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GENEVA TIMBER AND FOREST DISCUSSION PAPER 45

**FOREST AND FOREST PRODUCTS
COUNTRY PROFILE
UZBEKISTAN**



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United Nations Economic Commission for Europe/
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Timber Section, Geneva Switzerland

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COUNTRY PROFILE

UZBEKISTAN

Prepared by

Dr. Gulusa Vildanova



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Note

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Abstract

Forest and Forest Products Country Profile of Uzbekistan, prepared by a national expert, contains information about the forest resources of the country and a description of the status, trends and developments taking place in the forest and forest products sector as a whole. It focuses on forestry activities over the past decade, i.e. 1995-2005, with a brief reference to the historical and geographical background. For the forest sector, as for other branches of the Uzbek economy, this period was heavily influenced by the reforms resulting from the change from a centrally planned to a market economy and, additionally, by efforts to achieve sustainable forest management. The profile contains statistical data – tables, diagrams, graphs and a brief analysis of the evolution of the forest sector and data for the principal categories and volumes of goods and services in the sector. Chapters include forest resources, wood processing industry, trade, prices, institutions, and conclude with an outlook for the forest sector. Most data are from the government statistical service of Uzbekistan, though data from research bodies and statistics from non-governmental organizations have also been used.

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PREFACE

The UNECE Timber Committee and FAO European Forestry Commission work in close cooperation to promote sustainable forest management. From a global perspective, the forests of Central Asia are not perhaps significant in terms of their extent or their production of wood, and rarely find themselves in the mainstream of the global forest policy debate. Nonetheless, forests play an essential role in protecting the fragile environments of the region. This profile provides information about the forest resources and forest products sector against the background of the country's current economic and social situation.

In common with most countries in Eastern Europe, the Caucasus and Central Asia, the forest and forest products sector in Uzbekistan has undergone considerable transformation during the last 10-15 years of change. The forest ecosystems of Uzbekistan are extremely fragile and sensitive to human intervention. Problems such as the declining productivity of irrigated land and prevention of the degradation of the environment are major challenges for the country, and it is difficult to overstate the role of forestry in these areas. Uzbekistan, and especially its rural population, depends on the wood and water supplied by the forest.

The transition to a market economy highlighted the need for urgent reforms to encourage forest management that would be sound not only economically, but also ecologically and socially. In support of this, Uzbekistan has developed a new forest policy that guarantees the forests' ecological, protective, and social functions and at the same time provides the country with responsibly produced wood to improve the economy.

The country profile was prepared by Dr. Gulusa Vildanova of the Main Forestry Department of the Ministry of Agriculture and Water Resources of Uzbekistan. On behalf of the UNECE, I would like to express our gratitude to the author for her excellent work.

I hope that this country profile will contribute to improving international understanding of the forest and forest products sectors of the countries of Central Asia, its vulnerability and its potential to contribute to the development of the region.



Marek Belka
Executive Secretary
United Nations Economic Commission for Europe

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Together they have compiled a clear picture of the Uzbekistan forest and forest products sector.

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The author welcomes comments on this paper: gvild@sarkor.uz

SYMBOLS AND ABBREVIATIONS USED

\$	US dollar
CIS	Commonwealth of Independent States
EECCA	Eastern Europe, Caucasus and Central Asia
FAO	United Nations Food and Agricultural Organization
FDI	Foreign Direct Investment
FOWECA	Forest Outlook Study for Western and Central Asia
FRA	Forest Resources Assessment
GDP	Gross Domestic Product
GNP	Gross National Product
GTZ	German Center on Technical Assistance
ha	Hectare
IMF	International Monetary Fund
Kg 90 per cent	Kilograms at 10 per cent moisture content
m ²	Square meter
m ³	Cubic meter
DHRNP	Department of Hunting, Reserves and National Parks
MFD	Main Forestry Department
MHSSE	Ministry of Higher and Secondary Specialized Education
NGO	Non-governmental Organization
RSPCDHF	Republican Scientific Production Center on Decorative Horticulture and Forestry
SBCS	State Biological Control Service
SCNP	State Committee for Nature Protection
SFF	State Forest Fund
TACIS	Technical Assistance for Commonwealth of Independent States
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
UZS	Uzbek Sum (the national currency)
VAT	Value-added Tax

1. INTRODUCTION

This Country Profile provides statistical data and other information on the forest and forest products sector of the Republic of Uzbekistan. It starts with a brief description of the history and current socio-economic situation of the country, including statistics on the economy and agriculture. Factors influencing the forestry sector development are discussed and the institutional structure is described. The data shown in the paper are primarily from the Main Forestry Department of the Republic of Uzbekistan, State Committee on Statistics, the World Bank, United Nations Development Program projects, United States Agency for International Development, Asian Development Bank and other organizations and funding institutions.

2. BRIEF HISTORICAL SKETCH

Uzbekistan is landlocked in the heart of central Asia between the Amu Darya and Syr Darya rivers. The major part of Uzbekistan lies within the Turan lowland, and the Tien Shan and Gissaro-Alay foothills stretching outward from the northeast and south. Intermountain valleys – Fergana, Zarafshan and Chirchik-Angren – lie between these foothills inside the borders of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Afghanistan (Figure 1).

Figure 1

Map of Uzbekistan



The cultures found in the territory of Uzbekistan have very rich histories. In the pre-Islamic period, Zoroastrianism came to the territory of the present Uzbekistan (in Khorezm) and became the common property of all mankind.

In the 8th century the armies of an Arab caliph invaded Mawarannahr (translated as "The Land Beyond the River"), and brought a new religion that had risen in Saudi Arabia, called Islam. At the same time, there was fire-worship and other religions such as Buddhism, Judaism and Christianity. Since then Islam has become the dominant religion in Uzbekistan and an important part of its culture.

Mawarannahr was one of the most advanced caliphates and played a significant role in social and cultural life. The Great Silk Road linked the West with the Orient and people from southern and northern countries passed through this land (Figure 2). The Mawarannahr towns of Bukhara, Samarkand and Kunya-Urgench were the crossroads of caravan routes from India, China, Egypt, Byzantium, the Slavic countries and Arabia.

Figure 2

Great Silk Road



By the end of the 9th century, the first Samanid Government, with Bukhara as its capital, was established. This Government lasted until the end of the 10th century. At the turn of the 16th century, the region lost its strategic economic importance. Central Asia found itself isolated from developments in the outside world for almost three centuries. Colonial annexation of Central Asia by Tsarist Russia in 1860 bound Turkestan to Russia for 130 years.

The foreign economic and international contacts of the region were monopolized first by St. Petersburg and then, under the Soviet Union, by Moscow. Between the 1890s and 1917, Turkestan was governed by the Ministry of War, which also played the role of the ministry of colonies.

After the fall of the tsar, Turkestan had an opportunity for rebirth. Diplomatic missions of many countries, including the United States of America, were represented in Tashkent in 1918-1919. But in 1924, Turkestan was artificially divided into four Soviet national republics: Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

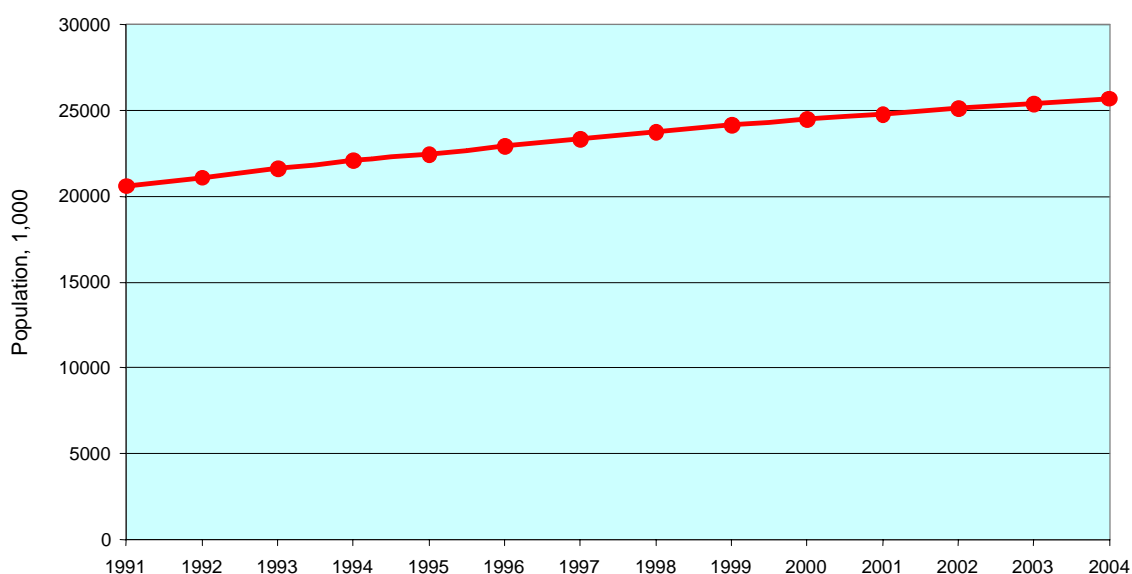
Acceptance of the first five-year plan in 1928 was the beginning of a divergence from the traditional economic ways and culture of Uzbekistan. Collectivization, including land and water reforms, preceded this and was widely implemented by the end of 1929. By the spring of 1932, three quarters of land holdings in Uzbekistan were socialized into collective farms (*kolkhozy*).

In June 1989, the internal policies of Uzbekistan were in crisis and on 31 August 1991, the Parliament adopted the Declaration of the State Independence of the Republic of Uzbekistan. On 29 December 1991, this decision was supported by referendum.

Uzbekistan is the third largest of the Eastern European, Caucasus and Central Asian (EECCA) countries in population and the fourth largest in size. It is also the republic with the highest population in Central Asia, 25.7 million people, 37 per cent of which is urban and 63 per cent rural. The annual rate of population growth has decreased from 1.65 per cent at the beginning of the 1990s to 1.01 per cent in 2004 (Figure 3).

Figure 3

Population growth in Uzbekistan, 1991-2004

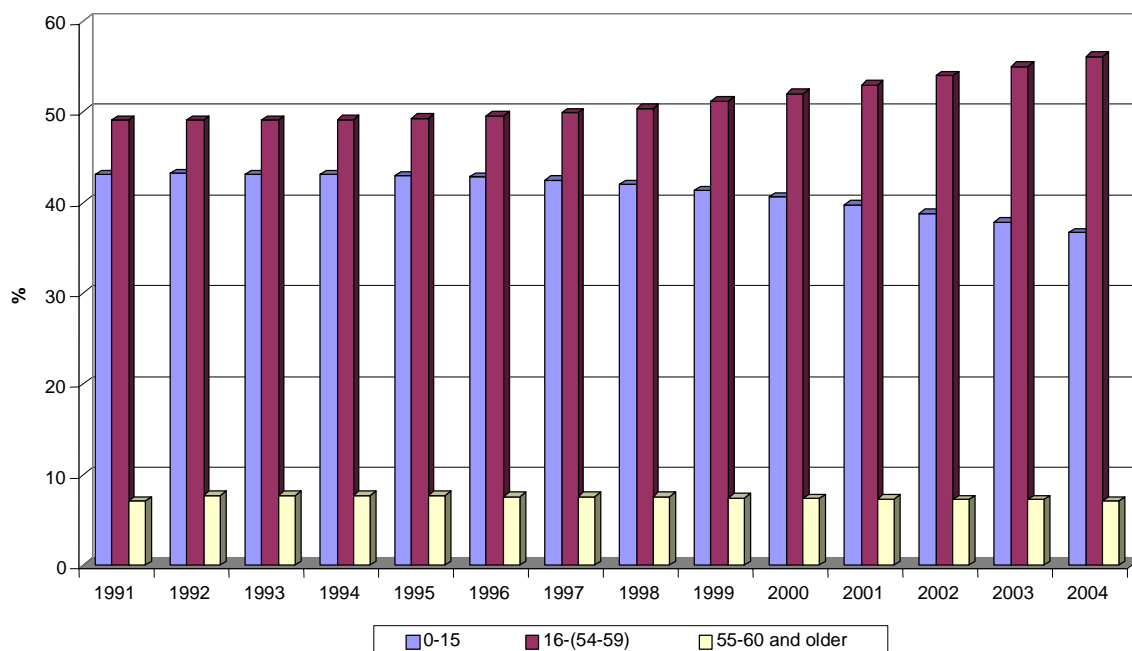


Source: The State Committee on Statistics of the Republic of Uzbekistan

Uzbekistan is a multinational country with more than 100 nations and nationalities. The largest group is the Uzbeks, who account for almost 80 per cent. The Russians are less than 5.5 per cent, other ethnic groups are represented as follows: Tadjiks (5%), Kazakhs (3.0%), Karakalpaks (2.5%), Tatars (1.5%) and Kyrgyz (1.0%). Almost all Uzbeks and other Central Asian peoples are Muslims. The Russian and other Slavic groups in the population belong to the Orthodox Church.

Uzbekistan has a strong labour potential. The country is characterized by rather young and capable people, most of which are working in the agriculture sector. Young people below working age represent 39 per cent of the population, people of working age 54 per cent, and older, retired or semi-retired, people 7 per cent of the population (Figure 4).

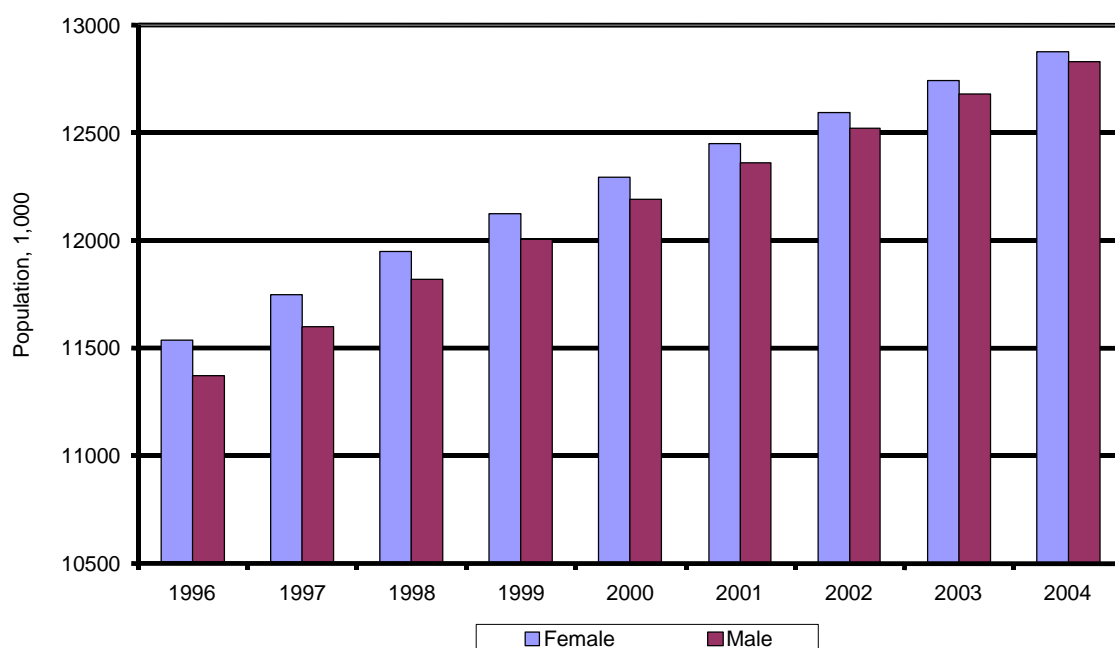
Figure 4
Population demographics of Uzbekistan, 1991-2004



Source: The State Committee on Statistics of the Republic of Uzbekistan

In 2004, the birth rate and death rate in Uzbekistan were 26.12 and 7.95 per 1,000 people, accordingly. The infant mortality rate for 1,000 births is about 71.3 per 1,000 births, and in remote areas, e.g. close to the Aral Sea, the mortality rate reaches 110 per 1,000. The ratio between female and male population is 1:1.003 (Figure 5).

Figure 5
Population of Uzbekistan by gender, 1996-2004



Source: The State Committee on Statistics of the Republic of Uzbekistan

The Soviet period of Uzbekistan's history was characterized by industrialization and immigration from other regions of the Soviet Union. In the 1970s this trend waned, and by the beginning of the 1980s was marked by emigration of the population. This process accelerated after the first ethnic conflicts in the spring of 1989 and the independence of Uzbekistan in 1991. Amongst the emigrants were many highly skilled workers, which had a negative effect on the economy.

The capital and largest city of Uzbekistan is Tashkent with a population of more than 3 million people. The Fergana valley and Tashkent region are the most densely populated.

Internal migration reflects the redistribution of labour inside the country. The migration flow is directed mainly to places with more favourable living conditions. According to statistical data, beginning from 1990, internal migration has flowed from the regions of ecological disaster to the central regions. The worst living conditions are reported to be in Karakalpakstan, Navoi and Khorezm regions. Moreover, some population flow from the countryside to cities is occurring.

3. GENERAL ECONOMIC SITUATION

The economy of Uzbekistan was one of the most specialized in the Soviet Union and was based heavily on cultivation of cotton. According to statistical data for the 1980s, cotton-farming and processing provided more than 65 per cent of gross domestic product and employed 40 per cent of the workforce. During this period, the annual harvest of cotton was about 4.5 million tons. The area utilized for cotton growing reached almost 3.5 million ha in 1986. After independence, the Government of the country decided to reduce cotton cultivation and to increase other agricultural crops, but Uzbekistan is still the third largest exporter of cotton in the world. Currently, agriculture is one of the main economic activities in Uzbekistan. Its share in the GDP is 38 per cent for 2004 and more than 60 per cent of the workforce is employed in this area. Besides cotton, agriculture in Uzbekistan focuses on production of vegetables, fruit, grain and cattle.

Uzbekistan is dependent on its water resources. During the Soviet period, many large hydraulic engineering projects (such as Chirchik-Bozsu Cascade, Farkhad and Charvak Hydroelectric Power Station, Big Fergana and Golodnostepskiy channels) were implemented and existing irrigation canals were extended.

A recent United Nations Development Programme (UNDP) analysis found three major problems related to the water supply: a lack of adequate water resources; increased mineralization/salinization of water and agricultural lands; and pollution in drinking water.

