growing stock to biomass recalculation procedure for all reporting years.
2	Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium	Growing stock	2005, 2010	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
Above-ground biomass	Same as FRA2015
Below-ground biomass	Same as FRA2015
Dead wood	Same as FRA2015
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 specified depth chosen by the country and applied consistently through the time series.

3.2.3 Original data

Growing stock

	2000	2005	2006	2007	2008
The total stock of timber on the stump, mln. m ^{3}	375,3	375,8	375,8	375,8	375,8

Biomass stock

Please see data on growing stock.

Carbon stock

Please see data on growing and biomass stock.

3.3 Analysis and processing of national data

3.3.1 Adjustment

3.3.2 Estimation and forecasting

Growing stock

FRA2005 data was used for estimation of volume of growing stock for 1990, and for evaluation of relation between volume of GS of forest and other wooded land for all reporting years. Recent national data was applied for evaluation of the total growing stock.

Biomass stock

For the calculation of stem biomass, above/below ground biomass FRA 2010 factors and ratios were used. The table below refer to year 1990.

Tree Species	Growing Stock (million m3)	Basic density (tons/m3)	Stem biomass (mln. tons)	BEF	AG biomass (mln. tons)	Root/ Shoot Ratio	BG biomass (mln. tons)
Pinus spp.	110.93	0.42	46.59	1.3	60.57	0.32	19.38
Betula spp.	81.40	0.51	41.51	1.4	58.11	0.26	15.11

Abies spp.	57.50	0.40	23.00	1.3	29.90	0.32	9.57
Picea spp	31.55	0.40	12.62	1.3	16.41	0.32	5.25
Larix spp.	30.47	0.46	14.02	1.3	18.23	0.32	5.83
Populus tremula	26.21	0.35	9.17	1.4	12.84	0.26	3.34
Populus spp	9.10	0.35	3.19	1.4	4.47	0.26	1.16
Pinus siberica	8.46	0.42	3.55	1.3	4.62	0.32	1.48
Salix spp.	4.40	0.45	1.98	1.4	2.77	0.26	0.72
Ulmus spp.	2.05	0.55 [1] /	1.13	1.4	1.58	0.26	0.41
Remainder of species	3.54	0.50 [2] /	1.77	1.35 [3] /	2.39	0.29 [4] /	0.69
TOTAL for 1990	**365.61**		**158.53**		**211.89**		**62.94**

Notes: /1. data source: http://www.sykestimber.co.uk/hardwoodspec.htm

/2. a rounded number of 0.50 was chosen due to a lack of further information

/3. a median of 1.35 was chosen (between 1.30 and 1.40)

/4. a median of 0.29 was chosen (between 0.26 and 0.32)

As there has not been any significant change in the wood volume composition by species groups from 1990 to 2005, it was possible to calculate the volumes of above ground biomass, below ground biomass for 2000, 2005 and 2010 using weighted conversion factors in accordance with the FRA 2005 Guidelines:

Calculation of weighted conversion factors based on the 1990 data:

WCF agb = 211.89/365.61 = 0.579552

WCF bgb = 62.94/365.61 = 0.172151

Estimation for 2000:

AGB = 363.46*0.579552 = 210.64

BGB = 363.46*0.172151= 62.57

Estimation for 2005:

AGB = 363.95*0.579552 = 210.93

BGB = 363.95*0.172151= 62.65

Estimation for 2010:

AGB = 363.65*0.579552 = 210.93

BGB = 363.65*0.172151= 62.65

The same coefficients were applied for the estimation of biomass of the OWL on the basis of information in T6 (total volume of wood for OWL for 1990, 2000, 2005 and 2010).

Carbon stock

The calculation of carbon stock (for the above-ground biomass, below-ground biomass and deadwood) was carried out by multiplying respective biomass data by the standard value defined by IPCC-GPG for the calculation of carbon content in wood biomass (50%).

