



**Forestry Department**

**Food and Agriculture Organization of the United Nations**

**GLOBAL FOREST RESOURCES  
ASSESSMENT 2010**

**COUNTRY REPORT**

**KYRGYZSTAN**

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## The Forest Resources Assessment Programme

Sustainably managed forests have multiple environmental and socio-economic functions important at the global, national and local scales, and play a vital part in sustainable development. Reliable and up-to-date information on the state of forest resources - not only on area and area change, but also on such variables as growing stock, wood and non-wood products, carbon, protected areas, use of forests for recreation and other services, biological diversity and forests' contribution to national economies - is crucial to support decision-making for policies and programmes in forestry and sustainable development at all levels.

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Forest Resources Assessment Programme. This country report forms part of the Global Forest Resources Assessment 2010 (FRA 2010).

The reporting framework for FRA 2010 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes variables related to the extent, condition, uses and values of forest resources, as well as the policy, legal and institutional framework related to forests. More information on the FRA 2010 process and the results - including all the country reports - is available on the FRA Web site ([www.fao.org/forestry/fra](http://www.fao.org/forestry/fra) ).

The Global Forest Resources Assessment process is coordinated by the Forestry Department at FAO headquarters in Rome. The contact person for matters related to FRA 2010 is:

Mette Løyche Wilkie  
Senior Forestry Officer  
FAO Forestry Department  
Viale delle Terme di Caracalla  
Rome 00153, Italy

E-mail: [Mette.LoycheWilkie@fao.org](mailto:Mette.LoycheWilkie@fao.org)

Readers can also use the following e-mail address: [fra@fao.org](mailto:fra@fao.org)

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The Global Forest Resources Assessment Country Report Series is designed to document and make available the information forming the basis for the FRA reports. The Country Reports have been compiled by officially nominated country correspondents in collaboration with FAO staff. Prior to finalisation, these reports were subject to validation by forestry authorities in the respective countries.

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## Report preparation and contact persons

The present report was prepared by the following persons:

<b>Name (FAMILY NAME, First name)</b>	<b>Institution / address</b>	<b>E-mail</b>	<b>Tel/Fax</b>
Ajt kul Burhanov	The state agency on environment protection and forestry under the Government of Kyrgyz Republic, 720001, Bishkek, 228, Toktogul str.	aburhanov@mail.ru	+ 996 312 548842 + 996 312 547452
Chinara Yakupova	The state agency on environment protection and forestry under the Government of Kyrgyz Republic, Department of forest and hunting inventarization management, Kyrgyz Republic, 720005, Bishkek, 3, L.Tolstoy str.	chinaraya@rambler.ru	+ 996 312590156 + 996 312543933

## Introduction

The Kyrgyz forests are located in the mountainous areas at altitudes from 700 to 3600 meters above the sea level; they possess significant values and constitute a part of the national heritage.

On the 1<sup>st</sup> January 2008, the Forest Fund of the Kyrgyz Republic covered 3533,1 thousand hectares, of which – 928,4 thousand hectares, i.e. 4,65% of the total country's territory, were covered by forests.

Despite the relatively small total area, forests of Kyrgyzstan are of the great ecological importance for the global processes of the environmental conditions' regulation and prevention of negative aspects of climate change.

According to the Forest Code of the Kyrgyz Republic, all forests are considered of a special value, and are given an exceptional nature protection status, mainly aimed at the ecological, sanitary-hygienic, health-supporting and other protective objectives, prohibiting the industrial logging.

The fundamental background Forest Policy documents, namely the “*Concept of the Development of the Forest Sector of Kyrgyzstan up to the year 2025*”, “*National Forest Programme for 2005-2015*” and “*National Plan of Action for the Forest Sector Development for the period until 2010*”, are approved.

The availability of the high quality, concerted, complete, up-to-date, efficient and scientifically-grounded information is instrumental for any policy. The data/information, which are currently available in the forest sector, by their character and coverage, do not provide a possibility to draw a comprehensive picture on the status and dynamic of all forests and the Forest Fund in the Republic as a whole, on their main characteristics, quantitative and qualitative indicators. This is mainly due to lack of complete data on forests in the ownership of municipal bodies, forests on reserve lands, forests of Water Fund, etc. As before, the accomplished Simultaneous State Forest Fund Account for 2008 does not include these data.

With the contribution from the Kyrgyz-Swiss Programme of Support to Forestry the satellite images were acquired, and works on their decoding are currently being implemented. The results of decoding/deciphering of images have shown the existence of a significant area of forests outside the State Forest Fund, which constitute according to the preliminary knowledge some 572 thousand hectares. Consequently, taking into account this information, the forest cover of the country comes up to 7% of the total country's territory.

For defining the level of the completeness of data for the republic as a whole, the Government of the Kyrgyz Republic approved on 11 April 2008 the decision/ resolution №145 “*About the implementation of the National Forest Inventory of the Kyrgyz Republic*”. For carrying out the National Forest Inventory, the FAO Project TCP/KYR/3102 (D) “*Capacity Building for National Forest and Tree Resources Assessment and Monitoring*” was launched. On the basis of results of the National Forest Inventory, the information about forests and forest resources will be obtained in the scale of the whole country, independently on the ownership categories and the institutional/departmental affiliation. The preliminary results of the National Forest Inventory will be available at the end of 2010.

In this connection, the current National reporting on the Global Forest Resources Assessment has been prepared on the basis of the preliminary data/ information from the Simultaneous Account of the State Forest Fund of the Kyrgyz Republic for 1993, 1998, 2003 and 2008, national statistics, other sources, and presently do not contain the complete information about forests of the Kyrgyz Republic.

## 1 Table T1 – Extent of Forest and Other wooded land

### 1.1 FRA 2010 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 <i>in situ</i> . It does not include land that is predominantly under agricultural or urban land use.
Other wooded land	Land not classified as “ <i>Forest</i> ”, 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 <i>in situ</i> ; 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 “ <i>Forest</i> ” or “ <i>Other wooded land</i> ”.
Other land with tree cover (Subordinated to “ <i>Other land</i> ”)	Land classified as “ <i>Other land</i> ”, spanning 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.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.

### 1.2 National data

#### 1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Code of the Kyrgyz Republic	M	Categories, definitions and classification of Forest Fund land	1999	Legislative basis of the sustainable management of forest resources
Land Code of the Kyrgyz Republic	H	Categories, definitions and classification of Land Fund	1999	Legislative basis of the sustainable management of land resources
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Forest cover and Other wooded land	1993	Account, covering State Forest Fund and Special Protected Nature Territories/ areas (OOPT) of the Kyrgyz Republic covered by forests
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Forest cover and Other wooded land	1998	Account, covering State Forest Fund and Special Protected Nature Territories/ areas (OOPT) of the Kyrgyz Republic covered by forests
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Forest cover and Other wooded land	2003	Account, covering State Forest Fund and Special Protected Nature Territories/ areas (OOPT) of the Kyrgyz Republic covered by forests.

Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH */	M	Forest cover and Other wooded land	2009	Account, covering State Forest Fund and Special Protected Nature Territories/ areas (OOPT) of the Kyrgyz Republic covered by forests
Manual (Handbook, Guidance) for the field work, Kyrgyz-Swiss Programme of Support to Forestry	H	Categories, definitions and classification of Forest Fund lands	1998	“Spruce belt” of the Issyk-Kuhl oblast (region), <i>Juniperous</i> and <i>Juglans</i> forests of the KR south
“Kyrgyzstan in Figures”, official publication, National Statistical Committee of KR	H	Data from National statistical tables were used	2008	Data cover all the territory of the country

\*/ - State Agency for Environment Protection and Forestry

## 1.2.2 Classification and definitions

National class	Definition
Forest	Vegetation, which is represented by existing forest species, implementing different protective and other functions, and used for the wood production. The horizontal forest area has minimum canopy cover (crown closeness) of 10 percent, minimum breadth of 25 meters, and minimum height of 2 meters. The forests include the State Forest Fund (SFF) lands covered by forests, and forests of the municipal (communal) and private ownership.
State Forest Fund (SFF) of the Kyrgyz Republic	All forests and non-forest lands available for forestry needs, except forests in the municipal (communal) and private ownership, constitute the State Forest Fund.
Forest land	Land areas, which are suitable and intended for growing of forests, as well as those covered by the natural sparse stands/ trees and bushy vegetation (shrubs). Forest lands include areas covered by the forest vegetation and lands not covered by the forest vegetation.
Stocked (closed) forest land	Land areas occupied by young stands with the crown cover of 10 % and higher, and stands of other age classes/ groups, as well as land areas occupied by shrubs (bushes), where stands of trees species can't be established without special forest-amelioration work, or where special shrubs (bushes) management activities can be organized. They include the planted forests (plantations) areas.
Other wooded land	Land areas, which include non-stocked (open) planted forests, forest nurseries, plantations, areas not covered by forest.
Non-stocked planted forests	Land areas with the forest stands that have not reached the stage of the crown closeness.
Forest nurseries, plantations	Land areas, which are included into the lands covered by the forest vegetation, and which are intended for growing the forest planting material.
Open (un-stocked) forest land	Forest land areas not covered by forest, but intended for its regeneration/ reforestation. Include natural sparse stands/ trees and the reforestation fund lands.
Reforestation Fund	Fund that includes forest lands suitable for growing and regeneration of forest (clear-cut areas, burned areas, openings, waste lands).
SFF non-forest land	Land areas of the State Forest Fund (SFF) not suitable for growing forest. Include swamps/ bogs, water basins, roads, glaciers, pastures, arable lands, etc.
Other land	Include non-forest lands (SFF), agricultural lands, other land areas, covered by the woody vegetation, swamps, and other lands, which are not included in the SFF.
Inland water bodies	Includes major rivers, lakes and water reservoirs.

**Note:** The above national definitions and classifications do not completely correspond to the definitions applied in FRA-2010, that is why there is a need in harmonizing the definitions at the international level, and bringing them to a common standard.