A major reason for these problems is the ineffective and irrational use of limited water resources related to irrigation. Of all central Asian countries, Uzbekistan is the most dependent on irrigated agriculture, therefore problems such as decreasing productivity of irrigated lands, and degradation of the environment are significant issues for the country.

Another major threat to the productivity of irrigated agriculture and the environment is the increasing salinity of lands and mineralization of water. According to a recent estimate by the World Bank, annual losses related to salinity in Central Asia are approximately \$2 billion (about 5% of the GDP of the countries of Central Asia) and have been increasing. In Uzbekistan from 1990 to 2000 the share of saline lands increased from 48.2 per cent to 64.4 per cent of the total area of irrigated land (about 3.5 million ha). Accordingly, the productivity of agricultural crops has decreased by 20-30 per cent during this period. Given that the share of agriculture in the GDP is about 30 per cent, the decreased productivity of important agricultural crops is highly significant.

Uzbekistan has natural gas, coal, gold, copper, tungsten, bismuth and oil. The basic power resource of the country is natural gas (concentrated mainly in the Gazli and Karshi regions). Oil is extracted in the Fergana valley and in the Bukhara region. In 1992, one of the largest oil fields in the world was opened in the western part of the Fergana valley. Coal is mined near Tashkent and Denau and in the Fergana valley.

The oil and gas sector remains exclusively owned by the State, but foreign investment in the mining industry is welcomed, especially in gold mining, which requires the use of new technologies.

During the Second World War, more than 100 industrial enterprises from the European part of the former USSR were evacuated to Uzbekistan. Nevertheless, most industrial potential remains connected with agriculture and cotton processing. Other important branches of the economy are metallurgy, chemicals, food-processing and the production of building materials. Foreign investments and technical assistance in the motor industry (Andijan), electronics (Samarkand) and clothing manufacture (Tashkent) give hope for further industrial development of Uzbekistan.

Uzbekistan is cautiously carrying out privatization and other economic reforms, as the Government is trying to avoid social and political instability. In 1994, auction sales of some service enterprises began. In agriculture privatization is proceeding more slowly than in trade and services. It is currently planned to leave strategic branches of the economy such as heavy industry, export agriculture, mining, and the petroleum industry under government ownership. Nevertheless, in 1998 almost 30 per cent of the GNP of Uzbekistan was created by the private sector.

The Government has adopted a gradual transition strategy, with an emphasis on self-sufficiency in energy, grains and reducing imported industrial goods. This strategy helped the country to avoid the dramatic collapse in output that affected other EECCA countries, and Uzbekistan achieved self-sufficiency in energy by 1995 and in grains by 1998. According to official data, GDP grew at an average annual rate of about 4 per cent between 1996 and 2003.

Exports of goods contracted by 32 per cent from 1997 to 2001, and by another 14 per cent in 2002, but then grew by 27 per cent in 2003, mainly due to higher prices for export – gold, cotton, natural gas and machinery. As a result, the current account surplus in 2003 is estimated at 8.9 per cent of GDP. Annual inflation in 2003 (although decreasing) remained significantly high, at 3.8 per cent as measured by the consumer price index (end period). Inflation is about 24 per cent as measured by the GDP deflator and 31 per cent by producer price index.

Tight fiscal and monetary policies, continued low confidence in the banking system, and restrictions on access to cash, resulted in a steady decline in the monetization of the economy from 12.4 to 10.4 per cent of GDP in the period 2001-2003.

Several new manufacturing industries ceased operation and some are now operating well below capacity. Cotton yields have fallen by about 20 per cent since the early 1990s, leading to a decline in the volume of cotton exports.

Foreign direct investment (FDI) has also declined steadily since 1997 to about \$70 million in 2003 and net FDI inflow per capita is now the lowest among the EECCA countries. GDP per capita, at purchasing power parity, was \$2,360 in 2000 (the third lowest in the EECCA).

Recently, the Government has begun to address some policy deficiencies. Since 2000, it has liberalized access to foreign exchange, narrowing the gap between the official and parallel exchange rates. Additionally, in October 2003 the Government introduced convertibility of the national currency for current operations and accepted obligations under article VIII of the International Monetary Fund (IMF) Articles of Agreement. Fiscal policy was tightened further in 2003 and the consolidated state budget recorded a small surplus compared to a deficit of 1.7 per cent of GDP in 2002. A new development in 2003 was the emergence of wage and pension arrears. Since 2002, the Government followed zero net external borrowing policies and external public and publicly guaranteed debt stock has been fairly stable.

4. FOREST RESOURCES

In the past, forests covered large areas in the valleys and the mountains. Forests were widely used by the local population for various purposes, and the absence of any form of forest management resulted in ruthless destruction of the forest ecosystem.

Some endemic species of the region, *Juniperus spp.*, *Juglans regia*, etc., were especially affected and their area severely decreased. Local people used *archa* (the local name of junipers) for making charcoal. Even now, remnants of charcoal stone furnaces can be found high in the mountains. Carelessness frequently resulted in forest fires, which reduced the juniper forest area. Overgrazing on the mountain slopes caused irreparable damage to natural renewal of the forest. (Overgrazing is one of the primary obstacles to natural forest restoration.)

Destruction of forests in pre-revolutionary Turkestan reached such a scale that in 1897 the “Regulations on Forest Protection” were issued. It was the first legislative document related to forestry in Turkestan, which framed the basic regulations for forest management and established a forest land-use register. In the period 1889-1894, a team of foresters studied forest conditions in Turkestan, including mountain forests, and the report was submitted to the First Turkestan Congress of Foresters held in 1899. It included information about the forest inventory and proposals for improvement of the state of the forest.

The “Law on Nationalization of Lands and Forests” was adopted in 1918. In compliance with this law, all forests in the Turkestan Republic became part of the State Forest Fund (SFF). The forestry sector was reorganized, and its main activity became forest protection and restoration.

The primary role of the forests in Uzbekistan is to protect agricultural lands, populated areas and the soil of surrounding territories from water and wind erosion, to prevent mudflows, and to stabilize the sands of desertified areas. Forests in Uzbekistan are a source of some low quality timber, as well as the source of such non-wood products as nuts, fruits, medicinal plants and fodder.

In Uzbekistan the area under forests has declined considerably since the beginning of the 20th century. The total area held by the SFF is currently 8.7 million ha, 4.75 million ha of which are forested lands, including 3.3 million ha covered by forest (Table 1). Other parts of the SFF comprised of wetlands, sands, pastures, gardens and vineyards, arable land, etc.

Table 1
Forested land in Uzbekistan, 1990-2005

FRA 2005 Categories	Area (1,000 ha)		
	1990	2000	2005
Forest	1895.3	3210.9	3314.8
Other wooded land	1306.1	1594.7	731.4
Other land	38222.6	36618.4	37377.8
...of which with tree cover *	380.2	361.4	344.8
Inland water bodies**	3316.0	3316.0	3316.0
TOTAL	44740.0	44740.0	44740.0

*Area of "Other land with tree cover" is included in the area reported under "Other land" and should therefore be excluded when calculating the total area for the country.

**FAOSTAT figure

Source: Global Forest Resources Assessment 2005, Uzbekistan Country Report, FAO, Rome, 2005.

Forests are unevenly distributed over the territory of the country. According to the records of the Main Forestry Department, 84.1 per cent of the SFF area is desert and semi desert areas and 14.3 per cent are mountains. Only 1.6 per cent of SFF is located in the valleys and floodplains that were originally densely covered by forests. Small areas of riparian forests (*tugai*) are still located along the large rivers of the country. Until recently, relatively large areas were covered with forests, but, as a result of logging of the riparian forests and river flow control, their area has severely decreased. Mountain forests are still quite widespread. Desert shrubs and other sandy soil vegetation are important for stabilizing sands. The largest areas of steppe/desert shrublands are recorded in Bukhara region and the Republic of Karakalpakstan; smaller areas are also dispersed among the Surkhandarya, Khorezm and Syrdarya regions, and the Fergana valley.

The total number of tree species growing in the country is 75. The main species in mountain forests are junipers (*Juniper seravschanica*, *J. semiglobosa*, *J. turkestanica*), which cover 204,000 ha. Mountain forests also comprise broad-leaved species: *Juglans spp.*, *Ulmus spp.*, *Acer spp.*, *Acacia spp.*, *Salix spp.*, *Fraxinus spp.*, *Betula spp.* Desert forests consist of thickets of saxaul (*Haloxylon spp.*) with other bushes. Riparian forests consist of endemic poplars (*Populus diversifolia*, *P. alba*, *P. pyramidalis*, *P. nigra*, *P. bolleana*, *P. bachofenii*, *P. Uzbekistanica*, etc., as well as their hybrids) and various bushes. In valleys the forests consist of plantations of tree species introduced to Uzbekistan from other countries and such local species as *Platanus orientalis*, *Ulmus spp* and *Salix spp.*

The principal stakeholder in the SFF is the Main Forestry Department that manages 8.05 million ha (91.7 per cent of the total SFF area) assigned to it. The remaining SFF area is distributed as follows: 7.1 per cent is assigned to Tashkent Regional Khokimiyat, 1.0 per cent – to the State Committee for Nature Protection of the Republic of Uzbekistan and 0.2 per cent – to agricultural and other entities.

As was mentioned above, in Uzbekistan forests play an important role in nature protection. In September 4, 2001 the Cabinet of Ministers of the Republic of Uzbekistan issued Resolution 163 "On classification of forests in the Republic of Uzbekistan by protection categories". The Resolution classifies the forests as follows:

- Protection forest along rivers and around water reservoirs;
- Protection forest in mountains;
- Protection shelterbelts along railways and highways;
- Desert or semi-desert forest zones;
- Municipal parks;
- Forests in green zones around cities, other settlements and industrial centers;
- Forests around recreation zones;
- Forest consisting of valuable species;
- Forests in nut production zones;
- Forest and fruit-tree plantations;
- Forests in national parks and reserves;
- Forests of scientific or historical importance.

Pests, diseases and forest fires negatively affect the forest resources of the country (Table 2). According to the data from the pathology survey service, 89 insects and 53 diseases (mostly fungi) are found in the forests of Uzbekistan. The most common insects are: leaf-eating insects (including silkworms), Capricorn beetles, Buprestids, scales, seed-eating insects and codling moths. In Uzbekistan there are two laboratories where pest control techniques are developed and disseminated among forestry enterprises.

Table 2

Disturbances affecting health and vitality of forests, 1998-2002

(ha)

Forest area affected by	1998	1999	2000	2001	2002
Forest fires	66	N/A	73	131	9
Pest	22,587	21,015	19,099	16,977	14,657
Diseases	6,722	2,480	8,286	8,434	9,049

Source: Global Forest Resources Assessment 2005, Uzbekistan Country Report, FAO, Rome, 2005.

Due to certain measures undertaken by forestry organizations and with the support of regional authorities, the frequency of forest fires in Uzbekistan has decreased. However, forest fires still cause damage, especially in the southern (arid) zones of the Republic. Human activity is still the most common reason for fire.

According to the Law, "On Forest", and other legislative documents, the forestry sector is basically operated by the Main Forestry Department, which coordinates its activity with local authorities (provincial and regional authorities). An important point in the law is the clause about the assignment of forest lands for short-term leasing. Taking into consideration the changed economic situation and in order to achieve the sustainable forestry management, long-term leasing is now being considered.

Natural forests are sparsely distributed in Uzbekistan. Logging for industrial purposes is prohibited in the existing natural and semi-natural forests. The need for timber was satisfied by delivery of wood products from European Russia, Siberia and the Russian Far East. Long-distance transportation of the imported wood caused prices to increase. To meet further needs for

construction wood and pulp, in 1994 the Cabinet of Ministers of the Republic of Uzbekistan issued a resolution on the creation of industrial plantations of poplars and other fast-growing species. However, due to the lack of water resources for irrigation and soil salinity, the survival rate of planted trees was low, which resulted in a decrease of the area of poplar plantations. Furthermore, the remaining poplar plantations were seriously afflicted by trunk rot-causing fungi (Figures 6, 7 and 8).

Figure 6
Poplar planting, 1994-2002

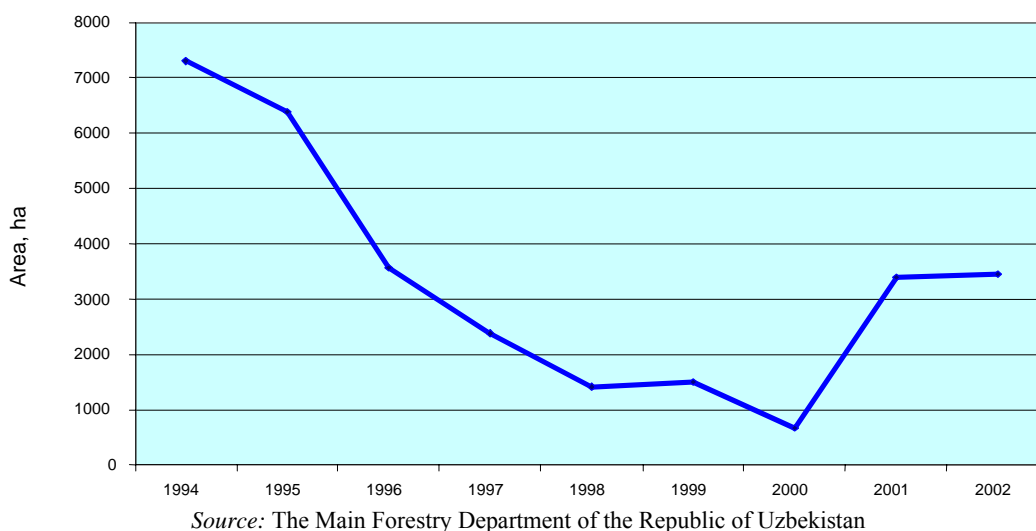
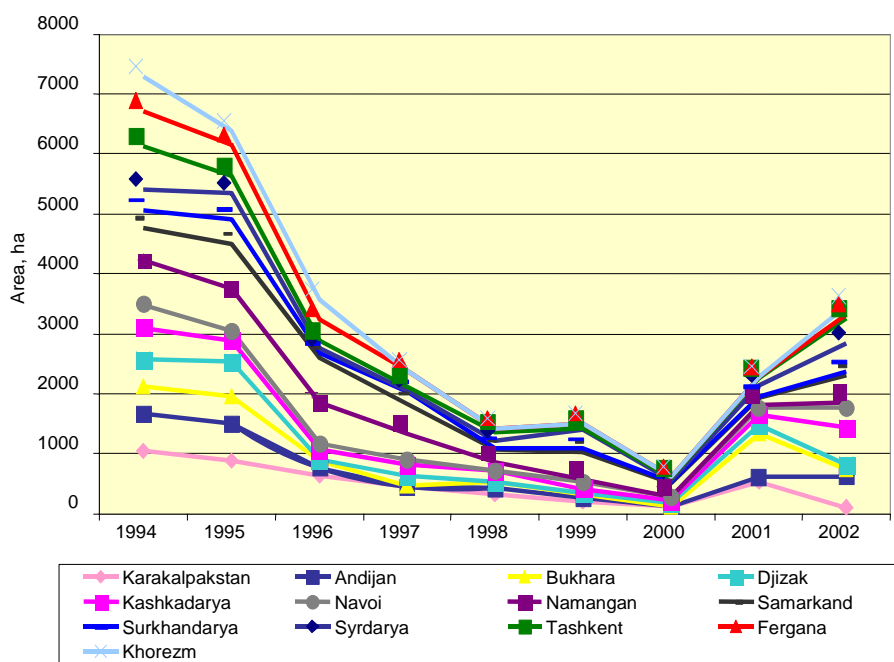
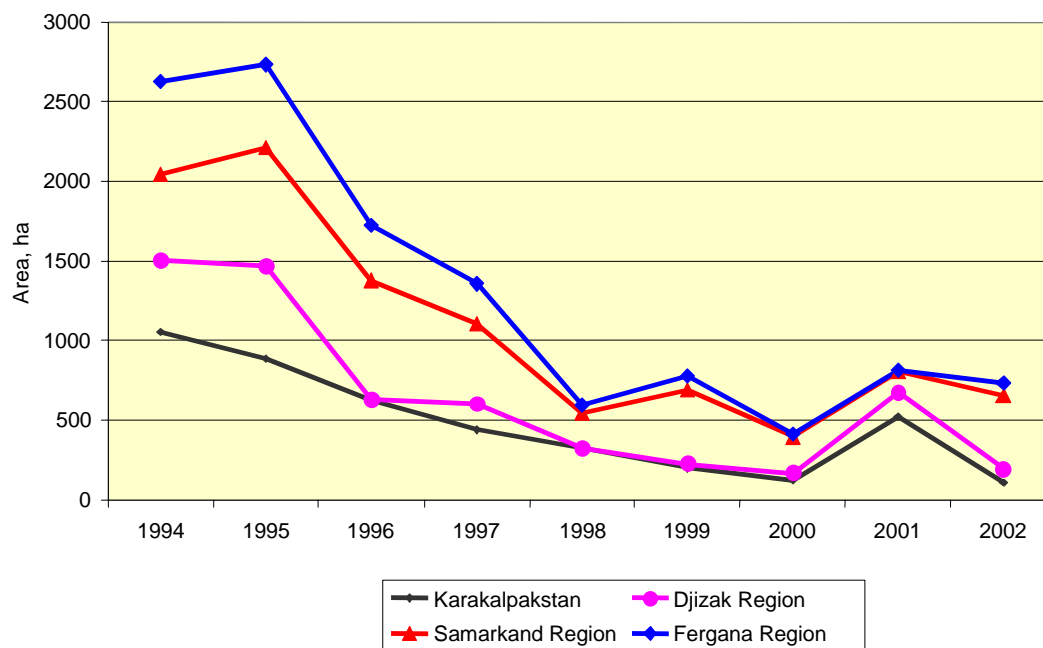


Figure 7

Dynamics of poplar planting in the regions of Uzbekistan, 1994-2002



Source: The Main Forestry Department of the Republic of Uzbekistan

Figure 8**Poplar planting in regions with ecological emergency situation, 1994-2002**

Source: The Main Forestry Department of the Republic of Uzbekistan

The sale of wood and non-wood forest products by forestry enterprises generates about 300-350 million Uzbek Sum in annual income (Table 3). Currently, more than 500 tons of food and medicinal plants (about 35 plant species) are harvested from the forests. Non-wood forest products include such plants as coriander, basil, fennel, onion-anzur, dog rose and raspberries. In addition, saplings and seeds of various woody and bush species are exported. For example, in 2004, seedlings of woody and bush species were donated to Afghanistan for gardening.