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
CFRQ	Total growing stock	365.61	363.46	363.95	363.95	363.95	10.68	11.88	11.9	11.9	11.9
CFRQ	... of which coniferous	242.45	238.81	239.13	239.13	239.13	N/A	N/A	N/A	N/A	N/A

		123.16	124.65	124.82	124.82	124.82	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which broadleaved										

Table 3b

Category/Species name			Growing stock in forest (million cubic meters)			
Rank	Scientific name	Common name	1990	2000	2005	2010
1 st	Pinus spp.	Pine	110.93	104.1	104.1	104.1
2 nd	Betula spp.	Birch	81.4	81.32	81.32	81.32
3 rd	Abies spp.	Fir	57.5	59.23	59.23	59.23
4 th	Picea spp	Spruce	31.55	34.16	34.16	34.16
5 th	Larix spp.	Larch	30.47	30.16	30.16	30.16
6 th	Populus tremula	Aspen	26.21	28.96	28.96	28.96
7 th	Populus spp	Poplar	9.1	9.06	9.06	9.06
8 th	Pinus siberica	Cedar	8.46	9.02	9.02	9.02
9 th	Salix spp.	Willow	4.4	4.39	4.39	4.39
10 th	Ulmus spp.	Elm	2.05	2.09	2.09	2.09
Remaining			3.54	2.46	2.46	2.46
TOTAL			365.61	364.95	364.95	364.95

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)	8	N/A
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	3	N/A
Minimum diameter (cm) of branches included in growing stock (W)	n.a.	N/A
Volume refers to above ground (AG) or above stump (AS)	AG / AS	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 (m³ per hectare and year)				
		Forest				
		1990	2000	2005	2010	2015
CFRQ	Net annual increment	N/A	N/A	N/A	N/A	N/A
CFRQ	... of which coniferous	N/A	N/A	N/A	N/A	N/A
CFRQ	... 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
CFRQ	Above ground biomass	211.89	210.64	210.93	210.93	210.93	6.19	6.89	6.89	6.89	6.89
CFRQ	Below ground biomass	62.94	62.57	62.65	62.65	62.65	1.84	2.05	2.05	2.05	2.05
CFRQ	Dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		274.83	273.21	273.58	273.58	273.58	8.03	8.94	8.94	8.94	8.94

Table 3e

Category		Carbon (Million metric tonnes)									
		Forest					Other wooded land				
		1990	2000	2005	2010	2015	1990	2000	2005	2010	2015
CFRQ	Carbon in above ground biomass	105.95	105.32	105.46	105.46	105.46	3.1	3.45	3.45	3.45	3.45
CFRQ	Carbon in below ground biomass	31.47	31.29	31.33	31.33	31.33	0.92	1.03	1.02	1.02	1.02
CFRQ	*Subtotal Living biomass*	137.42	136.61	136.79	136.79	136.79	4.02	4.48	4.47	4.47	4.47

CFRQ	Carbon in dead wood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Carbon in litter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	*Subtotal Dead wood and litter*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CFRQ	Soil carbon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL		137.42	136.61	136.79	136.79	136.79	4.02	4.48	4.47	4.47	4.47

Tiers

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

Tier criteria

Category	Tier for status	Tier for reported trend
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
• Carbon in above ground biomass • Carbon in below ground biomass • Carbon in dead wood and litter • Soil carbon	Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied Tier 2: Application of country specific national or sub-national biomass conversion factors form from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied	**Tier 3** : Estimate based on repeated compatible tiers 3 (tier for status) **Tier 2** : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) **Tier 1** : Other

3.5 Comments on growing stock biomass and carbon

Category	Comments related to data definitions etc	Comments on the reported trend
Total growing stock	N/A	N/A
Growing stock of broadleaved coniferous	Volume of growing stock of coniferous species was calculated on the basis of information on species composition (table 6b). Next to volumes of coniferous genera (Pine, Fir, Spruce, Larch, Cedar) volume of remaining species was included into this group. Volume of broadleaves was calculated as difference between the total growing stock and volume of coniferous trees.	N/A
Growing stock composition	N/A	N/A
Net annual increment	N/A	N/A
Above-ground biomass	N/A	N/A
Below-ground biomass	N/A	N/A
Dead wood	N/A	N/A
Carbon in above-ground biomass	N/A	N/A
Carbon in below-ground biomass	N/A	N/A