### 1.2.3 Original data

National category/ class	1993 1000 ha	1998 1000 ha	2003 1000 ha	2008 1000 ha
<b>Forest lands</b>	<b>1132.3</b>	<b>1143.0</b>	<b>1173.8</b>	<b>1295.3</b>
Stocked (closed) forest land (SFF)	843.0	849.5	864.9	928.4
Other wooded land	289.3	293.5	308.9	366.9
Of which:				
Un-stocked planted forests	19.9	23.0	29.0	18.6
Forest nurseries, plantations	1.2	1.4	1.2	1.2
Open (un-stocked) forest land	268.2	269.1	278.7	347.1
Of which:				
Sparse stands/ trees	133.5	155.8	173.2	148.1
Reforestation Fund	134.7	113.3	105.5	199.0
<b>Non-forest lands</b>				
Other land */	17983.7	17973.0	17942.2	15582.9
Of which:				
Non-forest land (SFF)	1729.0	2020.2	2147.7	2237.8
Inland water bodies	879.0	879.0	879.0	879.0
<b>TOTAL</b>	<b>19995</b>	<b>19995</b>	<b>19995</b>	<b>19995</b>

\*/ approximated data

## 1.3 Analysis and processing of national data

### 1.3.1 Calibration

Data sources	Total Land Area (1000 ha)	Total Water Area (1000 ha)
National data	19995 <sup>1/</sup>	879 <sup>2/</sup>
FAOSTAT	19990	810
Difference	5	69
Conversion factor	0,999	0,92

<sup>1/</sup> Official territory/ area according to the National Statistical Committee (NSC) of the Kyrgyz Republic.

<sup>2/</sup> 4.4 % of the total territory of the country, according to the NSC of the Kyrgyz Republic.

**Note:** The calibration of data was implemented without an application of the conversion factor, as the national quantitative data are of the official character. That is why the difference between the FAOSTAT data on “Total area” and “Inland water bodies”, and the corresponding national data, was regulated within the variable “Other land”.

### 1.3.2 Estimation and forecasting

National category/ class	1990 <sup>1/</sup> 1000 ha	2000 <sup>2/</sup> 1000 ha	2005 <sup>3/</sup> 1000 ha	2010 <sup>4/</sup> 1000 ha
<b>Forest lands</b>				
Stocked (closed) forest land	836.4	858.3	869.3	953.8
Other wooded land	283.4	303.0	312.8	390.1
<b>Non-forest lands</b>				
Other land	18060.2	18018.7	17997.9	17836.1
Inland water bodies	810.0	810.0	810.0	810.0
<b>TOTAL</b>	<b>19990</b>	<b>19990</b>	<b>19990</b>	<b>19990</b>

<sup>1/</sup> Data for the year 1990 were evaluated (assessed), when preparing FRA-2005 reporting;

<sup>2</sup> Data for the year 2000 were evaluated (assessed), when preparing FRA-2005 reporting;

<sup>3</sup> Data for the year 2005 were evaluated (assessed), when preparing FRA-2005 reporting;

<sup>4</sup> Data for the year 2010 were forecasted using the linear extrapolation of data for the basis period 2003-2008, where the average annual changes correspond: Stocked (closed) forest land – 12,7 thousand hectares, Other forest land – 11,6 thousand hectares

### 1.3.3 Reclassification into FRA 2010 categories

National category/ class	FRA Categories			
	Forest	OWL	Other lands	TOTAL
Stocked (closed) forest land	100%			100%
Other wooded land		100%		100%
Other land			100%	100%

### 1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	836.4	858.3	869.3	953.8
Other wooded land	283.4	303.0	312.8	390.1
Other land	18060.2	18018.7	17997.9	17836.1
... of which:				
Other land with tree cover	n.a.	n.a.	n.a.	n.a.
Inland water bodies	810.0	810.0	810.0	810.0
<b>TOTAL</b>	<b>19990</b>	<b>19990</b>	<b>19990</b>	<b>19990</b>

### 1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest	Definitions have not been changed	During the period 2003-2008 the trend shows a sharp increase of the land covered by forests, mainly due to including in the Forest Fund Account forest lands from the State Land Fund
Other wooded land	Definitions have not been changed	During the period 2003-2008 the trend shows a sharp increase of the category «Other wooded land», mainly due to including in the Forest Fund Account forest lands from the State Land Fund
Other land	Definitions have not been changed	There are no accurate and agreed/concerted, national data on the category «Other lands»
Other land with tree cover	Definitions have not been changed	There are no complete and agreed/concerted national data on the category «Other land with tree cover »
Inland water bodies	Definitions have not been changed; The variable «Inland water bodies» was taken from the FAOSTAT database	No changes in the FAOSTAT database in the value of the variable «Inland water bodies» have been observed

**Other general comments to the table**

The priority direction of the Forest Policy of the Kyrgyz Republic is the increase/expansion of forest areas. As the result, the expansion of forest areas during the period 1993-2008 was reached, mainly due to the following reasons:

- Transfer of lands from State Land Fund to the State Forest Fund;
- Natural regeneration of forests;
- Discontinuation of clear-cuts;
- Transfer of un-stocked planted forests into the stocked (closed) forest lands.

The main weak point of the available national data is the lack of the complete coverage of forests on the country's territory. According to the Land Code (1999), land areas of the Kyrgyz Republic are sub-divided into 7 categories, and are found in the state, municipal and private ownership. Forests are available in all the categories of the Land Fund areas. Data on quantitative and qualitative characteristics of forests according to all land categories and forms ownership (except the state one) are not available, on the following reason: forest accounting and forest inventory are being implemented by the responsible forestry body exceptionally on the State Forest Fund lands and Special Protected Nature territories.

**Expected year for completion of ongoing/planned national forest inventory and/or RS survey / mapping**

Verification of data on the spot (field work)	2009
Mapping inspection with the support of the Remote Sensing methods	2010

## 2 Table T2 – Forest ownership and management rights

### 2.1 FRA 2010 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.
Private ownership	Forest owned by individuals, families, communities, private co-operatives, corporations and other business entities, private religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
Individuals (sub-category of Private ownership)	Forest owned by individuals and families.
Private business entities and institutions (sub-category of Private ownership)	Forest owned by private corporations, co-operatives, companies and other business entities, as well as private non-profit organizations such as NGOs, nature conservation associations, and private religious and educational institutions, etc.
Local communities (sub-category of Private ownership)	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area. The community members are co-owners that share exclusive rights and duties, and benefits contribute to the community development.
Indigenous / tribal communities (sub-category of Private ownership)	Forest owned by communities of indigenous or tribal people.
Other types of ownership	Other kind of ownership arrangements not covered by the categories above. Also includes areas where ownership is unclear or disputed.
<b>Categories related to the holder of management rights of public forest resources</b>	
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 institutions	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities, private co-operatives, private non-profit 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.

## 2.2 National data

### 2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Constitution of the Kyrgyz Republic	H	Terminology and definitions related to the ownership	2007	-
Forest Code of the Kyrgyz Republic	M	Terminology and definitions related to the ownership	1999	Legal basis on the property rights on forests
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Data / information on the State forest ownership	1993	Account, covering forests of State Forest Fund and Special Protected Nature Territories (OOPT) of the Kyrgyz Republic
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Data / information on the State forest ownership	1998	Account, covering forests of State Forest Fund and Special Protected Nature Territories (OOPT) of the Kyrgyz Republic
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Data / information on the State forest ownership	2003	Account, covering forests of State Forest Fund and Special Protected Nature Territories (OOPT) of the Kyrgyz Republic
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Data / information on the State forest ownership	2009	Account, covering forests of State Forest Fund and Special Protected Nature Territories (OOPT) of the Kyrgyz Republic

### 2.2.2 Classification and definitions

National class	Definition
Ownership	The Kyrgyz Republic recognizes/ admits and protects the private, state, municipal and other forms of the property ownership. All forests and lands in the state, municipal and private ownership, left/given for the forestry needs, constitute the united Forest Fund of the Kyrgyz Republic.
Management rights over the State forests	The State hands over the administration/ management and use of the State Forest Fund on conditions of leasing and communal keeping of forestry, which is based on the joint work on forest exploitation / management and forest-growing / afforestation by the economic associations and societies, organisationally established on the basis of family and congenital ties /relationship of people leaving together on the State Forest Fund lands, which are being leased.
State ownership	The Forest Fund belongs to the State. The State Forest Fund is under the sole / exclusive State ownership
Private ownership	According to the constitutional regulation of the ownership rights on land, the private forest lands are assumed on the conditions of the allocation /assignment of lands areas in private ownership for the man-made forest growing.
Municipal ownership	Forests in the ownership of institutions of local government (self-government)

### 2.2.3 Original data

National category/ class	1993 1000 ha	1998 1000 ha	2003 1000 ha
State ownership	843.0	849.5	864.9
Of which: Forests handed over to local communities for the joint forest management for their use on the long-term basis	0	0	9.4
<b>TOTAL</b>	<b>843.0</b>	<b>849.5</b>	<b>864.9</b>

## 2.3 Analysis and processing of national data

### 2.3.1 Calibration

### 2.3.2 Estimation and forecasting

National category/ class	1990 <sup>1/</sup> 1000 ha	2000 <sup>2/</sup> 1000 ha	2005 <sup>3/</sup> 1000 ha
State ownership	836.4	858.3	869.3
Of which: Forests handed over to local communities for the joint forest management for their use on the long-term basis	0	0	9.4
<b>TOTAL</b>	<b>836.4</b>	<b>858.3</b>	<b>869.3</b>

<sup>1/</sup> Data for the year 1990 were evaluated (assessed) when preparing FRA-2005 reporting;

<sup>2/</sup> Data for the year 2000 were evaluated (assessed) when preparing FRA-2005 reporting;

<sup>3/</sup> Data for the year 2005 were evaluated (assessed) when preparing FRA-2005 reporting;

### 2.3.3 Reclassification into FRA 2010 categories

National category/ class	FRA Categories			
	Forest	Private ownership	Municipal ownership	Total
State ownership	99%			100%
Of which: Forests handed over to local communities for the joint forest management for their use on the long-term basis	1%			

## 2.4 Data for Table T2

**Table 2a - Forest ownership**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
State ownership	836.4	858.3	869.3
Private ownership*/	0	0	0
...of which: Individuals/households	0	0	0
... of which: Private business entities and institutions	0	0	0
... of which: Local communities	0	0	0
... of which: Indigenous / tribal communities	0	0	0
Other types of ownership	0	0	0
<b>TOTAL</b>	836.4	858.3	869.3

\*/ Data on categories “Private ownership” and “Municipal ownership” are currently not available.