Table 3**Income from the forest in Uzbekistan, 2004**

Product or Service	Income	
	\$ 1000	%
Industrial roundwood	184.8	58.8
Woodfuel	49.3	15.7
Medicinal plants	27.02	8.6
Aromatic plants	0.94	0.3
Raw material for colourants and dyes	1.29	0.4
Hunting	38.43	12.3
Fishing	12.31	3.9
Total	314.09	100

Note: The data given are taken only from the reports of the Main Forestry Department

Source: Global Forest Resources Assessment 2005, Uzbekistan Country Report, FAO, Rome, 2005.

A big threat to the sustainability of forest resources is the illegal logging of trees and shrubs for fuel, though in many settlements natural gas is available (Table 4). Illegal logging is mainly recorded in remote saxaul forests in deserts far from forestry enterprises and forest guards. Many forestry enterprises do not have vehicles and the other equipment required to protect saxaul plantations and other desert plants.

Table 4
Illegal logging in Uzbekistan, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Volume, m³	1066.7	352.0	469.0	NA	301.0	620.89	725.28	1575.0	598.2	380.7

Note: Data are taken only from annual reports of the Main Forestry Department

Source: The Main Forestry Department of the Republic of Uzbekistan

The statistical information shows that illegally logged wood is mainly used as fuel. This is more common in rural areas than in cities. Most of the population of Uzbekistan lives in the valleys and only a small part of the population lives in deserts and mountains. Uzbekistan has its own sources of natural gas and many cities, towns and villages in valleys use natural gas. Gas consumption has increased over recent years. However, illegal logging is still occurring in those rural areas, which use natural gas especially as the price of gas, power and fuel is growing constantly.

5. WOOD-PROCESSING INDUSTRY

Harvesting of wood is only allowed as part of sanitary felling and thinning since all forests in Uzbekistan are classified as protective forests and are not available for industrial logging. The wood harvested is generally of low quality and small diameter. Consequently, it cannot be used for construction and is used mainly for sawnwood and hardboards, for producing matches, in the pulp and paper industry and for producing wooden cases. Besides it is widely used as woodfuel. The average annual amount of harvested wood is about 30,000 m³ of which about 32 per cent is industrial wood (Table 5).

Table 5
Wood removals in Uzbekistan, 1995-2004
(m³)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Industrial roundwood	3582	3362	5698	5020	NDA	4917	9625	9488	8417	8473
Woodfuel	21711	23626	13809	11524	NDA	14036	12420	13061	8043	8820
Branches	-	22701	16206	22920	NDA	10305	10902	9505	11915	9552
Total	25293	49689	35713	39464	NDA	29258	32947	32054	28375	26845

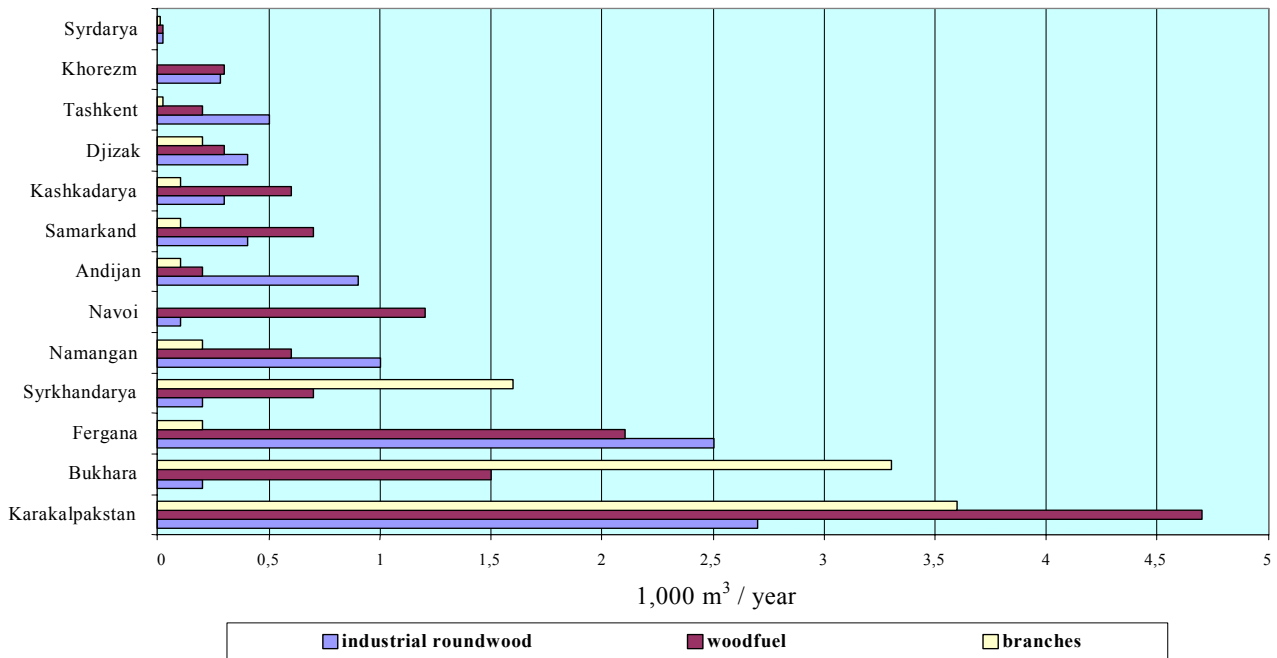
Note: The data given are taken only from the reports of the Main Forestry Department

Source: The Main Forestry Department of the Republic of Uzbekistan

Industrial wood removal was 2.5 times higher in 2003 than in 1995. Over the same period, the amount of wood harvested for fuel fell by 63 per cent, reflecting the increasing availability of natural gas in many provinces of the country (Figure 9 and Figure 10).

Figure 9

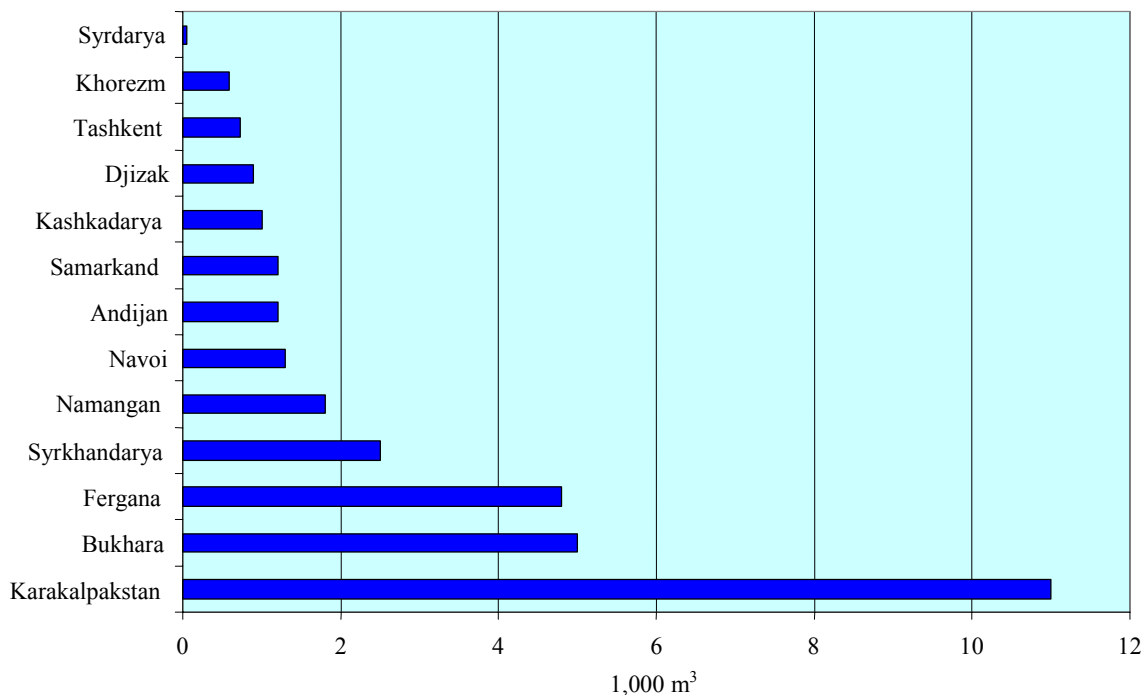
Uzbekistan wood removals by region, 2002



Source: The Main Forestry Department of the Republic of Uzbekistan

Figure 10

Uzbekistan roundwood removal totals by region, 2002



Source: The Main Forestry Department of the Republic of Uzbekistan

After the collapse of the Soviet Union, most economic relations were destroyed; however wood for industry was still delivered from the Russian Federation and northern Kazakhstan, although at a much reduced level. After Uzbekistan became independent, it became difficult to get roundwood and other wood products for the wood processing and furniture industry.

During the Soviet period, the existing state enterprises of wood processing, pulp and paper, and the manufacture of furniture and construction materials (windows, doors, parquetry, etc.) were under the control of “Uzbekmebel” (Committee on Furniture Production of the Republic of Uzbekistan), that had the status of a Ministry. In 2001, Uzbekmebel was liquidated and the holding company “Fayz” was established, with 22 enterprises initially, followed later by four more. Fayz specializes in the production of furniture and matches, but presently in 2005, all 26 of its enterprises are idle due to lack of raw material. The furniture sector in Uzbekistan uses fiberboard and sawnwood. The annual demand for sawnwood is about 30,000 m³, which is sourced mainly via locally grown and imported pine, walnut and sycamore.

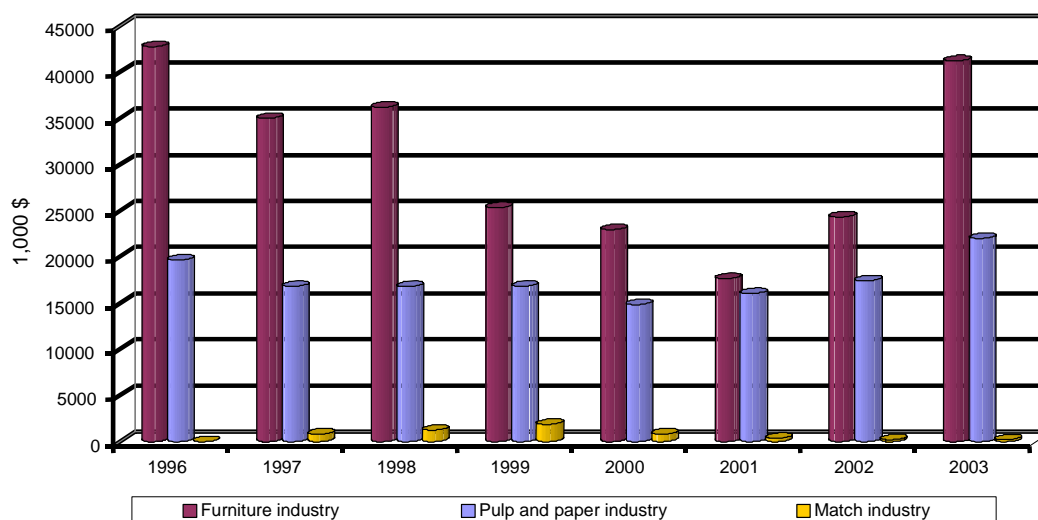
“UzEllas”, which also belongs to Fayz, was originally established as a joint venture between Greek and Uzbek parties to produce matches. However, the equipment for producing matchsticks from wood was not operating in 2005 because the local timber is not suitable (knots, buds and flammability issues). Currently, matchstick stock is imported from the Russian Federation. On average, about 200 million conventional boxes of matches are consumed in Uzbekistan per year, of which 50 million boxes are produced in Uzbekistan.

The open joint stock company “Uzbekkgoz” produces paper products in two factories (in Tashkent and Angren city), and has a pulp and paper mill in Yangiyul. Pulp manufacturing usually requires 75 per cent of its fibre from coniferous and 25 per cent from broadleaved trees (although pulp is also produced from cotton stalks and recycled paper). The annual production of the enterprise is 15,000-20,000 tons of bleached and non-bleached pulp. Considering that output of pulp from poplar is about 38 per cent and from pine 46 per cent, the wood raw material requirements are approximately equal to roughly 80,000-100,000 thousand m³. Paper manufacturers need to also import pulp because the domestic production capacities do not allow sufficient production of pulp. The Angren factory (financed partly from investments by the Government of Switzerland) produces cardboard boxes for the domestic market and export to Kyrgyzstan, Kazakhstan and Tajikistan. Both the Tashkent and Angren facilities are using only part of their capacity due to the shortage of raw material.

Production of wood products varies from year to year as a result of the unpredictable nature of the wood raw material supply, especially for furniture manufacture (Figure 11).

Figure 11

Value of wood products made in Uzbekistan for selected sectors, 1996-2003



Source: The State Committee on Statistics of the Republic of Uzbekistan

In addition to the previously mentioned enterprises, there are about 20 forestry enterprises that are small processors of roundwood. Seventy-six forestry enterprises are producing more than 60 types of products from processed wood, such as windows, doors, *khan-tahta* (low national tables), other furniture and tool handles. In 2004, wood consumption by these enterprises was 3,600 m³. More than 8,400 m³ of wood was sold to individuals and 1,300 m³ to organizations. In addition, some furniture, baskets and plates are made from reeds.

Uzbekistan is a country of small-scale wood-processing businesses. Wood is generally supplied from individuals in the private sector and is processed in small furniture or component shops.

After the proclamation of independence by Uzbekistan, the municipal construction of residential buildings for the population decreased considerably and people faced the problem of constructing their own houses. Windows, doors, parquet and flooring are the most used wooden articles. In addition, wood was used for roof beams and for ceilings. The necessary roundwood and other wood products were imported from other countries and prices rose for imported construction materials. This resulted in a search for alternatives to wood, such as plastic, aluminum and concrete. Therefore, for windows, builders often buy components, such as the so-called “glass package” made of glass and aluminum. Instead of wooden beams they use concrete beams. However, in remote areas builders use traditional wooden construction materials for building.

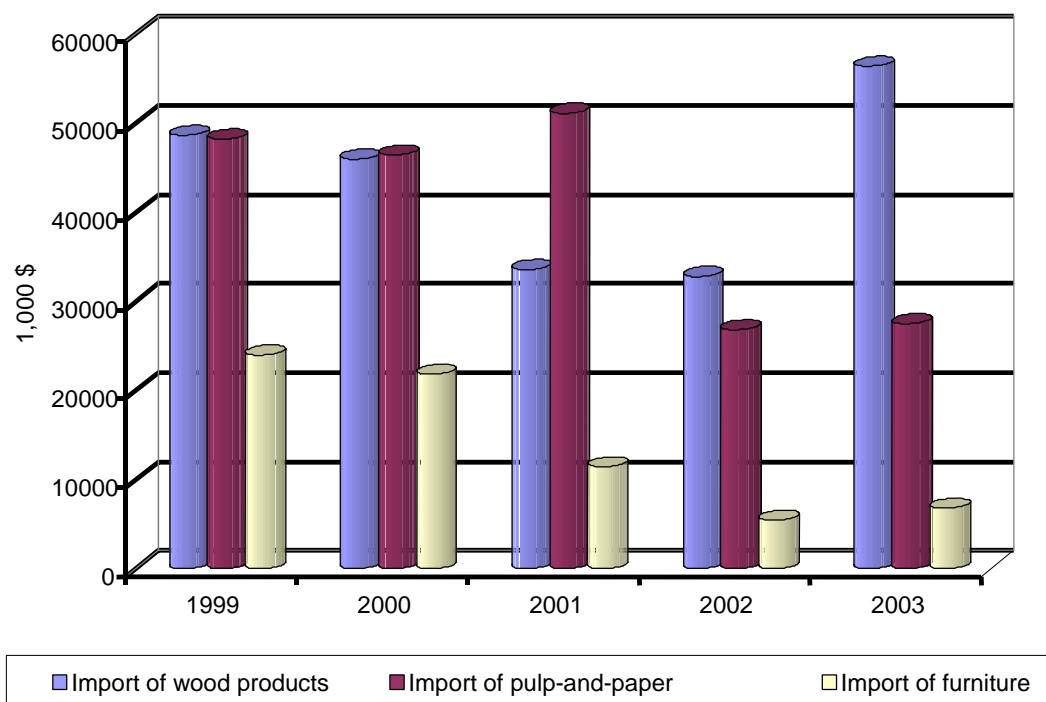
6. TRADE

Prior to 1991, to meet the needs of the population in construction timber, woodfuel, paper and furniture, roundwood and semi-processed and processed wood products were delivered to Uzbekistan from other parts of the USSR. After independence, Uzbekistan faced a shortage of wood and wood products. Currently, a substantial amount of roundwood and wood products is still imported from the Russian Federation (Altai, Siberia) and northern Kazakhstan, although wood imports have reduced considerably since 1990.

Imports include roundwood, furniture and paper products. The preferred species are pine, birch, poplar and oak. The volume of imported wood and wood products increased significantly in 2005 as compared to the previous five years, while import of pulp and paper and furniture dropped by roughly 50 per cent and 75 per cent respectively. Pulp and paper demand is covered mainly by raw material produced locally (Figure 12).