Carbon in dead wood	Kazakhstan reported on carbon sequestered in deadwood for FRA2005, basing on default IPPC values. This reporting does not meet criteria of FRA2010, thus FRA2005 values were deleted.	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	State Forest Fund Account, 1993	All available and related	1990	N/A
2	State Forest Fund Account, 1998	All available and related	2000	The data concerning 2000 are forecasts
3	State Forest Fund Account, 2003	All available and related	2005	The data concerning 2005 and 2010 are forecasts
4	Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium	Area of forest and other land uses	2005-2008	Information used for comments

4.2.2 Classification and definitions

National class	Definition
N/A	N/A

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

4.2.3 Original data

Data on forest area were taken from Question 1.

4.3 Analysis and processing of national data

4.3.1 Adjustment

4.3.2 Estimation and forecasting

Data on areas with primary designated function for years 1990, 2000 and 2005 was derived from national reporting for FRA 2005. Data for 2010 was calculated with the use of information of total forest area from Question 1, values for categories *Conservation of biodiversity* and *Social services* were assumed at the same level as in 2005, are of forest designated for *Multiple use* was calculated as difference between above mentioned categories.

4.3.3 Reclassification

The following reclassification has been done:

FRA class	National class
Conservation of biodiversity	State forest natural monuments; Forests of the state nature reserves; Forests of the state nature wilderness areas
Social services	Forests of the state national parks; Forests of the state nature parks; Green zones of the settlements and habitat areas, and medical-prophylactic institutions
Multiple purpose	All other categories (see the above notes)

4.4 Data

Table 4a

Categories		Forest area (000 hectares)				
		1990	**2000**	**2005**	**2010**	**2015**
CFRQ	Production forest	0	0	0	0	0
CFRQ	Multiple use forest	3140	3114	2379	2351	2351

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	N/A

Category
Plant products / raw material
1 Food

2 Fodder	
3 Raw material for medicine and aromatic products	
4 Raw material for colorants and dyes	
5 Raw material for utensils handicrafts construction	
6 Ornamental plants	
7 Exudates	
8 Other plant products	
Animal products / raw material	
9 Living animals	
10 Hides skins and trophies	
11 Wild honey and beewax	
12 Wild meat	
13 Raw material for medicine	
14 Raw material for colorants	
15 Other edible animal products	
16 Other non-edible animal products	

Table 4c Pre-filled data from FAOSTAT

Year	FRA 2015 category (1000 m^3 u.b.)	
	Total wood removals	**...of which woodfuel**
1990	N/A	N/A
1991	N/A	N/A
1992	N/A	N/A
1993	N/A	N/A
1994	N/A	N/A
1995	N/A	N/A
1996	N/A	N/A
1997	N/A	N/A

1998	N/A	N/A
1999	N/A	N/A
2000	N/A	N/A
2001	N/A	N/A
2002	N/A	N/A
2003	N/A	N/A
2004	N/A	N/A
2005	N/A	N/A
2006	N/A	N/A
2007	N/A	N/A
2008	N/A	N/A
2009	N/A	N/A
2010	N/A	N/A
2011	N/A	N/A

Tiers

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

4.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Production forest	N/A	N/A
Multiple use forest	N/A	N/A

Total wood removals	N/A	N/A
Commercial value of NWFP	N/A	N/A

Other general comments to the table
N/A

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

5.1 Categories and definitions

Category	Definition
Protection of soil and water	Forest area designated or managed for protection of soil and water
...of which production of clean water *(sub-category)*	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 *(sub-category)*	Forest area primarily designated or managed for coastal stabilization.
...of which desertification control *(sub-category)*	Forest area primarily designated or managed for desertification control.
...of which avalanche control *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	Forest area designated or managed for public recreation.
...of which carbon storage or sequestration *(sub-category)*	Forest area designated or managed for carbon storage or sequestration.
...of which spiritual or cultural services *(sub-category)*	Forest area designated or managed for spiritual or cultural services.
...of which other *(sub-category)*	Forest area designated or managed for other ecosystem services.