Does ownership of trees coincide with ownership of the land on which they are situated?	Y	Yes
		No
If No above, please describe below how the two differ:		

**Table 2b - Holders of management rights of public forest resources**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public/ State Administration	836.4	858.3	859.9
Individuals/households	0	0	0
Private business entities and institutions	0	0	0
Communities	0	0	9.4
Other	0	0	0
<b>TOTAL</b>	836.4	858.3	869.3

## 2.5 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
State ownership	Definitions are from the database of the normative legal rules of the Kyrgyz Republic	State forest ownership categories are changing in the increase direction mainly due to including into the State Forest Fund accounting forest areas from the State Land Fund reserves
Private ownership	Definitions are from the database of the normative legal rules of the Kyrgyz Republic	Currently, there are no data on private forest ownership
Other types of ownership	Definitions are from the database of the normative legal rules of the Kyrgyz Republic	Currently, there are no data on other types of forest ownership (municipal)

Management rights	Definitions are from the database of the normative legal rules of the Kyrgyz Republic	According to the National Forest Policy of the Kyrgyz Republic, State forests are managed currently together with the population and local community, to combat rural poverty, support the level of employment and provide the population with income and means of subsistence (livelihood)
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**Other general comments to the table**

Data are not complete and based on preliminary data/ information

### 3 Table T3 – Forest designation and management

#### 3.1 FRA 2010 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.
Protected areas	Areas especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
<b>Categories of primary designated functions</b>	
Production	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Protection of soil and water	Forest area designated primarily for protection of soil and water.
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.
Social services	Forest area designated primarily for social services.
Multiple use	Forest area designated primarily for more than one purpose and where none of these alone is considered as the predominant designated function.
Other	Forest areas designated primarily for a function other than production, protection, conservation, social services or multiple use.
No / unknown	No or unknown designation.
<b>Special designation and management categories</b>	
Area of permanent forest estate (PFE)	Forest area that is designated to be retained as forest and may not be converted to other land use.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.
Forest area under sustainable forest management	To be defined and documented by the country.
Forest area with management plan	Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, which is periodically revised.

#### 3.2 National data

##### 3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Table coverage	1993	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Table coverage	1998	State Forest Fund territory

Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Table coverage	2003	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Table coverage	2009	State Forest Fund territory

### 3.2.2 Classification and definitions

National class	Definition
Forest functions	Economic (practical) designation of forests. There are Water protecting, Protective, Sanitary-hygienic and health-supporting (recreation), Special, and Forest exploitation functions.
Water protection functions	These functions are implemented by the protected (“forbidding”) belts of forests along the riverbanks /shores, lakes, water reservoirs, and other water objects.
Conservation functions	These functions are implemented by the soil erosion preventing forests, protective forest belts along the railroads and auto-roads of the state, republic or regional importance, state forest belts, “ <i>bayiratch</i> ” (gorge, ravine, gully) forests, which are of high importance for the protection of the environment.
Sanitary-hygienic and health supporting (recreation) function	These functions are implemented by the forests of the “green belts” (zones) around cities, other settlements and industrial enterprises.
Special functions (designated for special purposes)	These functions are implemented by forests constituting the reservation/ preservation fund (specifically protected nature territories – forests of natural parks (“ <i>zapovednic</i> ”), national nature parks, wildlife preservation areas (“ <i>zakaznik</i> ”) vegetation / plants and animals’ kingdom of unique ecosystems, specifically preserved forest plots/ areas, forests of scientific and historical importance, natural monuments), walnut producing/ trade zones, forest fruits producing stands.
Fruits/ nuts producing forest stands	Areas covered by the forest vegetation, which were established by planting of seedlings and by seeding of seeds, mainly for the production of non-wood products.
Exploitable forests function (Forest exploitation function)	These functions are implemented by forests, where industrial cutting/felling of wood, and other forms of harvesting of other forest products/ raw material, are taking place (Exploitable forests).
<b>Special designation and management categories</b>	
Area of permanent forest estate (PFE)	Forest area which cannot be converted into the other category of the Land Fund, except the category “ <i>Special Protected Nature Territories/ areas</i> ”.
Forest area within protected areas	Forest area which is included into the officially established Special Protected Nature Territories/ lands
Forest area under sustainable forest management	Forest area where the sustainable forest management is being implemented. Sustainable forest management – this is forming/ establishing and realisation of the system of actions which allow to preserve the forest resources, and continuous sustainable multi-functional use of forests, according to overall principals of the sustainable development, adjusted to the socio-economic conditions in the country.
Forest area with management plan	Forest area where the sustainable forest management is being implemented according to the elaborated forest inventory and organization projects (management plans) for the forthcoming revision period, when the complex/ comprehensive/ complete evaluation of forest management is to be given.

### 3.2.3 Original data

#### Original data (a)

National class	Area (1000 ha)			
	1993	1998	2003	2008
<b>Forest</b>	<b>843.0</b>	<b>849.5</b>	<b>864.9</b>	<b>928.4</b>
Conservation and water protection functions	683.8	670.9	678.8	702.0
Sanitary-hygienic and health supporting (recreation) function	16.2	13.1	13.7	11.4
Special functions (designated for special purposes)	143.0	165.5	172.4	215.0
Of which:				
Reservation/ preservation fund	33.7	53.6	59.1	77.4
Fruits/ nuts producing forest stands	109.3	111.9	113.3	137.6
Exploitable forests function (Forest exploitation function) <sup>*/</sup>	0	0	0	0

<sup>\*/</sup> According to the Forest Code of the Kyrgyz Republic, all forests in Kyrgyzstan, as the especially valuable asset, are given the exceptional nature protection status aimed mainly at ecological and sanitary-hygienic and health supporting (recreation) functions/ targets, forbidding any industrial wood harvesting.

#### Original data (b)

National category	Forest area (1000 hectares)			
	1993	1998	2003	2008
Area of permanent forest estate (PFE)	702.1	770.8	836.0	846.3
Forest area within protected areas	11.1	45.2	50.3	71.7
Forest area under sustainable forest management	702.1	770.8	836.0	846.3
Forest area with management plan	702.1	770.8	836.0	846.3

### 3.3 Analysis and processing of national data

#### 3.3.1 Calibration

#### 3.3.2 Estimation and forecasting

National category/ class	Area (1000 ha)		Average change/yr	Area (1000 ha)			
	2003	2008		1990 <sup>1/</sup>	2000 <sup>2/</sup>	2005 <sup>3/</sup>	2010 <sup>4/</sup>
<b>Forest</b>	<b>864.9</b>	<b>928.4</b>	<b>12.7</b>	<b>836.4</b>	<b>858.3</b>	<b>869.3</b>	<b>953.8</b>
Conservation and water protection functions	678.8	702.0	4.64	685.3	680.3	677.8	711.3
Sanitary-hygienic and health supporting (recreation) function	13.7	11.4	-0.46	16.9	14.4	13.2	10.5
Special functions (designated for special purposes)	172.4	215.0	8.52	134.2	163.6	178.3	232.0
Of which:							
Reservation/ preservation fund	59.1	77.4	3.66	26.1	51.5	64.2	84.7
Fruits/ nuts producing forest stands	113.3	137.6	4.86	108.1	112.1	114.1	147.3
Exploitable forests function (Forest exploitation function)	0	0	0	0	0	0	0

<sup>1/</sup> Data for the year 1990 were evaluated (assessed) when preparing FRA-2005 reporting;

<sup>2/</sup> Data for the year 2000 were evaluated (assessed) when preparing FRA-2005 reporting;

<sup>3/</sup> Data for the year 1990 were forecasted when preparing FRA-2005 reporting;

<sup>4/</sup> Data for the year 2010 were forecasted using the linear extrapolation of data for the basis period 2003-2008.

National category	Forest area (1000 hectares)				Forest area (1000 hectares)			
	1993	1998	2003	2008	1990	2000	2005	2010
Area of permanent forest estate (PFE)	702.1	770.8	836.0	846.3	661.9	795.8	840.1	850.4
Forest area within protected areas	9.8	45.2	50.3	71.7	n.a.* <sup>3/</sup>	38.2	58.9	80.3
Forest area under sustainable forest management	702.1	770.8	836.0	846.3	661.9	795.8	840.1	850.4
Forest area with management plan	702.1	770.8	836.0	846.3	661.9	795.8	840.1	850.4

\*When analyzing and evaluating data for 1993 on the category “Forest area within protected areas” we have got a negative figure, that is why these data were replaced by ”n.a.”