Figure 12

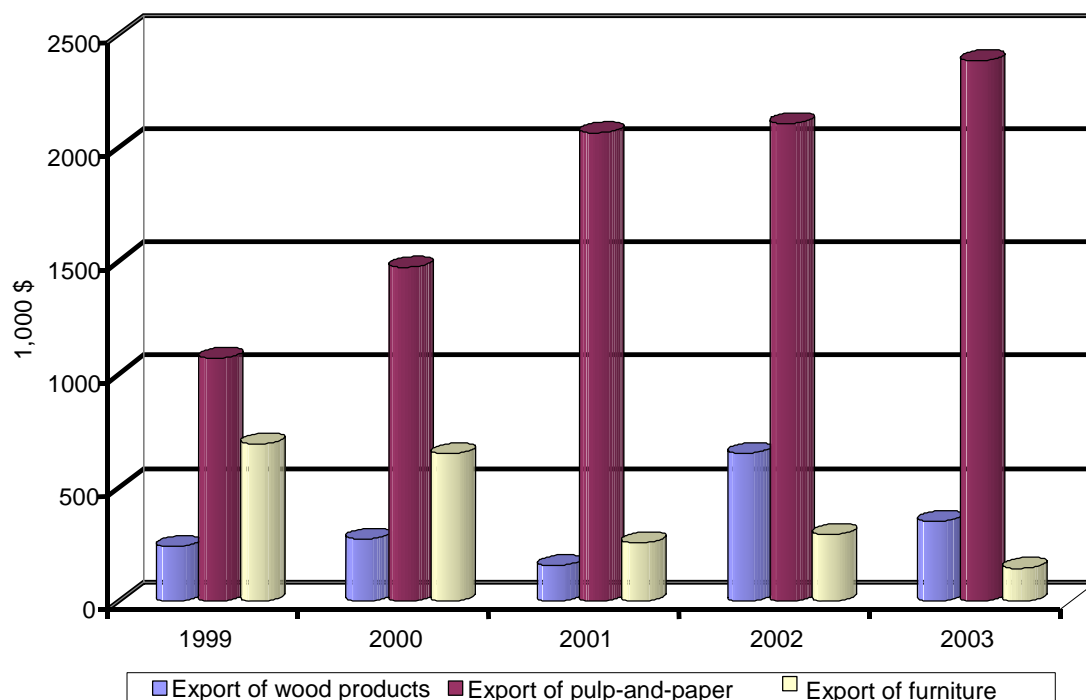
Uzbekistan imports of selected forest products, 1999-2003



Source: The State Committee on Statistics of the Republic of Uzbekistan

Despite the low productivity of the wood processing industry in the country, the total annual income from exports of wood and pulp and paper products amounts to more than \$90 million. The products are exported mainly to neighboring countries of the Central Asian region and include plywood, sawnwood, woodfuel, roundwood and paper and uncoated paperboard as well as packaging paper. In addition, the export of pulp from non-wood fibres, such as cotton stems, after harvesting also brings profits to the country. In 2003, the total income from exported products was almost \$3 million, with the trade of pulp and paper products being the most important. The export of paper is increasing from year to year, but furniture exports are falling continuously. In 2003, paper exports generated up to \$3 million in profit. Trade in plywood, sawnwood and other wood products was not stable over the five-year period (Figure 13, Table 6).

Figure 13
Uzbekistan exports of selected forest products, 1999-2003



Source: The State Committee on Statistics of the Republic of Uzbekistan

Table 6
Roundwood and processed material, 1999-2003
(m³)

	1999	2000	2001	2002	2003
Import	359,778	983,854	465,461	611,169	618,027
Export	974	3,347	3,806	5,563	3,263

Source: The State Committee on Statistics of the Republic of Uzbekistan

There is an insignificant volume of charcoal and woodfuel trade between Uzbekistan and neighboring countries (Table 7).

Table 7
Charcoal and woodfuel, 1999-2003

	Unit	1999	2000	2001	2002	2003
Import						
Wood charcoal	Tons	15.6	0	0	0.5	1.0
Wood fuel	m ³	3,000.1	11,185.2	312.2	208.1	0.4
Export						
Wood fuel	m ³	30.5	0	0	0	1,562.4

Source: The State Committee of Statistics of the Republic of Uzbekistan

The wood is sold in several ways. Some wood is sold in auctions, although for the most part it is sold in local markets. Therefore, competition is observed mainly between individual suppliers. The current situation requires a review of the existing procedures and an improvement in the management of the wood and wood products market in order to provide the country with the required quantity of wood and to avoid illegal selling of timber imported from other countries.

7. PRICES

Forest-rich countries have developed systems of timber and wood products pricing. Uzbekistan does not possess large timber resources and consequently does not have an appropriate system for the pricing of standing timber and other wood products. Roundwood in Uzbekistan is obtained when sanitary fellings and thinnings are carried out by forestry enterprises. It is sold to organizations and individuals as roundwood and sometimes furthered processed if there is a sawmill in the forestry enterprise. The prices for timber and processed wood products in forestry enterprises depend on the prices in the local markets. Usually domestic prices are lower due to the poorer quality of local timber than the quality of imported timber. Prices have increased over the years because of inflation. Prices vary depending on the region of the country and domestic market demand (Table 8).

Table 8

Prices for local roundwood sold by forestry enterprises, 2000-2005

(UZS 1,000/m³)

	2000	2001	2002	2003	2004	2005
Roundwood	8.9	9.6	13.7	25.2	26.9	38.1

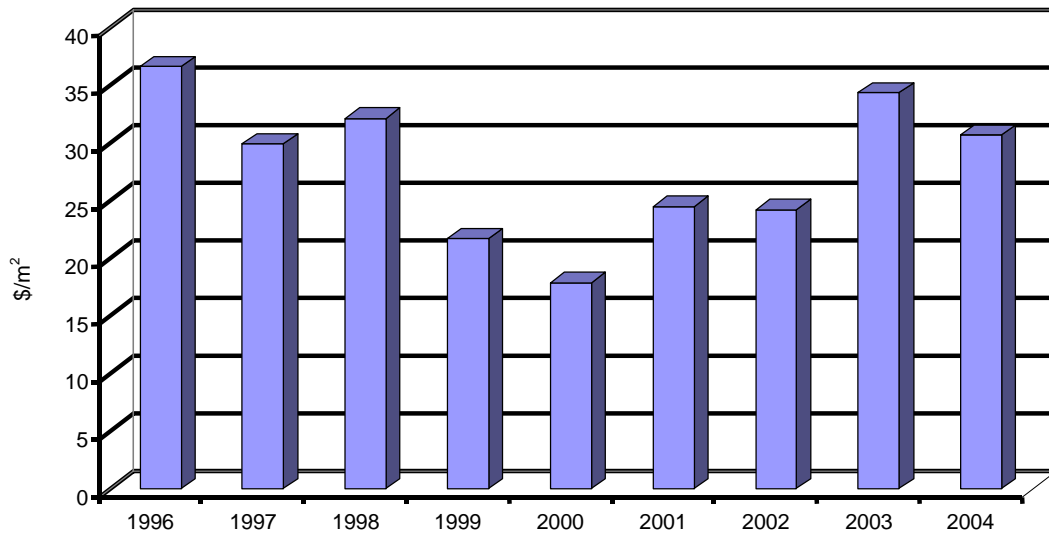
Source: The Main Forestry Department of the Republic of Uzbekistan

The prices for woodfuel have varied over the years from 2 to 7 thousand UZS/m³.

As was mentioned above, Russian timber is preferable to timber from northern Kazakhstan due to the better quality of the logs. Consequently, the market price for Russian timber is higher and is about \$100/m³ for roundwood and about \$200/m³ for processed wood products, while the price of timber delivered from Kazakhstan is \$50-60/m³. The Government of Uzbekistan undertook some steps to encourage entrepreneurs to supply wood to the country. Customs regulations require that companies importing wood pay a value-added tax (VAT) at 20 per cent rate, plus a service fee of 0.2 per cent of the total value of the goods. Individuals have an advantage: they pay only the customs service fee and are exempt from paying VAT. Therefore, most wood is imported by individuals. The price of wooden goods in the domestic markets is high due to the high cost of transportation by railway. Timber from northern Kazakhstan is not of good quality due to the small size of logs and knots. It is delivered mainly by truck.

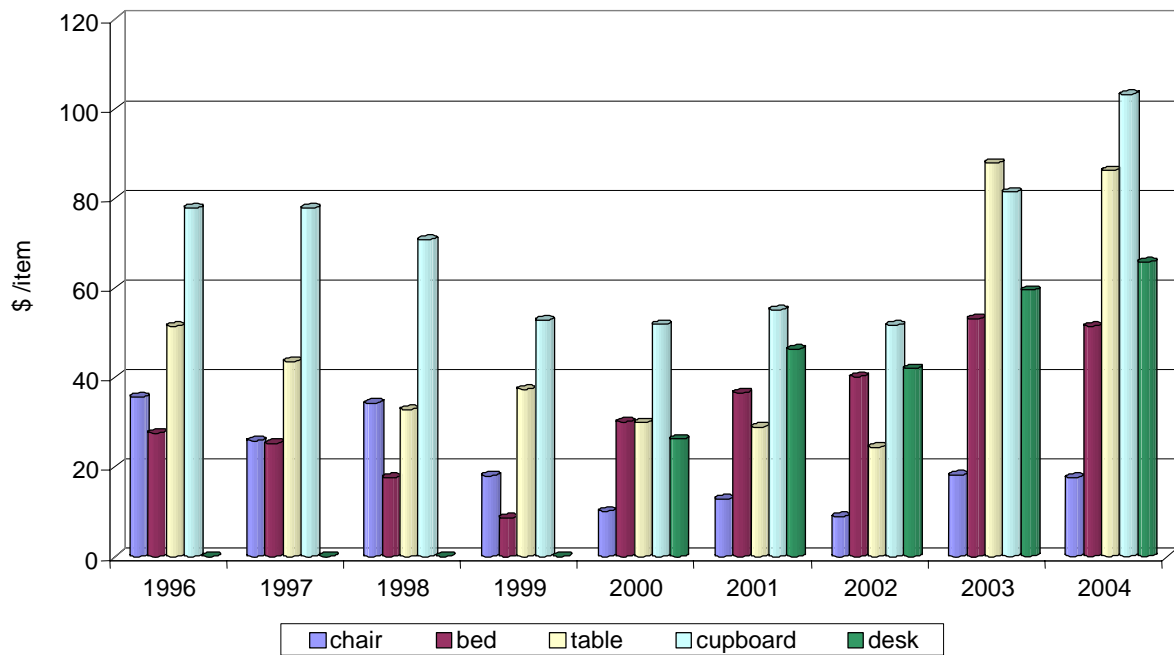
Market prices influence the prices for goods of wood processing and pulp and paper industry (Figures 14, 15 and 16). The prices in the diagrams show the variation every year. This can be explained by the fact that many small shops specialize in producing furniture and construction items. Their production rate depends to a great extent on the raw material prices. Stable prices are observed only for notebooks and cardboard, as they have remained approximately the same over a number of years.

Figure 14
Prices of windows and doors in Uzbekistan, 1996-2004



Source: The State Committee on Statistics of the Republic of Uzbekistan

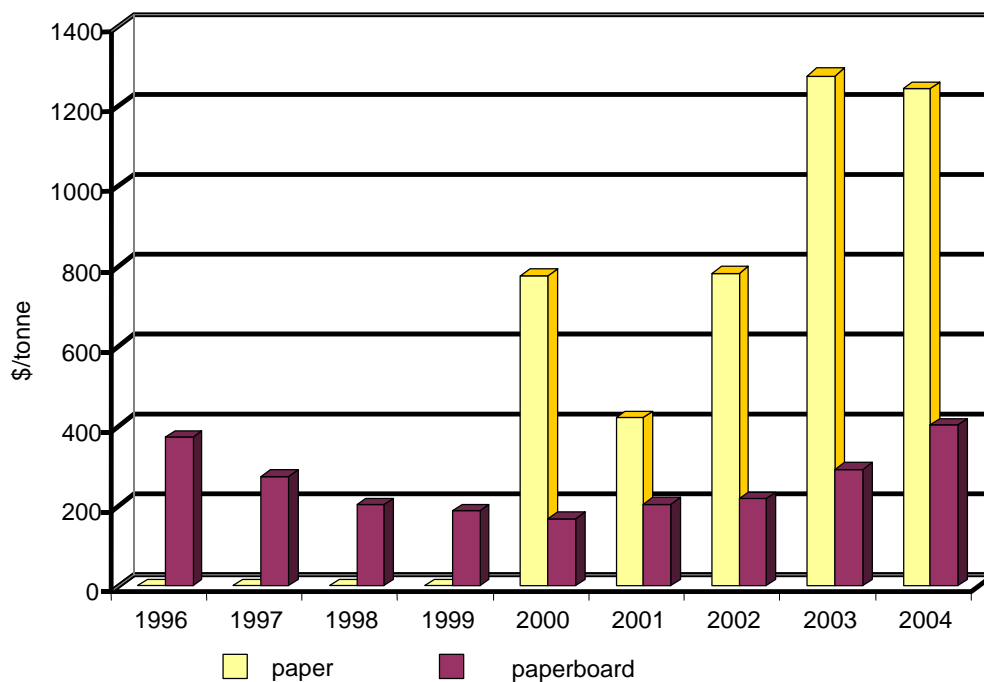
Figure 15
Prices of selected items of furniture in Uzbekistan, 1996-2004



Source: The State Committee on Statistics of the Republic of Uzbekistan

Figure 16

Average price of selected paper products in Uzbekistan, 1996-2004



Note: Paper prices before 2000 are not available.

Source: The State Committee on Statistics of the Republic of Uzbekistan

8. POLICY AND INSTITUTIONS

8.1 Institutions in Uzbekistan

The principal government agency with direct responsibility for the State Forest Fund (SFF) is the Main Forestry Department under the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan. The Main Department of Forestry and Nature Protection was originally established in 1945. It went through a number of reorganizations and in 2000 was transformed into the Main Forestry Department (MFD) under the Ministry of Agriculture and Water Resources.

The primary goals of the MFD are as follows:

1. Carrying out a uniform policy to expand the rational use of forest resources, while propagating and improving the forest fund and their ecological and reclamation value, in order to meet the economic needs of the country for wood products.
2. Inventory and study of the fauna and flora.
3. Manage reserves, hunting, protection of flora and fauna; insure regulatory compliance; and carry out the harvest and storage of medicinal and food plants.
4. Observe and implement forest legislation, specifications and technical documentation on the management of forestry and hunting.

5. Management of the use, reproduction and protection of forest resources, including reserves and national parks on forested lands.
6. Management and supervision of hunting and hunting regulations on forested lands.

The MFD consists of six divisions and manages 97 local departments and forestry enterprises. It also includes the following subsidiary departments regulating the use of forests and non-wood products:

1. Design Research Organization “Urmon-Loyiha”
2. The Department of Hunting, Reserves and National Parks
3. Training Center for Improving Forestry Qualifications
4. Forest Seed Station
5. Production Association “Shifo-Bakhsh”

The Department of Hunting, Reserves and National Parks (DHRNP) is directly responsible for the management of two national parks (Zaamin and Ugam-Chatkal), six nature reserves (Zaamin, Badai-Tugai, Kyzylkum, Zerafshan, Nurata, Surkhan) and one natural monument (Vardanzi).

The protection of forest resources is carried out by the State Forestry Inspection, with a staff of more than 1,000 inspectors, including those from the Department’s headquarters, regional departments, forest nurseries and state reserves. The corporation “Uzfish” is responsible for the management and agency-level protection of fishery resources in natural and artificial reservoirs and streams. It is responsible for the management of the Arnasai Ornithological Conservation Area, which constitutes about 0.2 per cent of all protected areas but about 56 per cent of protected wetland areas.

Local departments of the MFD carry out planting work (for land improvement and fuelwood) and are engaged in the cultivation, planting and sale of fruit and timber seedlings.

In 2005, the Republican Scientific Production Center on Decorative Horticulture and Forestry (RSPCDHF) was established under the MFD on the basis of the former Uzbek Research Institute of Forestry. It manages the following organizations and forestry enterprises in 11 regions:

1. Seven forest experimental stations
2. Two specialized enterprises
3. Ten production sites
4. One specialized forestry enterprise
5. “Urmonmash” State Enterprise.

The main activities of RSPCDHF are:

- The development and implementation of a common strategy for decorative horticulture based on the needs of the domestic and foreign markets;

- The development and introduction of advanced scientific technologies for the cultivation of decorative plants;
- The development and adoption of a common system for the certification and standardization of decorative plantings;
- The development of recommendations for the introduction of decorative plants in regions with different soil and climatic conditions;
- Assistance to various institutions in the cultivation of decorative plants.

Approximately 7,300 people are involved in the country's forestry sector. Of these, 496 are in administration, 648 are in higher education (including 193 engineers/foresters), and 30 are huntsmen. The remainder are workers.

The State Committee for Nature Protection (SCNP) is responsible for coordinating nature protection activities, including:

- Implementing a Government policy on the protection of the natural environment and use and restoration of natural resources;
- Coordinating the management of nature protection activities;
- Taking other actions toward an ecologically sustainable and healthy environment;
- Managing protected areas and ensuring the integrity of their protective regime.

Within the SCNP, the State Biological Control Service (SBCS) is responsible for regulating the conservation of flora and fauna and for the sound management of protected areas.

The non-governmental organization (NGO) "Ecoles" was established in 1996. It undertakes the propagation and development of information on forestry.

The Union of Hunters and Fishermen of Uzbekistan is a national-level NGO using, on a long-term basis, game and fishery lands.

The Geology State Committee is responsible for the management of the Kitab Geological Reserve.

8.2 Forestry education in Uzbekistan

The only institution educating foresters in Uzbekistan is the Tashkent State Agrarian University, formerly the Tashkent Agricultural Institute (founded in 1935, with the Faculty of Forestry established in 1944). About 25 people graduate from the forestry programme each year. Other schools with some elements of a forestry curriculum are located in Kensai village close to Tashkent and in the Surkhandarya Region (where forestry is combined with horticulture).

There is a Training Center for Improving Forestry Qualifications under the MFD. Several times a year, foresters from local departments and forestry enterprises gather to improve their skills and get training in new technologies in silviculture as well as to share experience with other participants.

The National University is where ecologists are educated. The Academy of Sciences, which includes the Scientific Production Corporation, “Botanika” (“Botany”), and the Institute of Genetics and Experimental Biology of Plants, leads Uzbekistan academic institutions in the field of plant biology, including woody plants. Students from the State University and the Tashkent State Agrarian University carry out fieldwork under the auspices of institutes, depending on their specialty. The quality of education in all of these institutions is very high. A good network of scientific communication and collaboration exists among Central Asian States.

8.3 Forestry-related legislation

The Forestry Code was adopted in 1978. It regulates forest use and restoration. It was revised in 1999, with the adoption of some normative measures, including harvesting, livestock grazing and grazing in forests.

The law on “Protection and use of wildlife” (1982) provides legal acts aimed at the protection, sustainable use and the reproduction of wildlife.

The law on “Land” was adopted in 1990 and modified by the Supreme Council of the Republic of Uzbekistan in 1991, 1993 and 1994. It regulates the use and protection of land, the fertility of soils, and improvements to the natural environment.