5.2 National data

5.2.1 Data sources

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

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

5.2.2 Classification and definitions

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

5.2.3 Original data

5.3 Analysis and processing of national data

5.3.1 Adjustment

5.3.2 Estimation and forecasting

5.3.3 Reclassification

5.4 Data

Table 5a

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

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

Other
N/A

Table 5b

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

Tiers

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

Tier criteria

Category	Tier for status	Tier for reported trend

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
• Cultural or spiritual values • Public recreation • Spiritual or cultural services • Other	Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other	**Tier 3** : Estimate based on repeated compatible tiers 3 (tier for status) **Tier 2** : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) **Tier 1** : Other

5.5 Comments

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

Other general comments to the table

N/A

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

6.1 Categories and definitions

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

6.2 National data

6.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	State Forest Fund Account, 1993	All available and related	1990	N/A
2	State Forest Fund Account, 1998	All available and related	2000	The data concerning 2000 are forecasts
3	State Forest Fund Account, 2003	All available and related	2005	The data concerning 2005 and 2010 are forecasts
4	Agriculture, forestry and fisheries in Kazakhstan 2005-2007. Statistical Compendium	Area of forest and other land uses	2005-2008	Information used for comments

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

Data on forest area were taken from Question 1.

6.3 Analysis and processing of national data

6.3.1 Adjustment

6.3.2 Estimation and forecasting

Data on areas with primary designated function for years 1990, 2000 and 2005 was derived from national reporting for FRA 2005. Data for 2010 was calculated with the use of information of total forest area from Question 1, values for categories *Conservation of biodiversity* and *Social services* were assumed at the same level as in 2005, are of forest designated for *Multiple use* was calculated as difference between above mentioned categories.

6.3.3 Reclassification

The following reclassification has been done:

FRA class	National class
Conservation of biodiversity	State forest natural monuments; Forests of the state nature reserves; Forests of the state nature wilderness areas
Social services	Forests of the state national parks; Forests of the state nature parks; Green zones of the settlements and habitat areas, and medical-prophylactic institutions
Multiple purpose	All other categories (see the above notes)

6.4 Data
Table 6

Categories		Forest area (000 hectares)				
		1990	**2000**	**2005**	**2010**	**2015**
	Conservation of biodiversity	31	33	530	530	530

	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	N/A	N/A

Tier criteria

Category	Tier for status	Tier for reported trend
• 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	N/A	N/A
Forest area within protected areas	N/A	N/A

Other general comments to the table
N/A

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

7.1 Categories and definitions

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

7.2 National data

7.2.1 Data sources

	References to sources of information	Variables	Years	Additional comments
1	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

7.3 Analysis and processing of national data

7.3.1 Adjustment

7.3.2 Estimation and forecasting

7.3.3 Reclassification

7.4 Data

Table 7

Scientific name of woody invasive species	Forest area affected (000 ha)	
	2005	**2010**
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	N/A	N/A