### 3.3.3 Reclassification into FRA 2010 categories

#### Reclassification (a)

National class	FRA Categories					
	Production	Protection of soil and water	Conservation of biodiversity	Social services	Multiple use	No / unknown
<b>Forest</b>						
Conservation and water protection functions		100%				
Sanitary-hygienic and health supporting (recreation) function				100%		
Special functions (designated for special purposes)						
Of which:						
Reservation/ preservation fund			100%			
Fruits/ nuts producing forest stands					100%	
Exploitable forests function (Forest exploitation function)	100%					

Reclassification (b)

National class	FRA Categories			
	Area of permanent forest estate (PFE)	Forest area within protected areas	Forest area under sustainable forest management	Forest area with management plan
Area of permanent forest estate (PFE)	100%			
Forest area within protected areas		100%		
Forest area under sustainable forest management			100%	
Forest area with management plan				100%

3.4 Data for Table T3

Table 3a – Primary designated function

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	0	0	0	0
Protection of soil and water	685.3	680.3	677.8	711.3
Conservation of biodiversity	26.1	51.5	64.2	84.7
Social services	16.9	14.4	13.2	10.5
Multiple use	108.1	112.1	114.1	147.3
Other categories	0	0	0	0
No / unknown	0	0	0	0
<b>TOTAL</b>	<b>836.4</b>	<b>858.3</b>	<b>869.3</b>	<b>953.8</b>

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate (PFE)	661.9	795.8	840.1	850.4
Forest area within protected areas	n.a.	38.2	58.9	80.3
Forest area under sustainable forest management	661.9	795.8	840.1	850.4
Forest area with management plan	661.9	795.8	840.1	850.4

### 3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production	National definition was arranged/ adjusted to the FRA 2010 definition	Final / main/ principal felling / harvest is forbidden
Protection of soil and water	National definition was arranged/ adjusted to the FRA 2010 definition	The increase of the area was due to including into the Forest Fund Account the forest lands from the State Land Fund.
Conservation of biodiversity	National definition was arranged/ adjusted to the FRA 2010 definition	The increase of the area was due to including the newly established special protected nature territories.
Social services	National definition was arranged/ adjusted to the FRA 2010 definition	The decrease of the area was due to illegal logging and clear-cutting of forests for building / construction in the “green belts/ zones” around cities, other settlements and industrial enterprises.
Multiple use	National definition was arranged/ adjusted to the FRA 2010 definition	The increase of the area was due to including into the Forest Fund Account the forest lands from the State Land Fund.
Other categories	None	None
No / unknown	None	None
Area of permanent forest estate (PFE)	Forests on the agricultural lands are not included into this report	The policy of the country is aimed at the preservation / protection and increase/ augmentation of forests.
Forest area within protected areas	The FRA 2010 definition coincide with the national definition (equivalent)	The policy of the country is aimed at the widening of the network of special protected nature territories.
Forest area under sustain-able forest management	The national definition compiled by the expert was used in the report. Forests on the agricultural lands are not included.	One of the targets of the national forest policy – securing/ guaranteeing the sustainable development of the forestry sector.
Forest area with management plan	The national definition compiled by the expert was used in the report. Forests on the agricultural lands are not included.	According to the main objectives of the national forest policy of the Kyrgyz Republic, the state planning of the forestry development is being implemented. The basis for the state planning is established by the forest management planning material (forest management planning projects), where the complex / all-round evaluation of these forest management is given.

#### Other general comments to the table

The reported data are not complete

## 4 Table T4 – Forest characteristics

### 4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> 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).
<b>Characteristics categories</b>	
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.
Other naturally regenerated forest of introduced species ( <i>sub-category</i> )	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species ( <i>sub-category</i> )	Planted forest, where the planted/seeded trees are predominantly of introduced species.
<b>Special categories</b>	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

### 4.2 National data

#### 4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Table coverage	1993	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Table coverage	1998	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Table coverage	2003	State Forest Fund territory

Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Table coverage	2009	State Forest Fund territory
Manual (Handbook, Guidance) for the field work, Kyrgyz-Swiss Programme of Support to Forestry	H	Terms, definitions and classification of Forest Fund lands	1998	“Spruce belt” of the Issyk-Kuhl oblast (region), <i>Juniperous</i> and <i>Juglans</i> forests of the south of the Kyrgyz Republic

#### 4.1.2 Classification and definitions

National class	Definition
Naturally regenerated forest	Land areas covered by the naturally regenerated forest vegetation, which include two zones: Non-exploitable forest zone and Forest exploitation zone
- Non-exploitable forest zone	Land areas covered by the naturally regenerated forest vegetation, where neither technical, nor economic forest utilisation, as well neither planting of forests or collateral use/activities, are allowed
- Forest exploitation zone	Land areas covered by the forest vegetation, where wood cutting (except clear-cut) and removals, as well as planting of forests or/and collateral use/ activities, are possible.
Planted forest areas (zone also available for planting forests and collateral use/ activities)	Land areas covered by forest vegetation, which was established through seeding or planting

#### 4.2.3 Original data

National category	Forest area (1000 hectares)			
	1993	1998	2003	2008
<b>Forest</b>	<b>843.0</b>	<b>849.5</b>	<b>864.9</b>	<b>928.4</b>
Naturally regenerated forest	793.4	794.1	801.5	869.8
Non-exploitable forest zone	238.0	238.2	240.5	260.9
Forest exploitation zone	555.4	555.9	561.0	608.9
Planted forest areas	49.6	55.4	63.4	58.6

### 4.3 Analysis and processing of national data

#### 4.3.1 Calibration

Not needed.

#### 4.3.2 Estimation and forecasting

National category	Forest area (1000 hectares)				Forest area (1000 hectares)			
	1993	1998	2003	2008	1990	2000	2005	2010
<b>Forest</b>	<b>843.0</b>	<b>849.5</b>	<b>864.9</b>	<b>928.4</b>	<b>836.4</b>	<b>858.3</b>	<b>869.3</b>	<b>953.8</b>
Naturally regenerated forest	793.4	794.1	801.5	869.8	790.9	799.0	803.1	897.1
Non-exploitable forest zone	238.0	238.2	240.5	260.9	237.2	239.7	241.0	269.1
Forest exploitation zone	555.4	555.9	561.0	608.9	553.7	559.3	562.1	628.0
Planted forest areas	49.6	55.4	63.4	58.6	45.5	59.3	66.2	56.7

#### 4.3.3. Reclassification into FRA 2010 categories

National class	FRA Categories		
	Primary forests	Other naturally regenerated forest	Planted forest stands
<b>Forest</b>			
Naturally regenerated forest			
Non-exploitable forest zone	100%		
Forest exploitation zone		100%	
Planted forest areas			100%

### 4.4 Data for Table T4

Table 4a

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forests	237.2	239.7	241.0	269.1
Other naturally regenerated forest	553.7	559.3	562.1	628.0
... of which forests of introduced species	n.a.	n.a.	n.a.	n.a.
Planted forest	45.5	59.3	66.2	56.7
... of which forests of introduced species	n.a.	n.a.	n.a.	n.a.
<b>TOTAL</b>	<b>836.4</b>	<b>858.3</b>	<b>869.3</b>	<b>953.8</b>

**Table 4b**

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	0	0	0	0
Bamboo (Forest and OWL)	0	0	0	0

#### 4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest	National definition was adjusted to the FRA 2010 definition	The increase of the area was due to including into the Forest Fund Account the forest lands from the State Land Fund.
Other naturally regenerated forest	National definition was adjusted to the FRA 2010 definition	The increase of the area was due to including into the Forest Fund Account the forest lands from the State Land Fund.
Planted forest	National definition was adjusted to the FRA 2010 definition	The decrease of the area was due to the low survival rate (capacity of survival) of man-made forest cultures.

#### Other general comments to the table

Data for 1990, 2000, 2005 were assessed and forecasted when preparing the country reporting on FRA-2005; Data for the year 2010 were forecasted by applying the liner extrapolation of data from the basis period 2003-2005.

## 5 Table T5 – Forest establishment and reforestation

### 5.1 FRA 2010 Categories and definitions

Term	Definition
Afforestation	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest.
Reforestation	Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
Natural expansion of forest	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).

### 5.2 National data

#### 5.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Code of the Kyrgyz Republic	M	Categories and definitions	1999	Legal principals / fundamentals
Statistical publication / book “ <i>Environment protection of the Kyrgyz Republic</i> ”	M	Table coverage	2008	Territory of the country

#### 5.2.2 Classification and definitions

National class	Definition
Afforestation / Forest-growing	Establishment of forests stands on lands where they have not been growing earlier. Activities/actual work on forest growing is being implemented on the not-forest lands of the Forest Fund, and on other lands, which are considered suitable for forest growing.
Reforestation	Establishment of man-made forest stands on lands, which have not been earlier covered by forest. Forest growing is being implemented on clear-cut areas, burned-out forest lands and other territories of the Forest Fund, which had earlier been covered by forest according to the forest management documents
Conversion of forest stands	Establishment of man-made forest stands on lands, cleared after the selective cutting of low-quality stands, thus providing replacement of the low-quality elements in such stands
Natural expansion of forest	Expansion of forests through natural changing (transformation) of lands from certain land categories to forest land categories.

### 5.2.3 Original data

National category	Annual establishment of Forests <sup>1/</sup> (ha/year)			Of which: Introduced species <sup>1/</sup> (ha/year)		
	1990	2000	2005	1990	2000	2005
Afforestation / Forest-growing	35	40	177	ND	ND	ND
Reforestation	3029	3313	2934	ND	130	189
... of which: Conversion of forest stands	ND	ND	133	ND	ND	ND
Natural expansion of forest	ND	ND	ND	ND	ND	ND

1) The data are the annual parameters, adjusted to the average parameters for the 5-year periods

## 5.3 Analysis and processing of national data

### 5.3.1 Reclassification into FRA 2010 categories

National class	FRA Categories			
	Afforestation	Reforestation	Conversion of forest stands	Natural expansion of forest
Afforestation / Forest-growing	100%			
Reforestation		100%		
... of which: Conversion of forest stands			100%	
Natural expansion of forest				100%

## 5.4 Data for Table T5

FRA 2010 Categories	Annual forest establishment (hectares/year)			...of which: of introduced species <sup>1/</sup> (hectares/year)		
	1990	2000	2005	1990	2000	2005
Afforestation / Forest-growing	35	40	177	n.a.	n.a.	n.a.
Reforestation	3029	3313	2934	n.a.	130	189
... of which: Conversion of forest stands	n.a.	n.a.	133	n.a.	n.a.	n.a.
Natural expansion of forest	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

**Note:** <sup>1/</sup>The figures for the reporting years refer to the averages for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively.

## 5.5 Comments to Table T5

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Afforestation	National definition was adjusted to FRA 2010 definition	According to the National Plan of Actions of the Kyrgyz Republic for 2006-2010, the annual planting of forest on the lands where there has not been an earlier forest-growing, is equal to 1000 ha.
Reforestation	National definition was adjusted to FRA 2010 definition	According to the National Plan of Actions of the Kyrgyz Republic for 2006-2010, the annual planting of forest on the lands, earlier covered by forests is equal to 2000 ha.
Natural expansion of forest	National definition was adjusted to FRA 2010 definition	There are no data on the natural expansion of forest on the reason of the absence of the works on the accounting of these lands.