Adopted in 1992, the law on “Protection of nature” defines legal, economic, and organizational principles to protect the natural environment, the rational use of natural resources, and the protection of ecological systems, natural complexes and natural monuments. It guarantees the rights of citizens to a clean environment and regulates the power of official bodies and departments in the field of nature protection.

The law on “Specially protected natural territories” (1993) determines legal, organizational and economic principles for the management of protected natural territories. The law was reviewed and another law on “Protected natural territories” was issued in 2004. According to the latest versions all forest lands of the SFF are related to protected areas and classified as “territories of management of separate natural resources”.

Authorized in 1993, the law on “Water and water use” regulates water-related areas, rational use of water for the needs of the population, and business. The law protects water from contamination and depletion, and governs water rights issues.

The law on “Protection of air” was adopted in 1996.

In addition to the above, regulations for protecting endangered species of plants and animals are implemented via the Resolutions of the Supreme Council of the Republic of Uzbekistan of 1993, number 937-XI1, on “Greater protection of valuable and vanishing plants and animals and regulating their use; Resolution of Cabinet of Ministers of the Republic of Uzbekistan of 1993, number 600, on “Measures on strengthening of protection of wild animals and plants and regulation of their use”; and “Instruction of the Cabinet of the Ministers of the Republic of Uzbekistan of 1996, number 76-F, on the “Regulation of import/export of birds of prey”.

Hunting and fishing in Uzbekistan is carried out according to the above-mentioned laws as well as with the “Ordinance on hunting and support of a hunting and fishing facilities on the territory of the Republic,” authorized by Resolution of the Cabinet of Ministers in 1991, number 95;

and “Rules of hunting and fishery on territory of the Republic”, authorized by orders of State Nature Protection Committee in 1992 and 1993.

9. FOREST SECTOR OUTLOOK

The economy of Uzbekistan was among the poorest in the former Soviet Union. Industry was concentrated on the production of primary commodities and the country was heavily dependent on imports of food, oil and most manufactured goods. The population grew rapidly, especially in rural areas where little off-farm employment was available. After proclaiming independence, the Government of Uzbekistan adopted the strategy of a gradual transition, with an emphasis on self-sufficiency in energy, food grains and import reductions. At the same time, ecological problems became more acute. Many economic relations between the former Soviet republics were destroyed, and this negatively affected the forestry sector. The basic laws on forest resources use, development and management are the same as those that existed in Soviet times. They remain largely unadjusted to the new socio-political and economic realities of the post-Soviet era.

The current forest legislation needs to be revised and the adoption of new forms of sustainable forestry management is necessary. A shortage of funds for foresters and poor equipment of forestry enterprises has led to significant losses of wood through increased illegal logging. There has been a decline in the number of highly skilled experts – foresters, ecologists and forest guards. The equipment used and technologies applied in the wood processing and the pulp and paper industrial enterprises are obsolete.

The current situation in the forestry sector is characterized by a degradation of forest lands and a lack of organized forest management, which has resulted in soil erosion, water quality and quantity issues, and loss of biodiversity. In deserts and semi-deserts, the loss of forests caused wind erosion lifting tons of sand and salt, which has negatively impacted crops and the health of the population. Taking into account that in low forest cover countries the forestry sector is not considered as critical to the economy, to improve the situation it is necessary first to allocate additional funds for existing natural forest restoration and protection, and afforestation. There is also an acute need for an inventory of the SFF to identify vulnerable sites that require special attention.

Currently, the main stakeholders of the SFF are the MFD, the State Committee on Nature Protection, the Tashkent Regional Khokimiyat and some other organizations. To improve forestry and put forest management on a sustainable basis, it is necessary to revise forest legislation, making the national forest programme more accessible for all stakeholders. As the biggest threat to the forests of Uzbekistan is illegal logging and uncontrolled overgrazing, equipping forestry staff with vehicles and communication tools is necessary.

The needs of the country for wood can be satisfied through plantations of fast-growing poplars and pines on fertile irrigated lands.

International experience has shown the effectiveness of involving local people in forest management. One of the most effective ways would be leasing non-forested lands of the SFF for long-term use, provided that farmers plant and cultivate trees on the rented plots for afforestation and also develop non-wood products on their plots.

Initially, expenses for restoring forests may seem high; however, restored forests will prevent erosion and preserve water for irrigation. Forest shelterbelts and “green zones” around cities and industrial complexes will protect agricultural crops from the harmful effects of salt dust and

promote increased productivity. Industrial plantations will help provide the country with the wood required for the wood-processing and pulp and paper industries.

In 2005, the current transitional economic and socio-political period in Uzbekistan could be considered a difficult time for the development of a sustainable protection for forest resources. Considering the population growth in the country, the current forest management system cannot meet the future needs of the population for wood products. Hence, new industrial systems and approaches of using and managing forest resources need to be developed with a view to improving efficiency and sustainability. This will create the opportunity to develop a new system of forest management, new policies and approaches regarding the use of forest resources. To fully capitalize on this opportunity, the Government of Uzbekistan should consider the protection and sustainable use of forest resources as one of its priority issues, and should allocate to it the appropriate financial and organizational resources.

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ANNEX I

UZBEKISTAN AND INTERNATIONAL CONVENTIONS AND AGREEMENTS

- Vienna Convention for the Protection of the Ozone Layer. Signed 1985, ratified 1993.
- Montreal Protocol on Substances that Deplete the Ozone Layer. Signed 1987, ratified 1993.
- Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal. Signed 1989, ratified 1995.
- United Nations Framework Convention on Climate Change. Signed 1992, ratified 1993.
- United Nations Convention to Combat Desertification in the Countries Mostly Affected by Severe Drought and/or Desertification, Particularly in Africa. Signed 1994, ratified 1995.
- The Convention on Biological Diversity. Signed 1992, ratified 1996.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Signed 1973, ratified 1997.
- UNESCO World Heritage Convention. Signed 1973, ratified 1995.
- Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques. Signed 1977, ratified 1978.
- The Convention on Conservation of Migrating Species of Wild Animals (CMS). Ratified 1998.
- Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat. Ratified 2002.

ANNEX II TABLES

A. Demographic changes

Table 9
Population growth, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Population (1000 people)	22,785	22,906	23,349	23,772	24,136	24,488	24,813	25,116	25,428	25,707
Lifespan (years)	70.2	70.2	70.2	70.2	70.2	70.2	70.3	70.3	70.3	

Source: Ministry of Economics of the Republic of Uzbekistan

Table 10
Demographic changes, 1991-2002

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Birth rate (per 1,000 people)	34.5	33.1	31.5	29.4	29.8	27.3	25.5	23.4	23.1	22.1		20.0
Fertility rate (births per woman)	4.2	4.0	3.8	3.6	3.6	3.3	3.1	2.8	2.7	2.6		2.3
Death rate (per 1,000 people)	6.2	6.5	6.6	6.6	6.4	6.2	5.8	5.9	5.9	5.8		5.6
Employment in agriculture (% of total employment)	41.9	43.5	44.4	43.2	40.9	40.9	40.5	39.4	38.5	34.4		

Source: World Bank

Table 11
Population: Internal migration, 1996-2002
 (persons)

Immigration							
	1996	1997	1998	1999	2000	2001	2002
Urban	89,193	90,418	86,267	82,420	74,799	80,372	88,274
Rural	42,477	50,862	51,770	71,194	65,663	64,315	57,101
Total	131,670	141,280	138,037	153,614	140,462	144,687	145,375
Emigration							
	1996	1997	1998	1999	2000	2001	2002
Urban	73,911	73,193	60,511	78,015	71,539	68,985	68,807
Rural	65,274	73,248	70,392	86,392	78,388	81,081	80,762
Total	139,185	146,441	130,903	164,407	149,927	150,066	149,569
Migration Increment							
	1996	1997	1998	1999	2000	2001	2002
Urban	15,282	17,170	25,756	4,405	3,260	11,387	19,467
Rural	-22,797	-22,331	-18,622	-15,198	-12,725	-16,766	-23,661
Total	-7,515	-5,161	7,134	-10,793	-9,465	-5,379	-4,194

Source: Ministry of Economics of the Republic of Uzbekistan

Table 12
Population involved in real economy sector, 1990-2002

(1,000 people)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Industry	1,034	1,202	1,147	1,167	1,067	1,087	1,107	1,109	1,114	1,124	1,145	1,160	1,184
Agriculture	3,135	3,470	3,612	3,688	3,622	3,485	3,505	3,535	3,467	3,220	3,093	3,062	3,075
Construction	710	680	598	561	520	528	539	560	573	640	676	702	726
Services	2,897	2,973	2,929	2,858	2,954	3,074	3,410	3,404	3,646	3,901	4,069	4,212	4,334
Total	7,777	8,326	8,286	8,274	8,163	8,174	8,561	8,608	8,800	8,885	8,983	9,136	9,319

Source: Economical Trends of Uzbekistan and Ministry of Economics of the Republic of Uzbekistan

Table 13
Permanent population, 1996-2000
 (1,000 people)

Age	1996			1997			1998			1999			2000		
	total	female	male	total	female	Male	total	female	male	total	female	male	total	female	male
Total	22,906.5	11,535.7	11,370.8	23,348.7	11,747.8	11,600.9	23,772.3	11,952.4	11,819.8	24,135.6	12,127.4	12,008.1	24,487.7	12,294.4	12,193.3
0-2	1,953.5	954.1	999.3	1,913.3	932.6	980.8	1,871.8	911.5	960.4	1,754.7	853.6	901.1	1,664.7	811.3	853.4
3-5	2,012.2	986.9	1,025.3	2,010.5	985.9	1,024.6	1,952.2	954.7	997.5	1,929.9	943.5	986.4	1,892.6	923.2	969.4
6-7	1,266.8	621.8	645	1,278.7	625.8	652.9	1,335.5	655.8	679.6	1,352.8	664.4	688.4	1,319.7	645.8	673.8
8-15	4,565.5	2,259.8	2,305.7	4,709.5	2,329.9	2,379.9	4,818.3	2,380.3	2438	4,937.2	2,435.1	2,502.1	5,067.1	2,497.0	2,570.1
16-17	940.5	466.4	4741	967.1	478.9	488.2	995.7	493.1	502.6	1,032.4	512.1	520.3	1,066.6	530.0	536.6
18-19	885.5	440.1	445.4	892.3	443.0	449.4	934.8	463.7	471	961.1	476.2	484.9	991.3	490.2	501.1
20-24	2,062.1	1,021.8	1,040.2	2,098.6	1,038.7	1,060.0	2,114.8	1,049.0	1,065.8	2,157.8	1,071.9	1,085.9	2,219.0	1,101.4	1,117.6
25-29	1,767.4	896.8	870.6	1,818.1	918.8	899.3	1,883.5	946.3	937.2	1,926.8	961.4	965.4	1,974.6	984.6	990.0
30-34	1,719.3	875.5	843.8	1,711.3	875.0	836.2	1,697.0	867.3	829.7	1,704.5	871.7	832.8	1,702.7	867.4	835.2
35-39	1,485.6	750.4	735.2	1,562.9	789.7	773.1	1,623.3	821.8	801.5	1,651.8	839	812.8	1,673.5	851.2	822.3
40-49	1,750.3	890.1	860.1	1,883.7	958.3	925.4	2,009.9	1023	986.9	2,168.4	1,102.9	1,065.4	2,315.0	1,177.8	1,137.2
50-59	1,073.3	541.9	531.4	1,040.2	527.1	513.1	1,038.3	526.2	512.1	1,025.5	520.4	505.1	1,026.1	520.6	505.5
60-69	885.4	473.2	412.2	903.6	481.1	422.5	913.4	486.5	426.9	924.9	492.3	432.6	936.3	497.7	438.6
70 & older	539.2	356.9	182.3	558.8	363.4	195.4	583.8	373.3	210.5	607.7	383	224.6	638.4	396	242.4

Age	2001			2002			2003			2004		
	total	female	male	Total	female	male	total	female	male	total	female	male
Total	24,813.1	12,449.2	12,363.9	25,115.8	12,594.7	12,521.1	25,427.9	12,743.4	12,684.5	25,707.4	12876	12831.4
0-2	1,588.8	774.4	814.4	1,551.7	756.0	795.7	1,542.1	749.9	792.2	1,524.0	739.7	784.3
3-5	1,851.6	902.3	949.3	1,736.8	845.6	891.2	1,648.8	804.1	844.7	1,573.6	767.5	806.1
6-7	1,275.9	624	651.9	1,272.3	622.1	650.2	1,260.1	614.4	645.7	1,196.9	582.4	614.5
8-15	5,148.1	2,534.3	2,613.8	5,173.7	2,542.4	2,631.3	5,152.9	2,529.6	2,623.3	5,150.4	2525.4	2625.1
16-17	1,119.4	555.2	564.2	1,189.2	589.9	599.3	1,246.5	617.4	629.1	1,269.4	627	642.5
18-19	1,026.6	508.8	517.8	1,057.4	526	531.4	1,108.9	550.5	558.4	1,178.4	584.9	593.5
20-24	2,270.7	1,126.2	1,144.5	2,323.0	1,151.5	1,171.5	2,402.4	1,191.4	1,211.0	2,478.2	1229.9	1248.3
25-29	2,012.8	999.2	1,013.6	2,047.6	1,014.8	1,032.8	2,060.4	1,023.6	1,036.8	2,093.9	1042.3	1051.7
30-34	1,726.2	878.1	848.1	1,772.9	898.3	874.6	1,833.4	923.5	909.8	1,871.3	936	935.3
35-39	1,677.1	856.3	820.8	1,667.7	855.2	812.6	1,652.1	846.9	805.2	1,656.7	849.9	806.8
40-49	2,444.0	1,242.8	1,201.2	2,583.4	1,313.5	1,269.9	2,697.7	1,372.3	1,325.4	2,816.6	1434.5	1382.2
50-59	1,066.1	542.5	523.6	1,117.2	570.1	547.0	1,194.3	613.0	581.3	1,300.9	670	630.9
60-69	951.4	502.7	448.7	955.1	501.6	453.4	936.3	487.8	448.5	896.6	465.1	431.5
70 & older	654.2	402.3	251.9	667.9	407.8	260.1	692	418.9	273.0	700.4	421.5	278.9

Source: The State Committee on Statistics of the Republic of Uzbekistan

B. Economic changes

Table 14

Main indicators of economic development, 1991-2001

(in % of the previous year)

Indicator	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP	99.5	88.9	97.7	94.8	99.1	101.7	105.2	104.3	104.3	103.8	104.2
Industry	101.5	93.3	103.6	101.6	100.1	102.6	104.1	103.6	105.7	106.4	108.1
Agriculture	98.9	93.6	101.3	92.7	102.2	94.4	105.8	104.1	105.6	103.1	104.2
Capital investments	105.0	68.0	95.0	78.0	104.0	107.0	117.0	115.0	102.0	101.0	103.7
Volume of wholesale trade	82.3	59.0	127.5	90.4	95.7	122.2	112.6	114.2	109.5	107.6	109.6
Volume of services provided	84.2	57.4	69.4	76.6	73.0	109.8	121.4	110.3	113.0	115.7	114.7

Source: The State Committee on Statistics of the Republic of Uzbekistan (www.gov.uz)

Table 15

Indicators of foreign economic activity, 2001-2002

(\$ million)

	2002	In % of total volume	2001	In % of total volume	Change 2002 over 2001 in %
Trade turnover	5,700.4	100	6,307.3	100	-9.6
With the EECCA countries	1,823.8	32.0	2,258.7	35.8	-19.3
With the non-EECCA countries	3,876.6	68.0	4,048.6	64.2	-4.2
Export	2,988.4	100.0	3,170.4	100.0	-5.7
With the EECCA countries	823.5	27.6	1,090.6	34.4	-24.5
With the non-EECCA countries	2,164.9	72.4	2,079.8	65.6	4.1
Import	2,712.0	100.0	3,136.9	100.0	-13.5
With the EECCA countries	1,000.3	36.9	1,168.1	37.2	-14.4
With the non-EECCA countries	1,711.7	63.1	1,968.8	62.8	-13.1
Trade balance	276.4		33.5		725.1
With the EECCA countries	-176.8		-77.5		-128.1
With the non-EECCA countries	453.2		111.0		308.1

Source: The State Committee on Statistics of the Republic of Uzbekistan (www.gov.uz)

C. Data on the State Forest Fund

Table 16
National resources balance sheet, 1992-1997

	1992	1993	1994	1995	1996	1997
Land area (1,000 square kilometers)	447.4	447.7	447.4	447.4	447.4	447.4
Population density (people per square kilometer)	48.5	49.6	50.4	51.4	52.4	53.4
Cultivated land (as % of land area)	10.0	10.0	10.2	10.1	10.1	10.1
Forested and wooded land (as % of land area)	3.0	3.0	3.0	3.0	3.0	3.0
Irrigated land (as % of arable area)	93.0	93.0	94.0	95.0	95.0	95.0

Source: The State Committee on Statistics of the Republic of Uzbekistan

Table 17
Distribution of the total area of the State Forest Fund, 2002
(1,000 ha)

Republic of Karakalpakstan	4,567.1	Samarkand Region	57.3
Andijan Region	3.4	Surkhandarya Region	413.2
Bukhara Region	508.8	Syrdarya Region	7.7
Djizak Region	274.8	Tashkent Region	453.8
Kashkadarya Region	222.1	Fergana Region	21.8
Navoi Region	2,081.5	Khorezm Region	95.1
Namangan Region	68.8		
Total:		8,775.4	

Source: The Main Forestry Department of the Republic of Uzbekistan, 2002.