Tier Criteria

Category	Tier for status	Tier for reported trend

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

7.5 Comments

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

Other general comments to the table
N/A

8. How much forest area is damaged each year?
Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

8.1 Categories and definitions

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

8.2 National data

8.2.1 Data sources

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

8.2.2 Classification and definitions

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

8.2.3 Original data

8.3 Analysis and processing of national data

8.3.1 Adjustment

8.3.2 Estimation and forecasting

8.3.3 Reclassification

8.4 Data

Table 8a

Category	000 ha, number of fires									
	2003		**2004**		**2005**		**2006**		**2007**	
	000 ha	**#**	**000 ha**	**#**	**000 ha**	**#**	**000 ha**	**#**	**000 ha**	**#**
Total land area burned	6458.73	N/A	9154.3	N/A	8562.58	N/A	9987.15	N/A	6521.91	N/A
... of which forest area burned	15.25	N/A	23.93	N/A	13.3	N/A	18.5	N/A	13.72	N/A
Category	**2008**		**2009**		**2010**		**2011**		**2012**	
	000 ha	**#**	**000 ha**	**#**	**000 ha**	**#**	**000 ha**	**#**	**000 ha**	**#**
Total land area burned	8355.67	N/A	3550.51	N/A	9634	N/A	2349.58	N/A	5356.55	N/A
... of which forest area burned	20.72	N/A	14.1	N/A	14.06	N/A	3.91	N/A	14.85	N/A

Table 8b

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

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

Outbreak category
1 Insects
2 Diseases
3 Severe weather events

Tiers

Category	Tier for status	Tier for trend
Area affected by fire	Tier 2	Tier 2
• Insects • Diseases • Severe weather events	N/A	N/A

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
• Insects • Diseases • Severe weather events	**Tier 3** : Systematic survey (e.g. via inventory or aerial damage assessment) **Tier 2** : Management records **Tier 1** : Other	**Tier 3** : Estimate based on repeated compatible tiers 3 (tier for status) **Tier 2** : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) **Tier 1** : Other

8.5 Comments

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

Burned area	N/A	N/A
Insects	N/A	N/A
Diseases	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	N/A

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

10.1 Categories and definitions

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

10.2 National data

10.2.1 Data sources

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

10.2.2 Classification and definitions

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

10.2.3 Original data

10.3 Data

Table 10

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

10.4 Comments

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

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

11.1 Categories and definitions

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

11.2 National data

11.2.1 Data sources

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

Table 11

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

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 *(sub-category)*	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	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

12.2.2 Classification and definitions

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

12.2.3 Original data

12.3 Analysis and processing of national data

12.3.1 Adjustment

12.3.2 Estimation and forecasting

12.3.3 Reclassification

12.4 Data

Table 12

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

Tiers

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

Tier Criteria

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

12.5 Comments

Category	Comments related to data definitions etc
Forest area intended to be in permanent forest land use	N/A
Permanent forest estate	N/A

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

13.1 Categories and definitions

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

13.2 National data

13.2.1 Data sources

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

13.2.2 Classification and definitions

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

13.3 Data
Table 13a

Category	% of total forest area	Most recent year	Check all boxes that apply						
			Continuous	Periodic	Permanent ground plots	Temporary ground plots	Aerial/ remote sensing sample based	Aerial/ remote sensing full coverage
Forest inventory	N/A	N/A						
Other field assessments	N/A	N/A						
Updates to other sources	N/A	N/A						
Expert estimate	100	2014						

Table 13b

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

Other type of forest reporting
N/A

13.4 Comments

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

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

14.1 Categories and definitions

Category	Definition
Forest area with management plan	Forest area that has a long-term documented management plan, aiming at defined management goals which is periodically revised
...of which for production *(sub-category)*	Forest management plan mainly focused on production
...of which for conservation *(sub-category)*	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	N/A
... of which for production	N/A
... of which for conservation	N/A

Table 14b

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

2 High conservation value forest delineation	
3 Social considerations community involvement	

Table 14c

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

Tiers

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

Tier criteria

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

14.4 Comments

Category	Comments
Forest area with management plan	Total area of forest with management plan is not available; however the latest national statistics indicate intensive work on forest management planning. Area of forest covered with forest management planning was 1127, 352, 452 and 967 thousand hectares in 2005, 2006, 2007 and 2008 respectively.
N/A	N/A
N/A	N/A