<b>Other general comments to the table</b>
The reported data are not complete

## 6 Table T6 – Growing stock

### 6.1 FRA 2010 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees more than X cm in diameter at breast height (or above buttress if these are higher). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.
Growing stock of commercial species	Growing stock (see the definition above) of commercial species.

### 6.2 National data

#### 6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Table coverage	1993	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Table coverage	1998	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Table coverage	2003	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Table coverage	2009	State Forest Fund territory

## 6.2.2 Classification and definitions

National class	Definition
Growing stock (of forest stand)	Volume stem wood of all living trees in given forest stand.

## 6.2.3 Original data

### Original data (a)

National class	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1993	1998	2003	2008	1993	1998	2003	2008
Total growing stock	23.50	24.48	28.87	40.15	NDA	NDA	NDA	NDA
... of which: coniferous forests	17.20	17.64	20.92	28.59	NDA	NDA	NDA	NDA
... of which: broadleaved forests	6.3	6.84	7.95	11.56	NDA	NDA	NDA	NDA
Growing stock of commercial species	0	0	0	0	0	0	0	0

### Original data (b)

National class	Growing Stock in Forests (million cubic meters)			
	1993	1998	2003	2008
Spruce - <i>Picea Schrenkiana</i>	12.38	12.46	15.35	18.73
Juniper (var. tree) - <i>Juniperus turkestanica</i>	3.31	3.46	3.78	8.12
Walnut - <i>Juglans</i>	2.38	2.45	2.82	4.66
Maple - <i>Acer turkestanica</i>	1.10	1.18	1.22	1.67
Juniper (var. creeping) - <i>Juniperus turkestanica</i>	0.75	0.75	0.75	0.69
Fir – <i>Abies</i> spp.	0.38	0.59	0.63	0.59
Poplar – <i>Populus</i> spp.	0.28	0.40	0.59	0.34
Apple-tree – <i>Malus</i> spp.	0.36	0.40	0.45	0.68
Birch – <i>Betula</i> spp.	0.14	0.23	0.35	0.43
Pine – <i>Pinus</i> spp.	0.29	0.31	0.33	0.30
Remainder of species	2.13	2.25	2.6	3.94
<b>TOTAL</b>	<b>23.50</b>	<b>24.48</b>	<b>28.87</b>	<b>40.15</b>

## 6.3 Analysis and processing of national data

### 6.3.1 Calibration

Not needed.

### 6.3.2 Estimation and forecasting

Original data (a)

National class	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	21.89	27.26	29.94	44.66	NDA	NDA	NDA	NDA
... of which: coniferous forests	16.08	19.80	21.66	31.66	NDA	NDA	NDA	NDA
... of which: broadleaved forests	5.81	7.46	8.28	13.00	NDA	NDA	NDA	NDA
Growing stock of commercial species	0	0	0	0	0	0	0	0

Original data (b)

National class	Growing stock in forests (million cubic meters)		
	1990	2000	2005
Spruce - <i>Picea Schrenkiana</i>	11.49	14.46	15.94
Juniper (var. tree) - <i>Juniperus turkestanica</i>	3.17	3.64	3.87
Walnut - <i>Juglans</i>	2.25	2.69	2.91
Maple - <i>Acer turkestanica</i>	1.06	1.18	1.25
Juniper (var. creeping) - <i>Juniperus turkestanica</i>	0.75	0.75	0.75
Fir - <i>Abies</i> spp.	0.30	0.55	0.68
Poplar - <i>Populus</i> spp.	0.19	0.50	0.65
Apple-tree - <i>Malus</i> spp.	0.33	0.42	0.47
Birch - <i>Betula</i> spp.	0.28	0.32	0.34
Pine - <i>Pinus</i> spp.	0.08	0.29	0.39
Remainder of species	1.99	2.46	2.69
<b>TOTAL</b>	<b>21.89</b>	<b>27.26</b>	<b>29.94</b>

### 6.3.3 Reclassification into FRA 2010 categories

National classes correspond to (coincide with) FRA-2010 categories

## 6.4 Data for Table T6

Table 6a – Growing stock

FRA 2010 category	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	21.89	27.26	29.94	44.66	n.a.	n.a.	n.a.	n.a.
... of which: coniferous forests	16.08	19.80	21.66	31.66	n.a.	n.a.	n.a.	n.a.
... of which: broadleaved forests	5.81	7.46	8.28	13.00	n.a.	n.a.	n.a.	n.a.
Growing stock of commercial species	0	0	0	0	0	0	0	0

**Table 6b – Growing stock of the 10 most common species**

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 <sup>st</sup>	<i>Picea Schrenkiana</i>	Spruce	11.49	14.46	15.94
2 <sup>nd</sup>	<i>Juniperus turkestanica</i>	Juniper (var. tree)	3.17	3.64	3.87
3 <sup>rd</sup>	<i>Juglans</i>	Walnut	2.25	2.69	2.91
4 <sup>th</sup>	<i>Acer turkestanica</i>	Maple	1.06	1.18	1.25
5 <sup>th</sup>	<i>Juniperus turkestanica</i>	Juniper (var. creeping)	0.75	0.75	0.75
6 <sup>th</sup>	<i>Abies</i> spp.	Fir	0.30	0.55	0.68
7 <sup>th</sup>	<i>Populus</i> spp.	Poplar	0.19	0.50	0.65
8 <sup>th</sup>	<i>Malus</i> spp.	Apple-tree	0.33	0.42	0.47
9 <sup>th</sup>	<i>Pinus</i> spp.	Pine	0.28	0.32	0.34
10 <sup>th</sup>	<i>Betula</i> spp.	Birch	0.08	0.29	0.39
Remaining			1.99	2.46	2.69
<b>TOTAL</b>			<b>21.89</b>	<b>27.26</b>	<b>29.94</b>

**Table 6c – Specification of threshold values**

Item	Value	Complementary information
Minimum diameter (cm) at breast height for trees included into the growing stock (X)	8 cm	
Minimum diameter (cm) at the upper part of the stem for calculating of the volume of growing stock (Y)	6 cm	Subject of a change between 4 and 8 depending on the species
Minimum diameter (cm) of branches/twigs, included into the growing stock volume (W)	no	Branches/twigs are not included
Stem volume from “ground level” (AL) or “stump height”(AS) up to a top diameter	AS	Above stump

## 6.5 Comments to Table T6

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Growing stock	Definition has not been changed	The increase was due to taking into account lands from the Land Fund areas. Data on other wooded lands are not available
Growing stock of commercial species	Definition has not been considered	Data on other wooded lands are not available

Other general comments to the table
Data are not complete

## 7 Table T7 – Biomass stock

### 7.1 FRA 2010 Categories and definitions

Category	Definition
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 2mm 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.

### 7.2 National data

#### 7.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Table coverage	1993	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Table coverage	1998	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Table coverage	2003	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Table coverage	2009	State Forest Fund territory

## 7.2.2 Classification and definitions

National class	Definition
	FRA-2010 terms and definitions were used when completing (filling in) the Table

## 7.2.3 Original data

FRA 2010 terms and definitions were used when completing (filling in) the Table

## 7.3 Analysis and processing of national data

### 7.3.1 Estimation and forecasting

Estimation (a)

National class	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	21.89	27.26	29.94	44.66	ND	ND	ND	ND
... of which: coniferous forests	16.08	19.80	21.66	31.66	ND	ND	ND	ND
... .. of which: broadleaved forests	5.81	7.46	8.28	13.00	ND	ND	ND	ND
Growing stock of commercial species	0	0	0	0	0	0	0	0

Estimation (b)

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 <sup>st</sup>	<i>Picea Schrenkiana</i>	Spruce	11.49	14.46	15.94
2 <sup>nd</sup>	<i>Juniperus turkestanica</i>	Juniper (var. tree)	3.17	3.64	3.87
3 <sup>rd</sup>	<i>Juglans</i>	Walnut	2.25	2.69	2.91
4 <sup>th</sup>	<i>Acer turkestanica</i>	Marple	1.06	1.18	1.25
5 <sup>th</sup>	<i>Juniperus turkestanica</i>	Juniper (var. creeping)	0.75	0.75	0.75
6 <sup>th</sup>	<i>Abies</i> spp.	Fir	0.30	0.55	0.68
7 <sup>th</sup>	<i>Populus</i> spp.	Poplar	0.19	0.50	0.65
8 <sup>th</sup>	<i>Malus</i> spp.	Apple-tree	0.33	0.42	0.47
9 <sup>th</sup>	<i>Pinus</i> spp.	Pine	0.28	0.32	0.34
10 <sup>th</sup>	<i>Betula</i> spp.	Birch	0.08	0.29	0.39
Remaining			1.99	2.46	2.69
<b>TOTAL</b>			<b>21.89</b>	<b>27.26</b>	<b>29.94</b>

### 7.3.2 Reclassification into FRA 2010 categories

#### 1) Above-ground biomass

	GS				BEF				AGB			
	Growing stock mln.m3				Biomass expansion factor tonne/m3				Above-ground biomass mln.tonne			
	1990	2000	2005	2010	1990	2000	2005	2010	1990	2000	2005	2010
Pine	0.28	0.32	0.34	0.29	1.8	1.8	1.8	1.8	0.5	0.6	0.6	0.5
Other coniferous species	15.80	19.48	21.32	31.37	1.4	1.4	1.4	1.4	22.1	27.3	29.8	43.9
Broadleaved (“hard-leaved” and “soft-leaved”) species	5.81	7.46	8.28	13.00	3.0	3.0	3.0	3.0	17.4	22.4	24.8	39.0
<b>TOTAL</b>	<b>21.89</b>	<b>27.26</b>	<b>29.94</b>	<b>44.66</b>					<b>40.1</b>	<b>50.2</b>	<b>55.2</b>	<b>83.4</b>

#### 2) Below-ground biomass

	AGB				RSR				BGB			
	Above-ground biomass mln.tonne				Relation of biomass of roots and shoots				Below-ground biomass mln.tonne			
	1990	2000	2005	2010	1990	2000	2005	2010	1990	2000	2005	2010
Coniferous species	22.6	27.9	30.4	44.4	0.40	0.40	0.40	0.40	9.04	11.16	12.16	17,7 6
Broadleaved (“hard-leaved” and “soft-leaved”) species	17.4	22.4	24.8	39.0	0.46	0.46	0.46	0.46	8.0	10.3	11.4	17.9 4
<b>TOTAL</b>	<b>40.1</b>	<b>50.2</b>	<b>55.2</b>	<b>83.4</b>					<b>17.04</b>	<b>21.46</b>	<b>23.56</b>	<b>35.7</b>

### 7.4 Data for Table T7

FRA 2010 category	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass	40.1	50.2	55.2	83.4	ND	ND	ND	ND
Below-ground biomass	17.04	21.46	23.56	35.7	ND	ND	ND	ND
Dead wood	ND	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

### 7.5 Comments to Table T7

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Above-ground biomass	Definition has not been changed	The increase was due to changing the method of the calculation
Below-ground biomass	Definition has not been changed	The increase was due to changing the method of the calculation
Dead wood	-	-

**Other general comments to the table**

The FRA-2010 terms and definitions were applied / used, when compiling the Table; Data on growing stock and standard coefficients are given in Tables 5.3-5.4. The Appendix 5 of the Guidelines for the FRA-2010 National Reporting. The applied coefficients refer to the temperate climatic zone.