Table 18

Forecast of afforestation and reforestation activity by the Main Forestry Department of the Republic of Uzbekistan (by the end of 2010, 2025 and 2050)

	Types of measures	Unit	2002	Annual average work volume	Forecast for following periods (cumulative)		
					2003-2010	2011-2025	2026-2050
1	Forest restoration of State Forest Fund As of the end of period – in total:	1,000 ha	42.2	43.2	340.0	985.0	2,072.6
	including:						
	- Creation of protection forests in Aral Sea region	1,000 ha	29.5	29.5	231.0	671.4	1,416.0
	- Creation of the second Bukhara shelterbelt	1,000 ha	5.2	5.2	41.4	119.0	250.0
	- Creation of forests on the lands suitable for forestation	1,000 ha	6.3	7.3	58.0	167.0	349.0
	- Creation of industrial plantations of nut and fruit trees	1,000 ha	0.7	0.7	5.9	17.0	35.5
	- Creation of valuable juniper forest	1,000 ha	0.05	0.06	0.5	1.4	2.9
	- Creation of industrial plantations	1,000 ha	0.4	0.4	3.2	9.2	19.2
2	Planting trees along rivers, water reservoirs, canals.	1,000 ha	-	0.2	1.6	4.8	10.0
3	Creation of protection forests around cities, settlements, production enterprises and recreation zones	1,000 ha	0.6	0.5	4.2	12.0	25.0
4	Creation of shelterbelts along roads and railroads	1,000 ha	-	0.6	5.0	14.5	30.0
5	Planting municipal parks and squares	1,000 ha	-	0.1	0.8	2.3	4.8

Table 18 (concluded)

	Types of measures	Unit	2002	Annual average work volume	Forecast for following periods (cumulative)		
					2003-2010	2011-2025	2026-2050
6	Area of all kinds of created protection forests – total	1,000 ha	0.1	8.4	67.0	194.2	404.6
	including:						
	- Protection plantations in mountains and waste lands	1,000 ha	0.1	0.6	5.0	14.4	30.0
	- Pasture protective shelterbelts	1,000 ha	-	6.2	50.0	144.0	300.0
	- Field protective forest shelterbelts	1,000 ha	0.1	1.5	12.0	35.8	74.6
7	Forest sites for seed production	1,000 ha	7.1	0.5	6.0	11.5	11.5
8	Harvest of forest seeds – total	Tonnes	252.0	252.0	2,016.0	3,780.0	6,300.0
9	Trees planted	Million pieces	35.9	35.5	284.0	532.5	887.5
10	Areas affected by pests and diseases	1,000 ha	24.0	25.1	200.0	580.0	1,205.0
11	Biological control of pests and diseases	1,000 ha	14.0	15.8	120.0	360.0	760.0
12	Thinning	1,000 ha	1.8	1.9	15.0	45.0	95.0
13	Sanitary felling	1,000 m ³	9.0	9.2	72.0	212.0	442.0
14	Forest restoration	1,000 m ³	23.0	23.6	185.0	535.0	1,135.0
15	Creation of forests - total (1+2+3+4+5+6)	1,000 ha	42.9	53.0	418.6	1,212.8	2,547.0
16	Area covered by forest as of the end of period	1,000 ha	2,375.4	92.7	2,715.0	3,360.4	4,448.0

Note: The average annual volume of forest restoration works carried by the Main Forestry Department scheduled for the period of 2003-2010 is 42.5 thousand ha, for 2011-2025 – 43.0 thousand ha and for 2026-2050 43.5 thousand ha. Growth of forest restoration works is equal to 0.5 thousand ha.

The scheduled growth of production volumes of all kinds of forest restoration and forestation activity for the period from 2003-2050 is accepted according to increase of investments from the governmental and private organizations, and also using the experience of other countries in the forestry management (long-term leases, privatization, development of industrial production and use of non-wood products).

In column 5 of Table 18 the average annual volume is calculated as follows: the cumulative total in column 8 is divided by 48 years (2003-2050).

Source: The Main Forestry Department of the Republic of Uzbekistan

Table 19
State Forest Fund lands distribution as to protection categories by the end of 2010,
2025 and 2050

(1,000 ha)

№	Forest Fund lands assigned for:	As of 01.01.02	Forecasted results			Specific gravity by the end of 2050 compared to 01.01.02
			By the end of 2010	By the end of 2025	By the end of 2050	
1	Protection forests along rivers and water reservoirs	62.33	62.53	63.93	67.13	1.07
2	Protection forests in mountains	1713.71	1780.71	1907.91	2118.31	1.2
3	Protective shelterbelts along roads and railroads	98.49	103.49	112.99	128.49	1.3
4	Desert and semi-desert forests	6502.5	6567.0	7292.9	8168.5	1.25
5	Municipal parks and squares	24.83	25.63	27.13	29.63	1.19
6	Forests around cities, settlements and industrial centers	22.7	26.9	34.7	47.7	2.1
7	Forests around recreation zones	5.4	5.9	6.4	6.9	1.27
8	Valuable forest stands	86.68	90.38	97.28	108.08	1.24
9	Nut-tree forests	36.0	41.9	53.0	71.5	1.98
10	Fruit-tree plantations	4.89	62.89	171.89	353.89	72.37
11	Forests in natural reserves	205.5	405.5	455.5	505.5	2.45
12	Forests of scientific or historical importance	12.44	12.94	13.44	13.64	1.09
	Total	8775.47	9185.77	10237.07	11619.27	

Source: Decree of the Cabinet of Ministers No. 163 of 09.04.2001 "About approval of forest distribution as to protection categories in the Republic of Uzbekistan"

Table 20
Poplar plantations created by region, 1994-2002

(1,000 ha)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Karakalpakstan	1,055.0	889.0	627.0	441.1	327.0	200.6	122.4	525.7	108.6
Andijan	610.0	611.0	138.6	12.0	99.7	58.5	1.5	91.6	512.8
Bukhara	455.0	452.0	120.0	16.7	93.8	60.0	-	713.2	115.0
Djizak	452.0	578.0	6.0	164.5	-	27.2	49.0	149.7	83.9
Kashkadarya	529.0	366.0	184.0	185.0	185.7	73.8	36.8	174.6	608.2
Navoi	395.0	156.0	88.0	83.0	10.5	117.0	78.0	121.0	333.2
Namangan	731.0	705.0	690.0	440.0	135.8	37.9	6.3	33.2	90.8
Samarkand	536.0	747.0	746.0	498.0	215.7	461.4	225.5	129.7	460.5
Surkhandarya	301.0	407.0	75.0	200.0	27.5	45.0	18.0	15.2	58.0
Syrdarya	356.0	436.0	80.0	11.0	120.2	312.9	6.1	192.7	470.1
Tashkent	715.0	286.0	128.0	80.0	149.1	29.1	54.2	123.5	408.0
Fergana	584.0	521.0	347.0	253.0	54.0	88.0	15.5	10.5	85.0
Khorezm	582.0	229.0	334.0	-	-	-	-	5.0	121.1
Total	7,301.0	6,383.0	3,563.6	2,384.3	1,419.0	1,511.4	613.3	2,285.6	3,455.2

Source: The Main Forestry Department of the Republic of Uzbekistan

Table 21**Annual harvesting of the Main Forestry Department by region, 2002**(1000 m³)

	Name	Total volume of removed wood	Including:		
			Industrial roundwood	Woodfuel	Branches
1	Republic of Karakalpakstan	11.0	2.7	4.7	3.6
2	Andijan	1.2	0.9	0.2	0.1
3	Bukhara	5.0	0.2	1.5	3.3
4	Djizak	0.9	0.4	0.3	0.2
5	Kashkadarya	1.0	0.3	0.6	0.1
6	Navoi	1.3	0.1	1.2	-
7	Namangan	1.8	1.0	0.6	0.2
8	Samarkand	1.2	0.4	0.7	0.1
9	Surkhandarya	2.5	0.2	0.7	1.6
10	Syrdarya	0.05	0.02	0.02	0.01
11	Tashkent	0.72	0.5	0.2	0.02
12	Fergana	4.8	2.5	2.1	0.2
13	Khorezm	0.58	0.28	0.3	-
	Total:	32.05	9.5	13.12	9.43
	In %:	100	29.6	41.0	29.4

Source: The Main Forestry Department of the Republic of Uzbekistan, 2002

D. Data on production and trade

Table 22**Value of production, 1996-2003**

(\$1000)

	1996	1997	1998	1999	2000	2001	2002	2003
Furniture industry	42,764.7	34,995.6	36,212.4	25,323.2	22,932.9	17,645.8	24,339.7	41,228.6
Pulp and paper industry	19,661.2	16,797.4	16,773.8	16,805.1	14,827.5	16,032.3	17,408.4	22,008.4
Match industry	0	807.7	1,229.6	1,867.8	805.1	345.3	201.3	220.2

Source: The State Committee on Statistics of the Republic of Uzbekistan

Table 23**Average annual prices of manufacturers of construction material, furniture, matchsticks and paper products (without VAT), 1996-2004**

(\$)

	unit	1996	1997	1998	1999	2000	2001	2002	2003	2004
Windows and doors	m ²	36.7	29.9	32.2	21.8	17.9	24.5	24.3	34.4	30.7
Furniture:										
Chair	piece	35.6	25.9	34.2	18.0	10.1	12.8	8.9	18.1	17.6
Bed	piece	27.5	25.2	17.6	8.6	30.0	36.5	40.1	53.1	51.4
Table	piece	51.4	43.5	32.8	37.4	29.9	28.9	24.4	87.9	86.1
Cupboard	piece	77.7	77.8	70.8	52.7	51.8	55.0	51.6	81.3	103.1
Desk	piece	-	-	-	-	26.2	46.3	42.0	59.4	65.7
Matches	1,000 boxes	-	-	-	-	6.2	6.3	6.94	9.28	0
Paper	ton	-	-	-	-	776.0	421.1	783.6	1,277.1	1,243.4
Cardboard	ton	372.5	274.6	202.7	188.1	167.6	203.3	218.4	293.6	402.6
Notebooks	ton	0.08	0.05	0.04	0.03	0.03	0.03	0.02	0.04	0.04

Note: Prices of desk, matchsticks and paper before 2000 are not available.

Source: The State Committee on Statistics of the Republic of Uzbekistan

Table 24
Export of wood and wood products, 1999-2003

Export of woodfuel										
	1999		2000		2001		2002		2003	
	Tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000
Woodfuel	22.1	3.0	0	0	0	0	0	0	1,132.2	13.6
Wood charcoal	0	0	0	0	0	0	0	0	0	0
Export of wood and wood products										
	1999		2000		2001		2002		2003	
	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000
Roundwood total	204.5	14.5	1,196.1	117.7	423.0	53.6	417.4	44.2	740.0	77.8
Industrial roundwood	0	0	0	0	0	0	0	0	34.8	15
Sleepers / rail read ties	0	0	0	0	0	0	275.9	0.9	56.7	1.2
Processed sawnwood	2.3	4.2	143.6	19.1	59.0	4.4	1,492.1	149.1	8.3	35.2
Veneer sheets	0	0	0	0	3,000.0	15.1	0	0	4.5	0.4
Sawnwood	16.2	0.9	91.3	25.3	24.3	1.8	236.1	206.3	97.5	32.7
Hardboard	0	0	351.9	6.6	56.6	19.7	520.8	118.6	204.6	55.2
Fibreboard	0	0	11.6	1.9	6.4	1.1	233.8	20.7	0.9	2.7
Plywood	524	4.8	40.0	0.1	0	0	2,315.5	57.2	2,063.0	44.9
Case materials	223.1	89.6	1,479.7	98.2	214.8	22.2	48.4	36.3	41.0	65.9
Construction articles	3.4	2.7	25.9	17.7	18.0	11.7	23.0	17.9	0.3	9.7
Other wooden articles	0.8	1.1	7.1	10.9	4.2	5.0	0	0.1	11.5	0.3
Export of woodpulp										
	1999		2000		2001		2002		2003	
	tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000
Pulp from fibres other than wood	0	0	0	0	0.3	1.2	333.2	227.3	0	0

Table 24 (Concluded)

Export of paper products										
	1999		2000		2001		2002		2003	
	tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000	tons	\$1,000
Recovered paper	0	0	10	0.2	0	0	0	0	0	0
Newsprint	0	0	16.3	5.2	0	0	0	0	0	0
Paper and paperboard, uncoated	159.8	400.9	310.6	573.1	446.8	1,004.8	622.8	1309.3	509.3	1315.6
Sanitary and household papers	0.1	0.1	35.7	25.4	0	0	0	0	2.7	3
Packaging paper and paperboard	0	0	0	0	52.0	16.9	385.8	108.6	0	0
Packaging paper and paperboard uncoated	49.2	21.6	99.0	47.9	377.6	185.5	839.7	274.2	2033.8	544.5
Grease-proof paper, tracing paper, etc.	0	0	0.3	2.3	0.1	0.2	0	0	0	0
Paper and paperboard multilayer	89.0	32.3	0.5	0.3	2.3	0.4	0	0	0	0
Folding boxboard	39.2	33.3	0	0	481.2	203.5	525.2	187.1	143.2	83.0
Graphic papers	0	0	0	0	0	0	0	0	0	0
Paper and paperboard, coated	0	0	0	0.3	0.6	1.2	0	0.1	0.1	0.3
Other paper and paperboard	0	0	10.2	1.4	10.1	2.2	3.7	1.5	3.6	3.1

Source: The State Committee on Statistics of the Republic of Uzbekistan

Table 25

Imports of wood and wood products to Uzbekistan, 1999-2003

Import of charcoal										
	1999		2000		2001		2002		2003	
	tonnes	\$1,000	Tonnes	\$1,000	tonnes	\$1,000	tonnes	\$1,000	tonnes	\$1,000
Wood charcoal	15.6	2.4	0	0	0	0	0.5	0.9	1.0	3.7
Import of woodfuel										
	1999		2000		2001		2002		2003	
	m ³	\$1,000	m ³	\$1,000	M ³	\$1,000	m ³	\$1,000	m ³	\$1,000
Woodfuel	3,000.1	107.5	11,185.2	373.9	312.2	18.2	208.1	10.2	0.4	0.1
Import of wood and wood products										
	1999		2000		2001		2002		2003	
	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000	m ³	\$1,000
Roundwood total	87,189.9	5,006.0	61,152.7	5,982.6	64,494.2	3,010.4	49,850.5	2,264.7	233,611.3	5,328.2
Industrial roundwood	45.6	3.2	55.9	5.1	0	0	0	0.2	0	0
Sleepers / rail read ties	23,512.9	2,318.7	13,476.9	2,405.2	34,762.7	74,938.2	13,522.2	2,009.1	6,331.0	943.3
Processed sawnwood	90,123.5	22,327.1	294,552.0	10,844.3	250,019.7	11,467.0	272,229.1	13,174.2	6,635.4	25,860.9
Venner sheets	144.7	146.3	20,351.1	190.9	87.44	48.2	58.2	39.7	110.7	54.1
Sawnwood	11,331.0	1,050.6	34,181.6	1,670.5	3,896.6	341.1	1,395.9	273.6	2,038.6	448.0
Hardboard	55,518.4	7,803.7	250,747.4	8,911.9	14,693.8	6,576.3	122,212.6	6,891.7	81,267.7	9,642.7
Fibreboard	83,545.5	4,019.3	282,508.2	3,556.9	87,089.6	4,140.3	143,897.1	5,022.7	202,250.8	8,070.2
Plywood	3,460.5	1,186.6	20,141.0	1,143.6	3,581.2	1,020.1	4,305.2	1,134.8	68,793.2	2,773.3
Case materials	1,654.8	132.5	1,223.1	97.0	1,648.0	168.2	1,998.5	299.5	3,455.4	418.0
Construction articles	2,097.1	3,422.0	1,336.3	1,076.9	4,636.2	845.4	964.5	1,251.8	20.8	2,316.6
Other wooden articles	885.8	614.1	4,127.3	1,102.0	551.3	767.2	654	358.9	13,512.4	464.5

Table 25 (concluded)

Import of woodpulp

	unit	1999		2000		2001		2002		2003	
		quantity	\$1,000	quantity	\$1,000	quantity	\$1,000	quantity	\$1,000	quantity	\$1,000
Woodpulp, dissolving grades	kg 90%*	320.0	47.1	54,575.6	110.7	40,894.0	41.6	0	0	554,168.0	487.2
Woodpulp sulphate	kg 90%	2,407,443.0	1,599.0	904,092.0	605.8	1,925,299.0	1,286.3	1,437,704.0	947.5	407,787.0	237.7
Woodpulp sulfite	kg 90%	0	0	365,338.3	351.1	528,247.7	446.2	213,285.6	123.8	116,607.0	67.0
Pulp from fibres other than wood	kg 90%	0	0	0	0	0	0	0	0	1,036.0	298.8
Pulp from fibres other than wood	tons	0	0	97.7	97.7	175.4	245.6	224.7	314.6	0	0

Import of paper products

	1999		2000		2001		2002		2003	
	tonnes	\$1,000	tonnes	\$1,000	tonnes	\$1,000	tonnes	\$1,000	tonnes	\$1,000
Recovered paper	326.1	44.5	1,044.8	213.6	4,695.8	867.1	5,967.5	615.3	4,777.6	669.0
Newsprint	7,148.9	5,407.5	6,154.7	4,143.9	7,776.2	5,366.9	9,212.8	4,600.0	12,021.3	5,996.2
Paper and paperboard, uncoated	4,777.3	6,125.7	11,238.1	9,839.2	12,532.8	14,502.2	10,087.7	9,079.4	13,265.2	10,402.9
Sanitary and household papers	155.5	165.9	215.6	217.3	150.4	177.3	103.8	99.0	188.6	189.6
Packaging paper and paperboard	2,432.2	1,693.2	2,095.6	1,656.1	2,121.8	1,661.5	2,033.2	1,471.2	1,776.6	1,273.3
Packaging paper and paperboard uncoated	1,322.4	1,006.4	1,872.2	957.2	2,562.7	1,654.7	3,071.4	1,679.6	3,183.3	2,037.8
Greaseproof paper, tracing paper, etc.	166.9	630.6	127.4	222	61.6	263.9	39.2	340.6	96.5	197.8
Paper and paperboard multilayer	240.9	166.6	42.4	23.1	184	34.3	116	67.6	194.3	99.6
Folding boxboard	45.9	54.7	94	105.8	119.3	195.5	162.1	228.8	100.0	105.3
Graphic papers	43.9	215.3	28.6	309.6	1.4	6.6	10	25.9	37.2	88.4
Paper and paperboard, coated	1,830.1	3,771.2	1,633.2	5,737.6	2,004.7	3,187.2	2230	2251	4,417.7	4,245.2
Other paper and paperboard	763.9	3,588.2	761	2,828.7	532.6	2,601.4	1,055.1	4,977.1	981	4,099.2