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

15.1 Categories and definitions

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

Table 15

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

Tiers

Category	Tier for status
Type of stakeholder inputs	N/A

Tier criteria

Category	Tier for status
Type of stakeholder inputs	**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
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**
CFRQ	FSC	0	0	0	0	0	0	0
CFRQ	PEFC	0	0	0	0	0	0	0
CFRQ	Other	0	0	0	0	0	0	0
		2007	**2008**	**2009**	**2010**	**2011**	**2012**	
CFRQ	FSC	0	0	0	0	0	0	
CFRQ	PEFC	0	0	0	0	0	0	
CFRQ	Other	0	0	0	0	0	0	

Table 16b

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

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

Tier criteria

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

Tiers

Category	Tier for status
International forest management certification	Tier 3
Domestic forest management certification	N/A

16.3 Comments

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

Other general comments

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: • 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	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	N/A	N/A	N/A
Public expenditure on forestry	N/A	N/A	N/A

	2000	2005	2010
Name of Local Currency	N/A	N/A	N/A

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

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 *(sub-category)*	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 *(sub-category)*	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 *(sub-category)*	Forest owned by individuals and families.
...of which private business entities and institutions *(sub-category)*	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 *(sub-category)*	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	State Forest Fund Account, 1993	All available and related	1990	N/A
2	State Forest Fund Account, 1998	All available and related	2000	The data concerning 2000 are forecasts
3	State Forest Fund Account, 2003	All available and related	2005	The data concerning 2005 and 2010 are forecasts
4	N/A	N/A	N/A	N/A

18.2.2 Classification and definitions

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

18.2.3 Original data

All forests and OWL in Kazakhstan are publicly owned.

18.3 Analysis and processing of national data

18.3.1 Adjustment

18.3.2 Estimation and forecasting

Already applied for deriving the data for Question1, the latter being the basis for this Question. Therefore, there was no need for apply estimation and forecasting.

18.3.3 Reclassification

18.4 Data

Table 18a

Categories		Forest area (1000 hectares)			
		1990	**2000**	**2005**	**2010**
CFRQ	Public ownership	3422	3365	3337	3337
CFRQ	... of which owned by the state at national scale	N/A	N/A	N/A	N/A
CFRQ	... of which owned by the state at the sub-national government scale	N/A	N/A	N/A	N/A
CFRQ	Private ownership	0	0	0	0
CFRQ	... of which owned by individuals	0	0	0	0
CFRQ	... of which owned by private business entities and institutions	0	0	0	0
CFRQ	... of which owned by local, tribal and indigenous communities	0	0	0	0
CFRQ	Unknown ownership	0	0	0	0
TOTAL		3422.00	3365.00	3337.00	3337.00

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

Table 18b - Holder of management rights of public forests

Categories	Forest area (000 hectares)			
	1990	**2000**	**2005**	**2010**
Public Administration	N/A	N/A	N/A	N/A
Individuals	N/A	N/A	N/A	N/A
Private companies	N/A	N/A	N/A	N/A
Communities	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A
TOTAL	.00	.00	.00	.00

Category	Tier for reported trend	Tier for status
Public Administration	N/A	N/A
Individuals	N/A	N/A
Private companies	N/A	N/A
Communities	N/A	N/A
Other	N/A	N/A

18.5 Comments

Category	Comments related to data definitions etc	Comments on the reported trend
Public ownership	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: http://www.unece.org/timber/docs/dp/dp-29.pdf	1990, 2000	Statistics collected through the questionnaire officially submitted to ILO	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
N/A	N/A
N/A	N/A
N/A	N/A

19.2.3 Original data

19.3 Data

Table 19

Category		Employment (000 years FTE)			
		1990	**2000**	**2005**	**2010**
CFRQ	Employment in forestry	13.5	13.5	13.5	13.5
CFRQ	... 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)	12574.6	tenge	2011

20.3 Comments

Category	Comments
N/A	N/A

Other general comments

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

Documents for this question:

- Guide for country reporting FRA 2015
- FRA 2015 Terms and Definitions

21.1 Categories and definitions

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

21.2 National data

21.2.1 Data sources

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

21.3 Data

Table 21a

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

Table 21b

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

21.4 Comments

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

Forests earmarked for conversion	N/A

Other general comments