## 8 Table T8 – Carbon stock

### 8.1 FRA 2010 Categories and definitions

Category	Definition
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.

### 8.2 National data

#### 8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1993, Department of Forestry Development	M	Table coverage	1993	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 1998, Department of Forestry Development	M	Table coverage	1998	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2003, State Forestry Service	M	Table coverage	2003	State Forest Fund territory
Simultaneous State Forest Fund Account of the Kyrgyz Republic for 2008 (preliminary data), Department of Forest Ecosystems Development GAOOS&LH	M	Table coverage	2009	State Forest Fund territory

#### 8.2.2 Classification and definitions

FRA-2010 terms and definitions were applied/ used when completing (filling in) the Table

### 8.3 Analysis and processing of national data

#### 8.3.1 Estimation and forecasting

1) Carbon biomass category

FRA 2010 category	Biomass, mln. tonne				Carbon share				Carbon, mln. tonne			
	1990	2000	2005	2010	1990	1990	2000	2005	2010	2000	2005	2010
Биомасса выше уровня земли	40.1	50.2	55.2	83.4	0.47	0.47	0.47	0.47	18.9	23.6	25.9	39.2
Биомасса ниже уровня земли	17.04	21.46	23.56	35.7	0.47	0.47	0.47	0.47	8.0	10.1	11.1	16.8

## 2) Carbon in litter

FRA 2010 category	Area, thousand ha				Carbon in litter	Carbon, mln. tonne			
	1990	2000	2005	2010		1990	2000	2005	2010
Forest	836.4	858.3	869.3	953.8		20.1	20.8	21.3	22.9
Coniferous	350,3	390,1	409,8	444,6	20.3	7.1	7.9	8.3	9.0
Broadleaved	311,6	405,6	452,9	405,8	28.2	8.8	11.4	12.8	11.4
Mixed	174,5	62,6	6,6	103,4	24.3	4.2	1.5	0.2	2.5

## 3) Soil carbon

FRA 2010 category	Area, th.ha				Soil carbon	Carbon, mln.tonne			
	1990	2000	2005	2010		1990	2000	2005	2010
Forest	836.4	858.3	869.3	953.8	38	31.8	32.6	33.0	36.2

## 8.4 Data for Table T8

FRA 2010 Category	Carbon (Million metric tonnes)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Carbon in above-ground biomass	18.9	23.6	25.9	39.2	ND	ND	ND	ND
Carbon in below-ground biomass	8.0	10.1	11.1	16.8	ND	ND	ND	ND
<b>Sub-total: Living biomass</b>	26.9	33.7	37.0	56.0	ND	ND	ND	ND
Carbon in dead wood	ND	ND	ND	ND	ND	ND	ND	ND
Carbon in litter	20.1	20.8	21.3	22.9	ND	ND	ND	ND
<b>Sub-total: Dead wood and litter</b>	ND	ND	ND	ND	ND	ND	ND	ND
Soil carbon	31.8	32.6	33.0	36.2	ND	ND	ND	ND
<b>TOTAL</b>	ND	ND	ND	ND	ND	ND	ND	ND

Soil depth (cm) used for soil carbon estimates	30
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### 8.5 Comments to Table T8

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Carbon in above-ground biomass	FRA-2010 terms and definitions have been applied	When calculating, the standard converting factors (coefficients) were used
Carbon in below-ground biomass	FRA-2010 terms and definitions have been applied	When calculating, the standard converting factors (coefficients) were used
Carbon in dead wood	-	-
Carbon in litter	FRA-2010 terms and definitions have been applied	When calculating, the standard converting factors (coefficients) were used
Soil carbon	FRA-2010 terms and definitions have been applied	When calculating, the standard converting factors (coefficients) were used

Other general comments to the table
The FRA-2010 terms and definitions were applied / used, when compiling the Table; Data on growing stock and standard coefficients are given in Tables 5.2, 5.9 The Appendix 5 of the Guidelines for the FRA-2010 National Reporting.

## 9 Table T9 – Forest fires

### 9.1 FRA 2010 Categories and definitions

Category	Definition
Number of fires	Average number of vegetation fires per year in the country.
Area affected by fire	Average area affected by vegetation fires per year in the country.
Vegetation fire (supplementary term)	Any vegetation fire regardless of ignition source, damage or benefit.
Wildfire	Any unplanned and/or uncontrolled vegetation fire.
Planned fire	A vegetation fire regardless of ignition source that burns according to management objectives and requires limited or no suppression action.

### 9.2 National data

#### 9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Forest Fires Registration Book	M	Table coverage	2007	State Forest Fund

#### 9.2.2. Classification and definitions

National class	Definition
Total area affected by fire	Area affected by unplanned and/or uncontrolled fire (wildfire) spreading on the territory of the State Forest Fund, including forest and non-forest lands
Occasional Forest Fires	Fire, caused by an occasional (non-planned) ignition of vegetation on the territory of the State Forest Fund

#### 9.2.3 Original data

National class	Annual average for 5-year period					
	1990		2000		2005	
	1000 hectares	number of fires	1000 hectares	number of fires	1000 hectares	number of fires
Total area affected by fire	ND	ND	0.94	11	0.4	14
... including lands covered by forest	ND	ND	0.09	ND	0.17	ND
... including other forest lands	ND	ND	0	ND	0.02	ND
... including non-forest land (SFF)	ND	ND	0.85	ND	0.21	ND

### 9.3 Analysis and processing of national data

#### 9.3.1 Estimation and forecasting

Data for the year 2000 are evaluated according to the average indicator of areas annually affected by forest fires for the period 1998-2002;

Data for the year 2005 are evaluated according to the average indicator of areas annually affected by forest fires for the period 2003-2007.

### 9.3.2 Reclassification into FRA 2010 categories

National classes correspond to (coincide with) FRA-2010 categories

### 9.4 Data for Table T9

Table 9a

FRA 2010 category	Annual average for 5-year period					
	1990		2000		2005	
	1000 hectares	number of fires	1000 hectares	number of fires	1000 hectares	number of fires
Total area affected by fire	ND	ND	0.94	11	0.4	14
... including lands covered by forest	ND	ND	0.09	ND	0.17	ND
... including other forest lands	ND	ND	0	ND	0.02	ND
... including other land areas	ND	ND	0.85	ND	0.21	ND

Table 9b

FRA 2010 category	Proportion of forest area affected by fire (%)		
	1990	2000	2005
Wildfire	100	100	100
Planned fire	0	0	0

### 9.5 Comments to Table T9

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total area affected by fire	Expert estimation	Data are evaluated according to the average indicator of areas annually affected by forest fires for the 5-year period
Number of Fires		In the national reporting on fires there are no data on number of fires by land categories
Occasional forest fires	Expert estimation	Occasional forest fires happen mainly on SFF forest lands
Planned fire	The term does not exist in the national legislation	In the Forest Management Planning there are no activities aimed on (setting) planned fires

Other general comments to the table
Data are not complete

## 10 Table T10 – Other disturbances affecting forest health and vitality

### 10.1 FRA 2010 Categories and definitions

Term	Definition
Disturbance	Damage caused by any factor (biotic or abiotic) that adversely affects the vigour and productivity of the forest and which is not a direct result of human activities.
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.
Category	Definition
Disturbance by insects	Disturbance caused by insect pests.
Disturbance by diseases	Disturbance caused by diseases attributable to pathogens, such as bacteria, fungi, phytoplasma or virus.
Disturbance by other biotic agents	Disturbance caused by biotic agents other than insects or diseases, such as wildlife browsing, grazing, physical damage by animals, etc.
Disturbance caused by abiotic factors	Disturbances caused by abiotic factors, such as air pollution, snow, storm, drought, etc.

### 10.2 National data

#### 10.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Results of the Annual Forest Pathology monitoring	M	Data from the Forest Pathology monitoring	1990, 2000, 2007	State Forest Fund

#### 10.2.2 Classification and definitions

National class	Definition
Disturbance by insects	Disturbance caused by insects/pests
Disturbance by diseases	Disturbance caused by diseases

#### 10.2.3 Original data

National class	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects	70	60	29
Disturbance by diseases	16	10	0.5
<b>Total area affected by disturbances</b>	<b>86</b>	<b>70</b>	<b>29.5</b>

### 10.3 Analysis and processing of national data

#### 10.3.1 Estimation and forecasting

Data for years 1990, 2000 are evaluated when preparing the National reporting in the FRA-2005 framework;

Data for 2005 are evaluated according to the average indicator of areas annually affected by insects and diseases during the period 2003-2007.