Source: The State Committee on Statistics of the Republic of Uzbekistan

* Kilograms at 10 per cent moisture content

ANNEX III: FIGURES AND CHARTS

Figure 17

Social and economic indicators

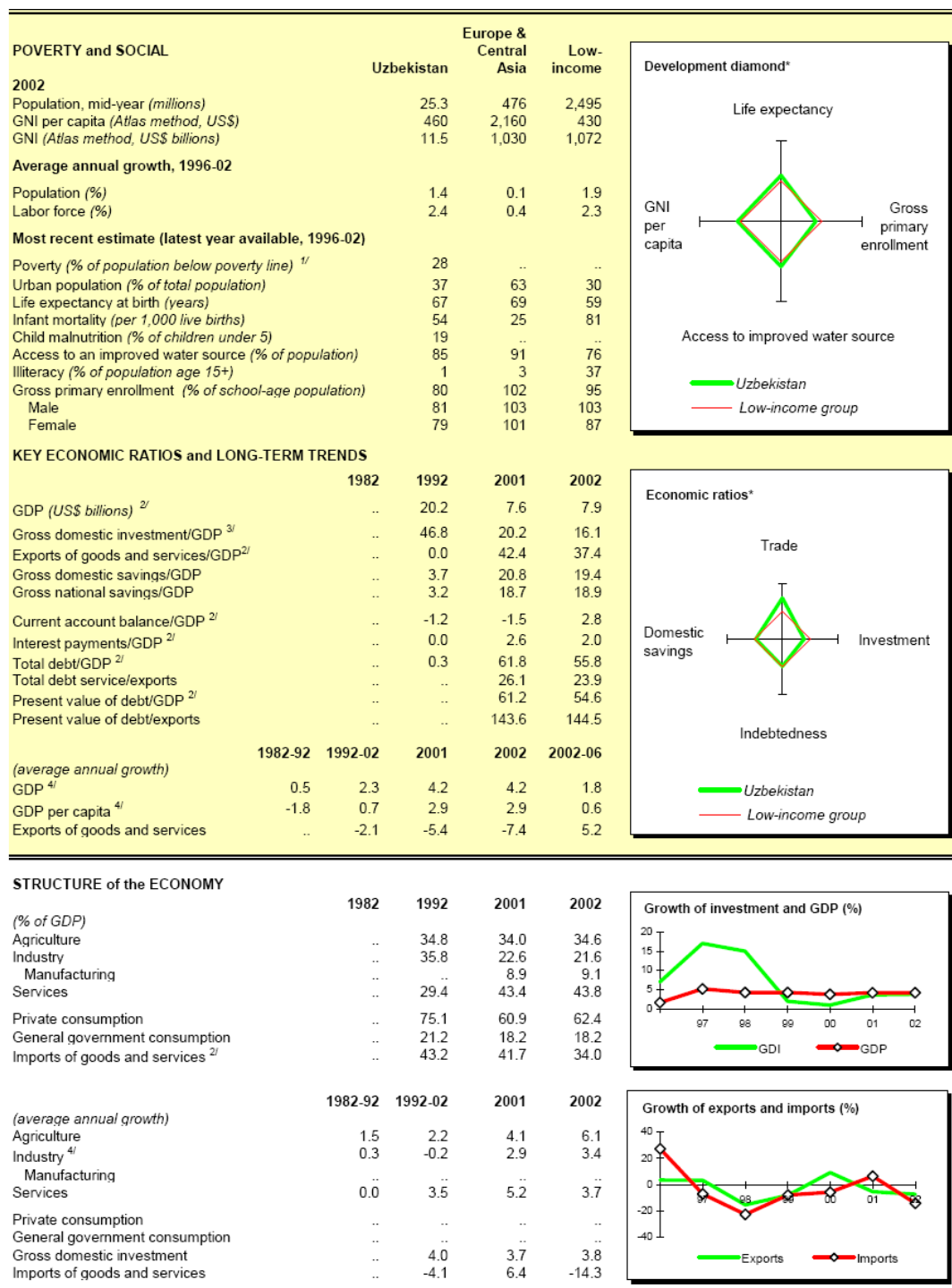
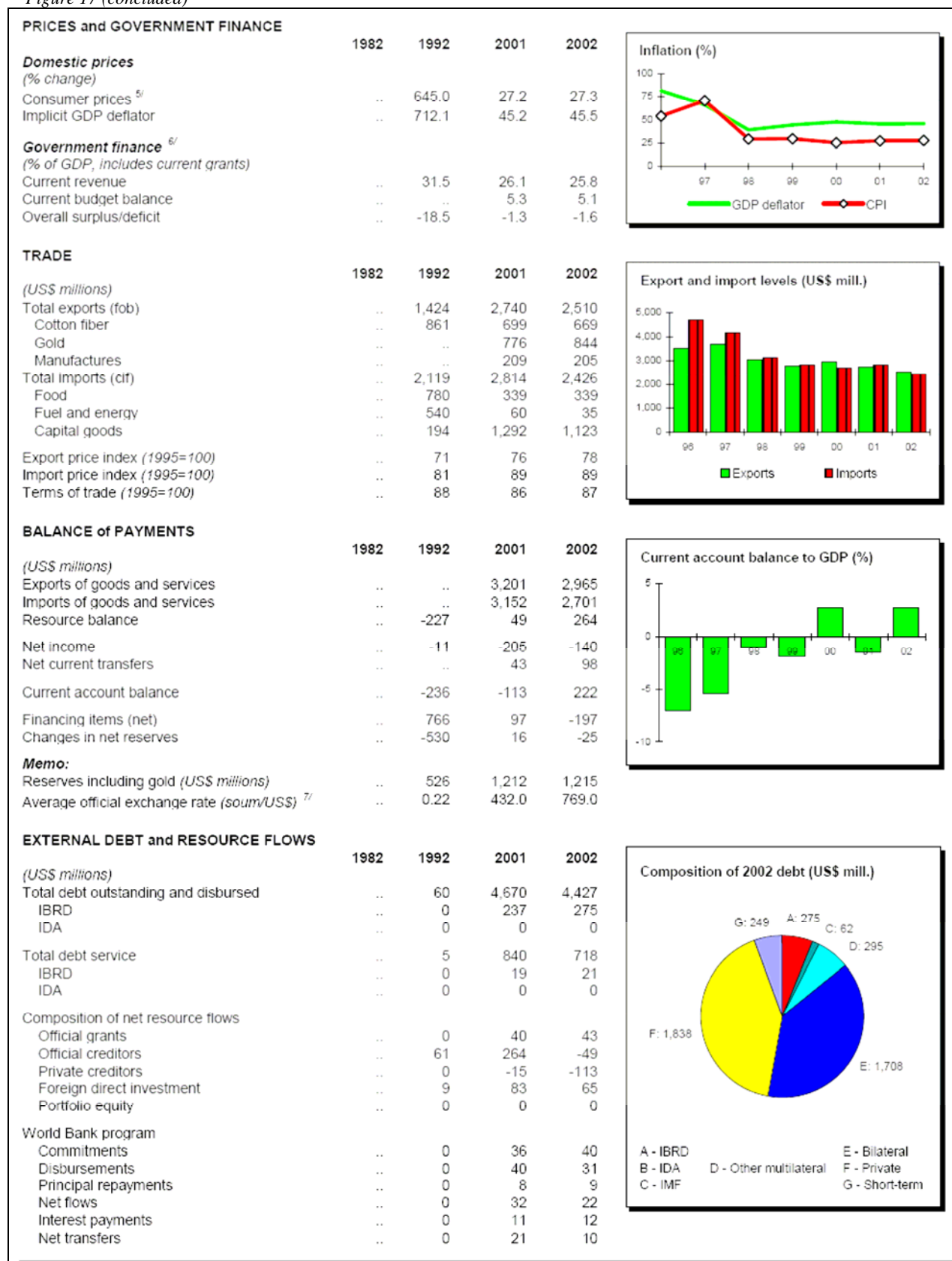
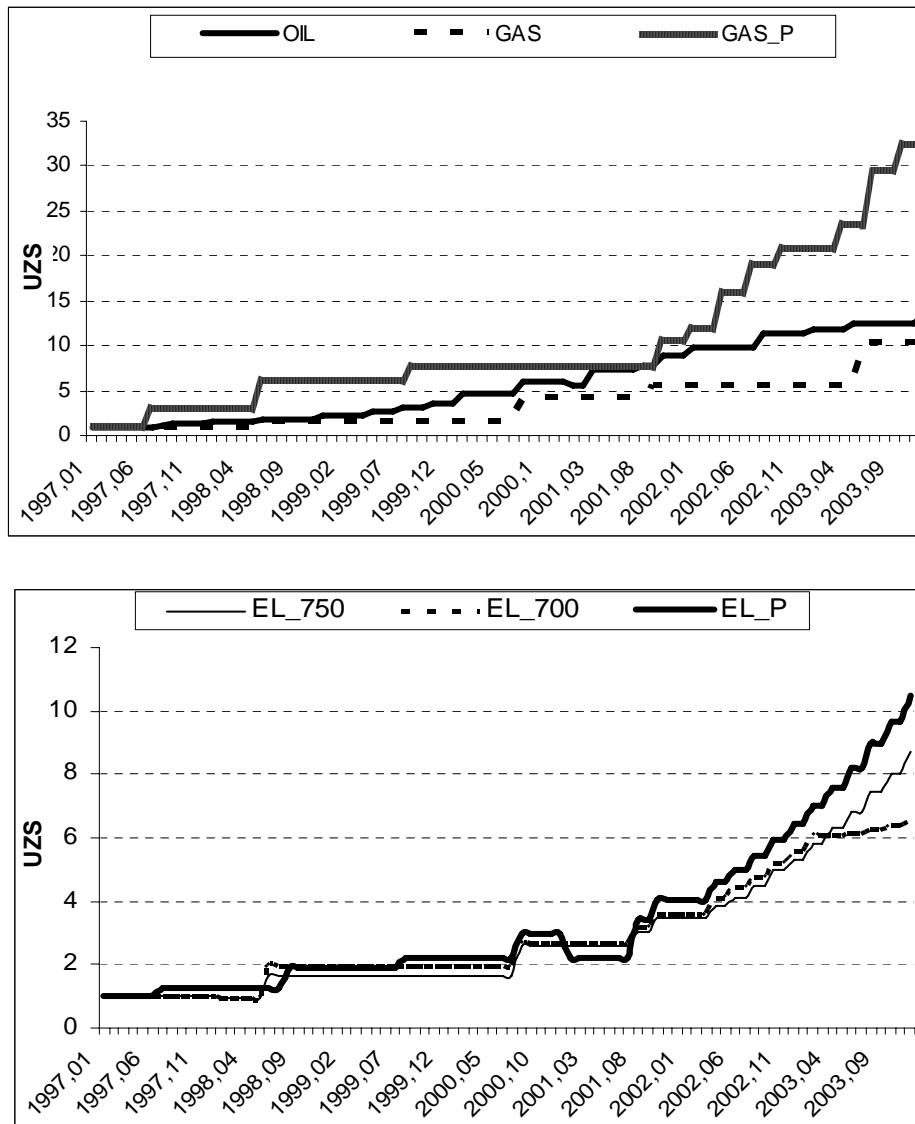


Figure 17 (concluded)



Source: World Bank: Uzbekistan at a glance (22.08.2003)

Figure 18
Energy prices by source, 1997-2003



OIL – prices for petrol (UZS/l)

EL_750 – price for electric power (UZS/KWh for enterprises over 750 KW)

EL_700 – price for electric power (UZS/KWh for enterprises under 750 KW)

EL_P – price for electric power for population (UZS/KWh)

GAS – price for gas (UZS/1,000 m³ for enterprises)

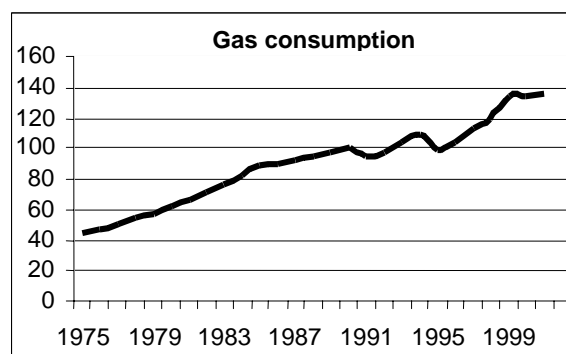
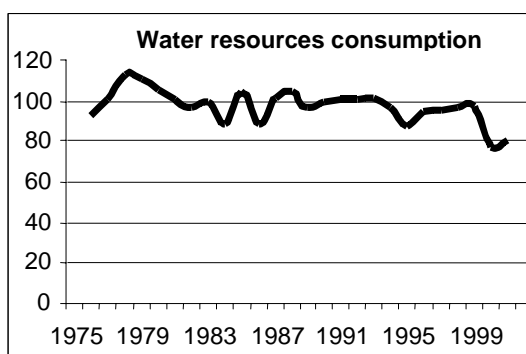
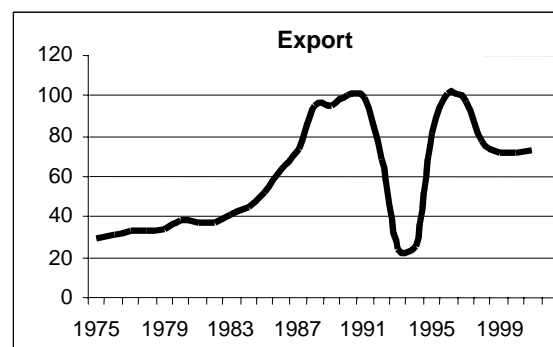
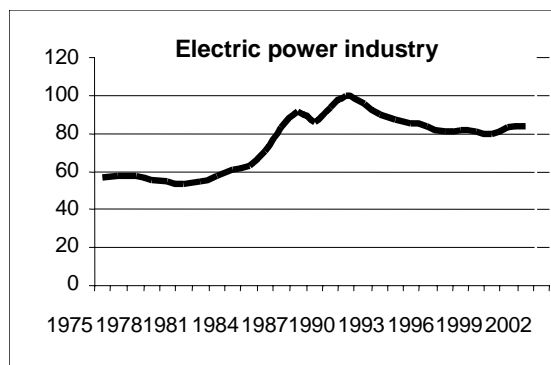
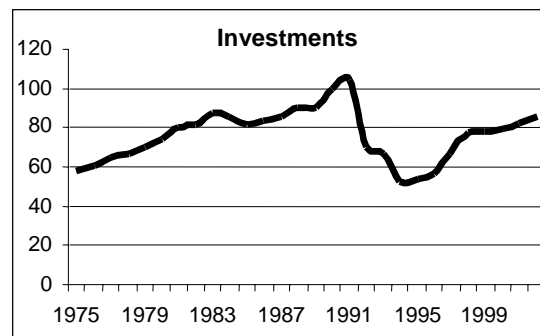
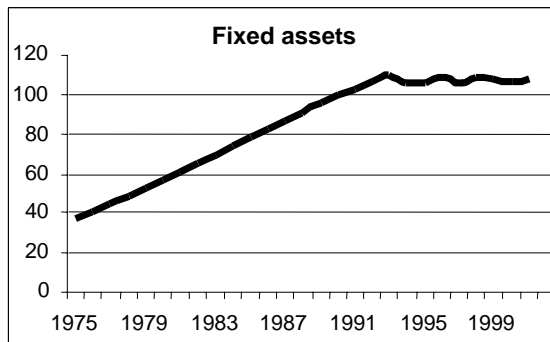
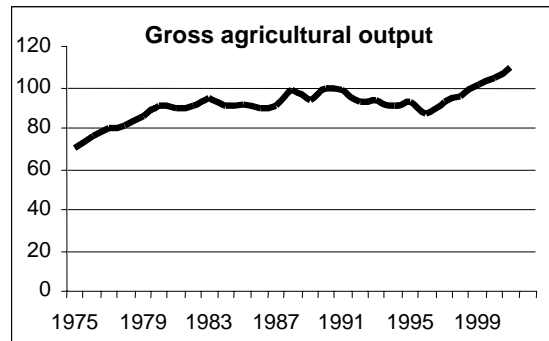
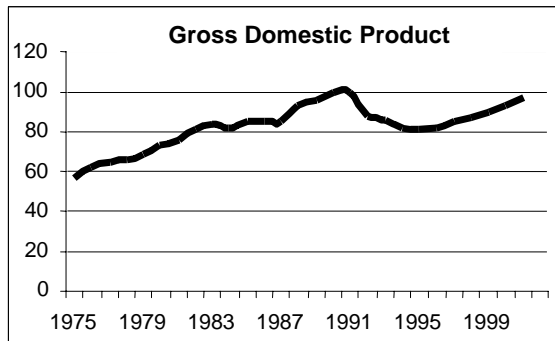
GAS_P – price for gas (UZS/1,000 m³ for population)

Source: Ministry of Macroeconomic Statistics

Figure 19

Macroeconomic indicators, 1975-1999

Index (1991 = 100)



Sources: Statistical Book "National Economy of Uzbekistan", through 1990; Ministry of Macroeconomic Statistics, 1991-2002