#### 10.3.2 Reclassification into FRA 2010 categories

National classes correspond to (coincide with) FRA-2010 categories

### 10.4 Data for Table T10

**Table 10a – Disturbances**

FRA 2010 category	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects	70	60	29
Disturbance by diseases	16	10	0.5
Disturbance by other biotic agents	ND	ND	ND
Disturbance caused by abiotic factors	ND	ND	ND
<b>Total area affected by disturbances</b>	<b>86</b>	<b>70</b>	<b>29.5</b>

**Table 10b – Major outbreaks of insects and diseases affecting forest health and vitality**

Description / name	Tree species or genera affected (scientific name)	Year(s) of latest outbreak	Area affected (1000 hectares)	If cyclic, approx. cycle (years)
<i>Limantria dispar</i> L. (Gypsy moth, непарный шелкопряд)	<i>Juglans</i>	2005	25-30	n.a.
<i>Caliroa limacina</i> Retz. (Pear Sawfly, вишневый (слизистый) пилильщик)	<i>Malus</i> spp.	2006-2008	4.0	n.a.
<i>Hyponomeuta malinellus</i> Zell. (Apple small ermine moth, яблоневая горностаевая моль)	<i>Pinus</i> spp.	2004-2005	9.0-11.0	n.a.

**Table 10c – Area of forest affected by woody invasive species**

Scientific name of woody invasive species	Forest area affected 2005 (1000 hectares)
No data/information	
<b>Total forest area affected by woody invasive species</b>	

**10.5 Comments to Table T10**

<b>Variable / category</b>	<b>Comments related to data, definitions, etc.</b>	<b>Comments on the reported trend</b>
Disturbance by insects	There are no comments	During the period from 2002 to 2007, the trend shows that the areas affected by insects had decreased due to biology, natural conditions and application of the forest protection measures
Disturbance by diseases	There are no comments	During the period from 2002 to 2007, the trend shows that the areas affected by diseases had decreased due to efficient sanitary management measures
Disturbance by other biotic agents	There are no comments	Monitoring of disturbance caused by other biotic agents was not implemented
Disturbance caused by abiotic factors	There are no comments	Monitoring of disturbance caused by abiotic factors was not implemented

**Other general comments to the table**

Data/information is not complete.

Besides the above noted disturbances, it is necessary to emphasize disturbances caused by illegal logging, and to indicate show the areas affected by this type of “disturbance”.

## 11 Table T11 – Wood removals and value of removals

### 11.1 FRA 2010 Categories and definitions

Category	Definition
Industrial roundwood removals	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removals	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

### 11.2 National data

#### 11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Summary Report of the Republic Institution	M	Table coverage	2003-2007	State Forest Fund territory

#### 11.2.2 Classification and definitions

National class	Definition
Industrial roundwood removals	The wood removal for production of goods and services
Woodfuel removals	The wood removal for fuel production purposes

#### 11.2.3 Original data

National class	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m <sup>3</sup> o.b.)	6.7	12.7	8.6	NDA	32.3	16.1
... of which: from forests	6.7	12.7	8.6	NDA	32.3	16.1
Value of the production unit (som/m <sup>3</sup> o.b.)	NDA	1500	1600	NDA	200	240
Total value (in 1000 som)	NDA	19050.0	13760.0	NDA	6460.0	3864.0

### 11.3 Analysis and processing of national data

#### 11.3.1 Estimation and forecasting

Data for the years 1990 and 2000 were evaluated when preparing the National Report in the FRA-2005 framework;

Data for 2005 year were evaluated according to the average indicator of the annual volume of industrial and woodfuel removals, and of their annual value (by the production unit) during the period 2003-2007.

### 1.3.2 Reclassification into FRA 2010 categories

National classes correspond to (coincide with) FRA-2010 categories

### 11.4 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m <sup>3</sup> o.b.)	6.7	12.7	8.6	ND	32.3	16.1
... of which: from forests	6.7	12.7	8.6	ND	32.3	16.1
Unit value (local currency/m <sup>3</sup> o.b.)	ND	1500	1600	ND	200	240
Total value (in 1000 units of local currency)	ND	19050.0	13760.0	ND	6460.0	3864.0

	1990	2000	2005
Local currency title	USSR rouble	Kyrgyz som	Kyrgyz som

### 11.5 Comments to Table T11 Kyrgyz

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of the industrial roundwood removals	FRA-2010 terms and definitions were used/ applied when compiling (filling in) the Table.	Trend shows that the volume of industrial roundwood removals decreased due to the forest legislation, forbidding industrial roundwood logging in the process of the main cutting
Total volume of woodfuel removals	FRA-2010 terms and definitions were used/ applied when compiling (filling in) the Table.	Trend shows that the volume of woodfuel removals decreased due to the forest legislation, forbidding woodfuel logging in the process of the main cutting
Value of the production unit	FRA-2010 terms and definitions were used/ applied when compiling (filling in) the Table.	Value of the production unit of industrial roundwood has increased by 100 soms, woodfuel – by 40 soms.
Total value	FRA-2010 terms and definitions were used/ applied when compiling (filling in) the Table.	-

#### Other general comments to the table

There are no comments

## **12 Table T12 – Non-wood forest products removals and value of removals**

No data to report on this table.

## 13 Table T13 – Employment

### 13.1 FRA 2010 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment	Includes all persons in paid employment or self-employment.
Paid employment	Persons who during a specified reference period performed some work for <u>wage or salary</u> in cash or in kind.
Self-employment	Persons who during a specified reference period performed some work for <u>profit or family gain</u> in cash or in kind (e.g. employers, own-account workers, members of producers' cooperatives, contributing family workers).

### 13.2 National data

#### 13.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Statistical yearbook	H	Table coverage	2000, 2005	Country's territory
UNECE publication "Employment Trends and Prospects in the European Forest Sector" page 24 (available at: <a href="http://www.unece.org/timber/docs/dp/dp-29.pdf">http://www.unece.org/timber/docs/dp/dp-29.pdf</a> )	M		1990	

#### 13.2.2 Classification and definitions

FRA-2010 terms and definitions were used/ applied when compiling (filling in) the Table

#### 13.2.3 Original data

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in the raw material production	2.9	4.2	3.1
... including all persons in paid employment	ND	ND	ND
... including all persons in self-employment	ND	ND	ND
Employment in the management of protected territories/ areas	ND	ND	0,33

**13.3 Data for Table T13**

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in the raw material production	2.9	4.2	3.1
... including all persons in paid employment	ND	ND	ND
... including all persons in self-employment	ND	ND	ND
Employment in the management of protected territories/ areas	ND	0.4	0.33

**13.4 Comments to Table T13**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Employment in the raw material production	FRA definition has been applied	Staff/ personnel implementing economic and executive / administrative functions is included
paid employment/ self-employment	FRA definition has been applied	No data available (NDA)
Employment in the management of protected territories/ areas	FRA definition has been applied	Staff/ personnel implementing administrative and management functions is included

**Other general comments to the table**

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## 14 Table T14 – Policy and legal framework

### 14.1 FRA 2010 Categories and definitions

Term	Definition
Forest policy	A set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest and tree resources for the benefit of society.
Forest policy statement	A document that describes the objectives, priorities and means for implementation of the forest policy.
National forest programme (nfp)	A generic expression that refers to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels. The national forest programme provides a framework and guidance for country-driven forest sector development with participation of all stakeholders and in consistence with policies of other sectors and international policies.
Law (Act or Code) on forest	A set of rules enacted by the legislative authority of a country regulating the access, management, conservation and use of forest resources.

### 14.2 Data for Table T14

Show the availability of the following documents (2008)			
<b>Statement on the Forest Policy objectives with the national-wide coverage</b>	Yes	Yes	
		No	
If available, please indicate:	Year of adoption <sup>1/</sup>	2004	
	Reference to the document	The Government's decision/ resolution № 256 of 14 April 2004 « <i>Approval of the Concept of the Development of the Forest Sector of the Kyrgyz Republic</i> »	
<b>National Forest Programme (NFP)</b>	Yes	Yes	
		No	
If available, please indicate:	Title of the NFP in the country	National Forest Programme for 2005-2015	
	The year of starting the implementation	2005	
	Current status		In the process of elaboration
		Yes	In the process of implementation
			In the process of reviewing
Reference to the document and/or web-site	The Government's decision/ resolution № 858 of 25 September 2004 r. № 858 « <i>Approval of the National Forest Programme for 2005-2015</i> »		
<b>Law (Act or Code) on Forests with the national-wide coverage</b>	Yes	Yes, there exist the special forest legislation	
		Yes, but forest clauses/ provisions are included into another (of a more wide coverage) legislation	
		No, forestry issues are not regulated by national legislation	

If available, please indicate:	The year of adoption and making operational <sup>2/</sup>	1999
	The year of the latest amendments/ corrections	2007
	Reference to the document and/or web-site	The Government's decision/ resolution "Yhogorku Kenesha" of 2 July 2007 № 94 «Adoption of the Law of the Kyrgyz Republic "Introduction of Changes and Amendments into the Forest Code of the Kyrgyz Republic". <a href="http://www.toktom.kg">http://www.toktom.kg</a>

<b>If the responsibility for the elaboration of Forest Policy and /or Forest Legislation is being decentralized, please indicate if there are the following documents, and explain in the following after the Table comments, how the system of sharing the responsibility for the elaboration Forest Policy and /or Forest Legislation is organized in your country.</b>		
<b>Sub-national Statement on the Forest Policy objectives</b>		Yes
	No	No
If "Yes", please indicate the number of regions / states / provinces, where Statements on the Forest Policy objectives are available		
<b>Sub-national Laws (Acts or Codes) on Forests</b>		Yes
	No	No
If "Yes", please indicate the number of regions / states / provinces, where Laws (Acts or Codes) on Forests are available		

### 14.3 Comments to Table T14

Variable / category	Comments related to data, definitions, etc.
<b>Statement on the Forest Policy objectives with the national-wide coverage</b>	FRA-2010 definitions are in line with the national notions / definitions. The following components constitute the Forest Policy of the Kyrgyz Republic: <ul style="list-style-type: none"> <li>– <i>Concept of the Development of the Forest Sector of the Kyrgyz Republic</i> – long-term document, defining the State Strategy with regard to the Forest Sector development;</li> <li>– <i>Forest Code and the Nature Protection legislation</i>, defining the legal frameworks of the Forest Policy;</li> <li>– <i>National Forest Programme (NFP)</i> – mid-term document, defining the set of measures and activities aimed at the realization of the Concept;</li> <li>– <i>National Action Plan</i> – short-term document, foreseeing the concrete measures aimed at the implementation of the <i>National Forest Programme</i>.</li> </ul>
<b>National Forest Programme (NFP)</b>	FRA-2010 definitions are in line with the national notions / definitions
<b>Law (Act or Code) on Forests with the national-wide coverage</b>	FRA-2010 definitions are in line with the national notions / definitions. Currently, a new redaction/ version of the Forest Code is being elaborated.

**Other general comments to the table**

The responsibility for the Forest Sector management, according to the Forest Code of the Kyrgyz Republic, is with the State (Republic-wide) institution / body of the Forestry Management.

The elaboration of the National Forest Policy and Forest Legislation involves all the stake-holders (interested parties), on the basis “from the bottom to the top”.

## 15 Table T15 – Institutional framework

### 15.1 FRA 2010 Categories and definitions

Term	Definition
Minister responsible for forest policy-making	Minister holding the main responsibility for forest issues and the formulation of the forest policy.
Head of Forestry	The Head of Forestry is the Government Officer responsible for implementing the mandate of the public administration related to forests.
Level of subordination	Number of administrative levels between the Head of Forestry and the Minister.
University degree	Qualification provided by University after a minimum of 3 years of post secondary education.

### 15.2 Data for Table T15

**Table 15a – Institutions**

FRA 2010 Category	2008
Minister responsible for forest policy-making: please, indicate the complete title of the position/post	Director of the State Agency of the Environment Protection and Forestry under the Government of the Kyrgyz Republic
Level of subordination of the Head of Forestry in the Ministry framework	1-st level the Minister subordination
	2 2-nd level of the Minister subordination
	3-rd level of the Minister subordination
	4-th (or lower) level of the Minister subordination
Other state forestry bodies / institutions at the national level	Department of the Forest Ecosystems' Development, as well as the Territorial Administration of the Forestry and Hunting Management Planning.
Institution(s) / body(ies) responsible for the forest law supervision and enforcement	According to the Constitution of the Kyrgyz Republic, the monitoring / supervision of an accurate and uniform fulfilment /execution of the Forest Law is being implemented by the Procurator-General (Attorney General) of the Kyrgyz Republic and by the Procurators, who are subordinated to the Procurator-General  The Office / Administration of the State Control of the State Agency of the Environment Protection and Forestry

**Table 15b – Human resources**

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total number of personnel	ND	ND	ND	ND	1877	12
... including the staff with the University Certificate/ diploma, or its equivalent	ND	ND	ND	ND	418	10

**15.3 Comments to Table T15**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Minister responsible for forest policy-making		
Level of subordination of the Head of Forestry in the Ministry framework		
Other state forestry bodies / institutions at the national level	<p>Department is the structural sub-division of the State Agency of the Environment Protection and Forestry (Independent juridical office / person)</p> <p>Territorial Administration of Forestry is the structural sub-division subordinated to the Department of the Forest Ecosystems</p> <p>Administration of the Forestry and Hunting Management Planning is the state non/commercial organisation established by the State Agency of the Environment Protection and Forestry for the implementation of special Forestry and Hunting Management activities.</p>	
Institution(s) / body(ies) responsible for the Forest Legislation supervision and enforcement		
Human resources in the State Institution(s) / body(ies) of the forestry sector	<p><u>Includes</u> the human resources of the State Institution(s) / body(ies) in the forestry sector at the sub-national level. The Table does not consider human resources of the forestry institutions at the national (Republic) level.</p>	

**Other general comments to the table**

FRA definition has been applied

## 16 Table T16 – Education and research

### 16.1 FRA 2010 Categories and definitions

Term	Definition
Forest-related education	Post-secondary education programme with focus on forests and related subjects.
Doctor's degree (PhD)	University (or equivalent) education with a total duration of about 8 years.
Master's degree (MSc) or equivalent	University (or equivalent) education with a total duration of about five years.
Bachelor's degree (BSc) or equivalent	University (or equivalent) education with a duration of about three years.
Technician certificate or diploma	Qualification issued from a technical education institution consisting of 1 to 3 years post secondary education.
Publicly funded forest research centers	Research centers primarily implementing research programmes on forest matters. Funding is mainly public or channelled through public institutions.

### 16.2 National data

#### 16.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Environment protection in the Kyrgyz Republic, Statistical publication	H	Table coverage	2008	Country's territory
Information about specialists of the Forest Institute of the National Science Academy of the Kyrgyz Republic	H	Table coverage	2009	

#### 16.2.2 Classification and definitions

FRA-2010 terms and definitions were applied when completing (filling in) the Table.

#### 16.2.3 Original data

National class	Graduation <sup>1/</sup> of students in forest-related education					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Master's degree (MSc) or equivalent	79	ND	111	ND	90	ND
Bachelor's degree (BSc) or equivalent	ND	ND	ND	ND	ND	ND
Technician certificate or diploma	0	ND	62	ND	ND	ND
FRA 2010 Category	Professionals working in publicly funded forest research centres <sup>2/</sup>					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Doctor's degree (PhD)	10	30	9	33	6	50
Master's degree (MSc) or equivalent	23	48	22	41	20	45
Bachelor's degree (BSc) or equivalent	4	50	4	50	4	50

### 16.3 Analysis and processing of national data

#### 16.3.1 Estimation and forecasting

#### 16.4 Data for Table T16

FRA 2010 Category	Graduation <sup>1/</sup> of students in forest-related education					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Master's degree (MSc) or equivalent	79	ND	111	ND	90	ND
Bachelor's degree (BSc) or equivalent	ND	ND	NDA	ND	ND	ND
Technician certificate or diploma	0	ND	62	ND	95	ND
FRA 2010 Category	Professionals working in publicly funded forest research centres <sup>2/</sup>					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Doctor's degree (PhD)	10	30	9	33	6	50
Master's degree (MSc) or equivalent	23	48	22	41	20	45
Bachelor's degree (BSc) or equivalent	4	50	4	50	4	50

#### 16.5 Comments to Table T16

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Students' graduation from educational institutions covering the forestry-related programmes/ issues	FRA-2010 definition has been applied	The professional education is being implemented on basis of institutions of the primary (graduation from Lyceum) and medium (graduation from College) education. There are no data / information by gender.
Professionals, working in the scientific and research institutions, which are financed from the State Budget	FRA-2010 definition has been applied	Data of the Forest Institute of the National Science Academy of the Kyrgyz Republic are used in this Table.

#### Other general comments to the table

The Kyrgyz Republic until 1996 had neither high- (Universities) nor medium- (Technical) level educational institutions training the forestry staff / personnel. The education and training of the forestry staff / personnel was implemented in some other Republics of the Soviet Union.

Currently, the education / training of the high-level forestry specialists are being implemented on the basis of the Agronomic Faculty of the Kyrgyz Agriculture University. The training of the medium-level (technical) forestry specialists is being provided by professional Lyceums of Kyrgyzstan.

## 17 Table T17 – Public revenue collection and expenditure

### 17.1 FRA 2010 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, forest products include: roundwood; sawnwood; wood-based panels; pulp and paper; and non-wood forest products. As far as possible, this should include revenue collected by all levels of government (i.e. central, regional/provincial and municipal level), but it should exclude the income of publicly owned business entities.
Public expenditure	All government expenditure on forest related activities (further defined below).
Operational expenditure (sub-category to Public expenditure)	All government expenditure on public institutions solely engaged in the forest sector. Where the forest administration is part of a larger public agency (e.g. department or ministry), this should only include the forest sector component of the agency's total expenditure. As far as possible, this should also include other institutions (e.g. in research, training and marketing) solely engaged in the forest sector, but it should exclude the expenditure of publicly owned business entities.
Transfer payments (sub-category to Public expenditure)	All government expenditure on direct financial incentives paid to non-government and private-sector institutions, enterprises communities or individuals operating in the forest sector to implement forest related activities.
Domestic funding	Public expenditure funded from domestic public financial resources, including: retained forest revenue; forest-related funds; and allocations from the national budget (i.e. from non-forest sector public revenue sources).
External funding	Public expenditure funded from grants and loans from donors, non-governmental organisations, international lending agencies and international organisations, where such funds are channelled through national public institutions.

### 17.2 National data

#### 17.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
Financial report	H	Data required for this table	2000, 2005	Revenues and expenditures related to forestry

#### 17.2.2 Classification and definitions

FRA-2010 terms and definitions were applied when completing (filling in) the Table.

### 17.3 Data for Table T17

Table 17a - Forest revenues

FRA 2010 Categories	Revenues (1000 local currency)	
	2000	2005
Forest revenue	31,373.0	41,226.4

**Table 17b - Public expenditure in forest sector by funding source**

FRA 2010 Categories	Domestic funding (1000 local currency)		External funding (1000 local currency)		Total (1000 local currency)	
	2000	2005	2000	2005	2000	2005
Operational expenditures	10203.0	21306.5	ND	ND	10203.0	21306.5
Transfer payments	ND	ND	ND	ND	ND	ND
<b>Total public expenditures</b>	ND	ND	ND	ND	ND	ND
If transfer payments are made for forest management and conservation, indicate for what specific objective(s) - Please tick all that apply.	<input type="checkbox"/>	Reforestation				
	<input type="checkbox"/>	Afforestation				
	<input type="checkbox"/>	Forest inventory and/or planning				
	<input type="checkbox"/>	Conservation of forest biodiversity				
	<input type="checkbox"/>	Protection of soil and water				
	<input type="checkbox"/>	Forest stand improvement				
	<input type="checkbox"/>	Establishment or maintenance of protected areas				
	<input type="checkbox"/>	Other, specify below				

**17.4 Comments to Table T17**

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue	FRA definition was applied	-
Operational expenditure	FRA definition was applied	-
Transfer payments	FRA definition was applied	-

**Other general comments to the table**

The available data are not complete. There are no accurate data on external funding; that is why these data are not included in this table.