Figure 20
Forest distribution

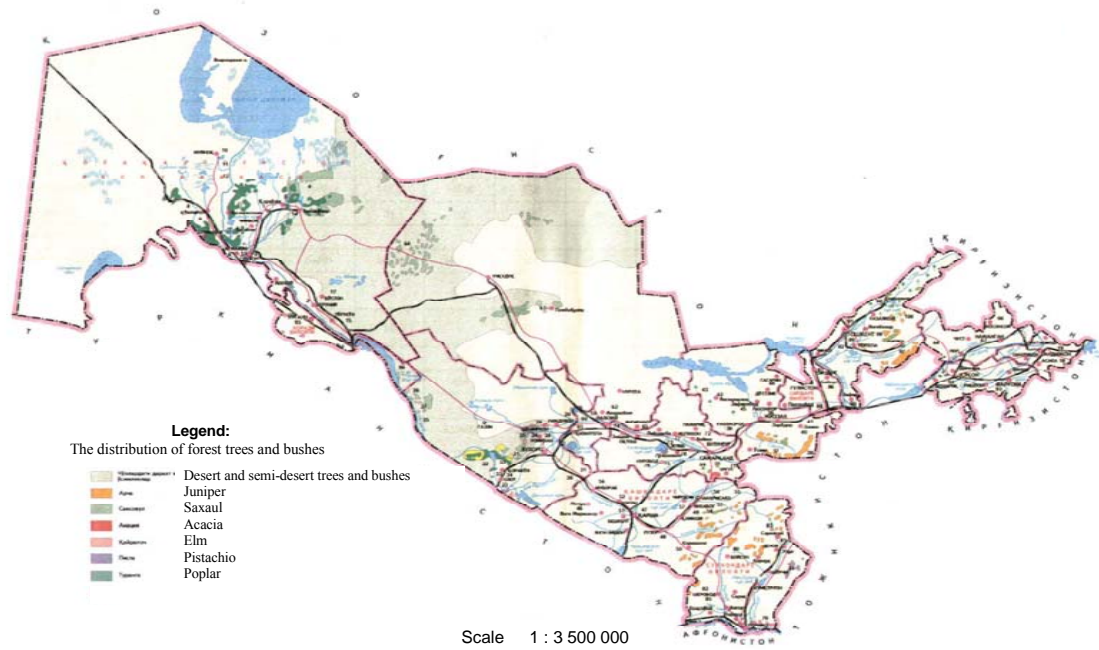
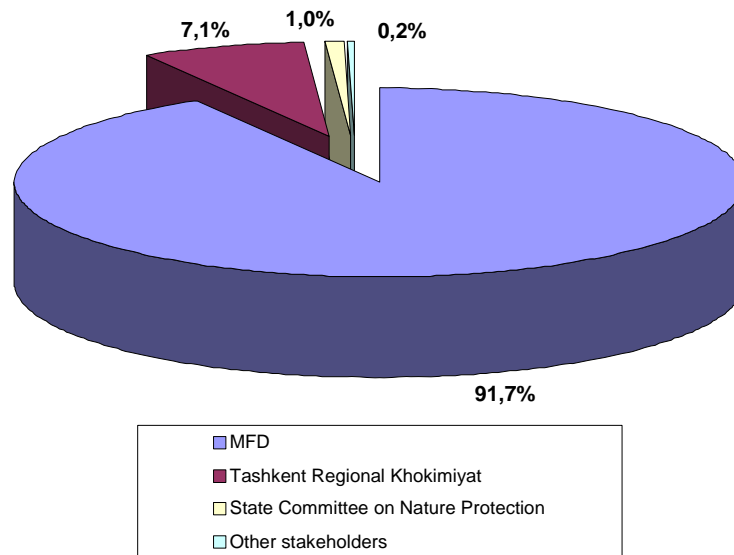


Figure 21**Distribution of Forest Fund lands of the Republic of Uzbekistan by main stakeholders, 2004**

Source: The Main Forestry Department

Figure 22**Wood and woodfuel removals in 2002**(1,000m³)

Note: See details in Table 21

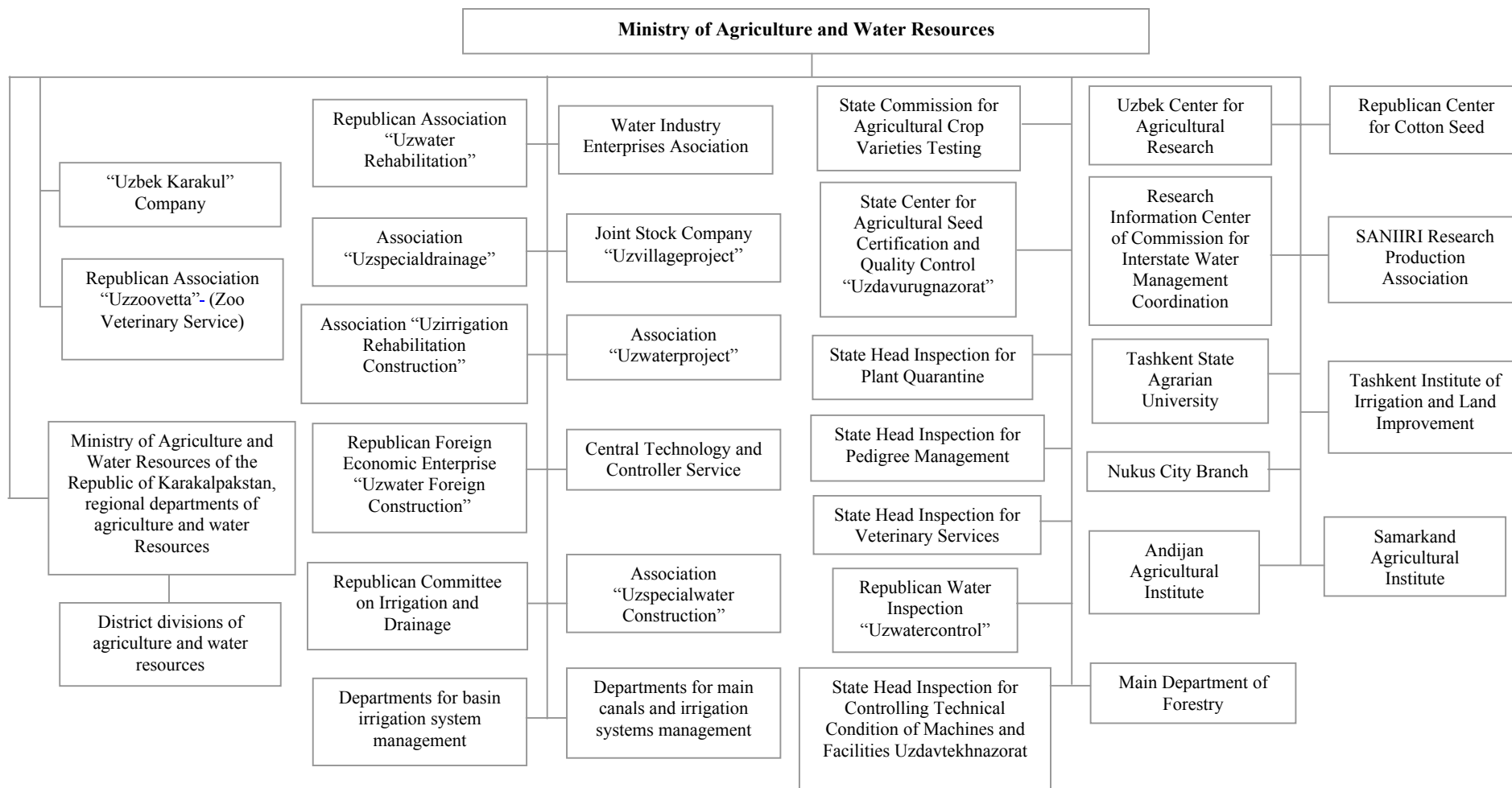
Source: Main Forestry Department

ANNEX IV: SUPPLEMENTARY INFORMATION ON FORESTRY AND FOREST INDUSTRIES

A. Government bodies dealing with forest and forest industries sector

Figure 23

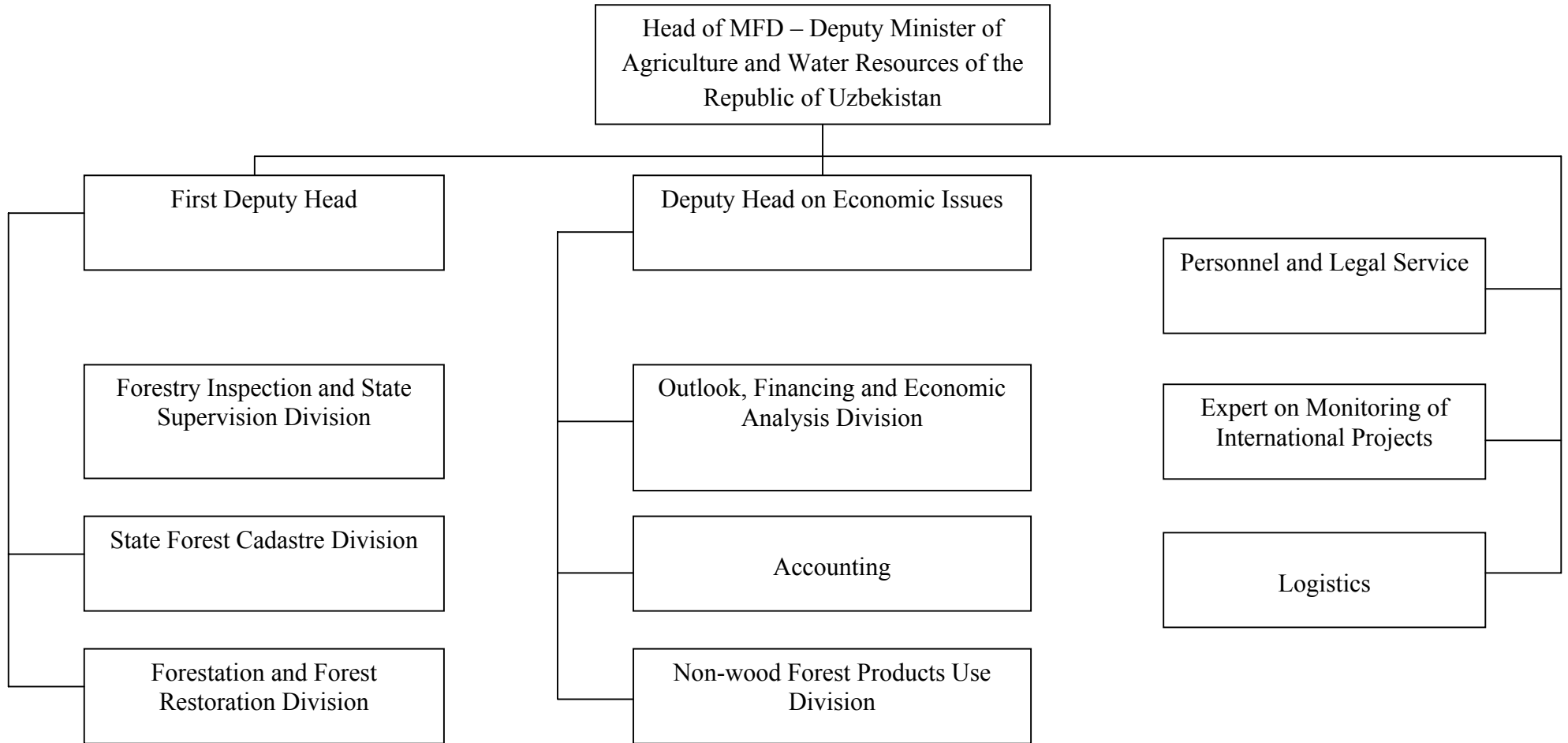
The organizational structure of agencies and companies under the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan



Source: Ministry of Agriculture and Water Resources of the Republic of Uzbekistan

Figure 24

Structure of the Main Forestry Department

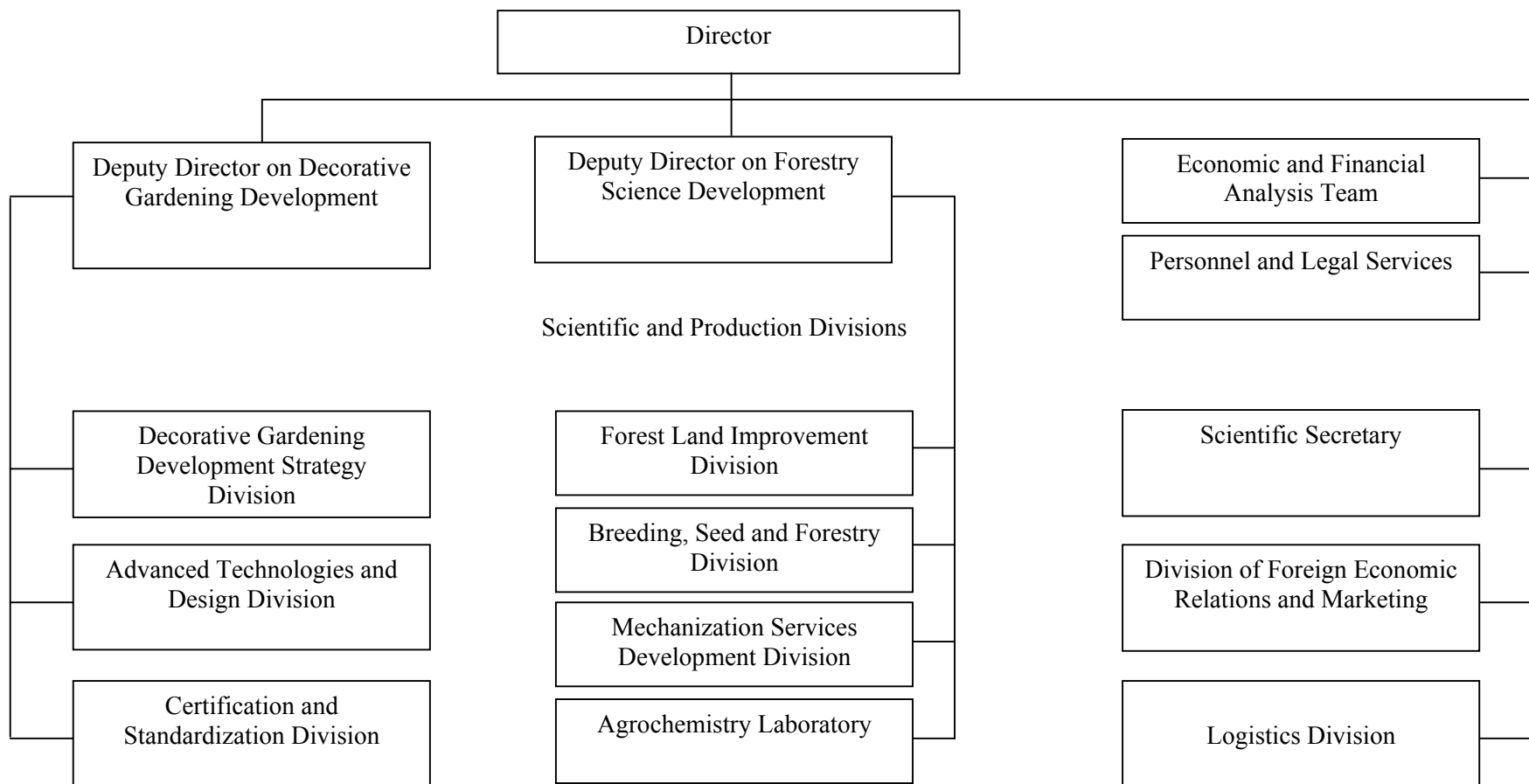


Total: 37 people

Source: Main Forestry Department

Figure 25

Administrative Structure of the State Scientific Production Center on Decorative Gardening and Forestry

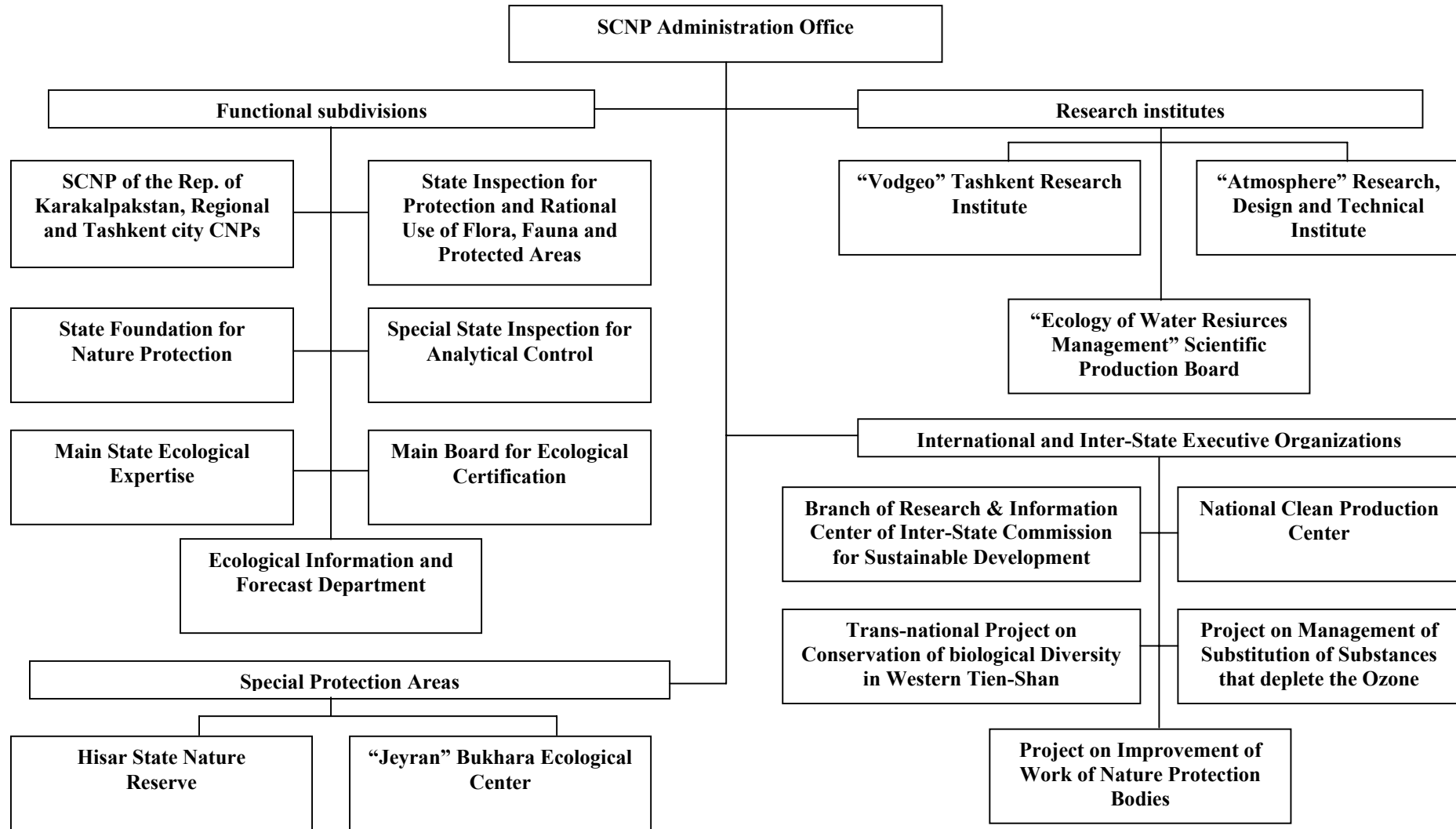


Total: 64 people.

Source: State Scientific Production Center on Gardening and Forestry

Figure 26

State Committee for Nature Protection of the Republic of Uzbekistan



Source: State Committee for Nature Protection

B. Universities, research institutes, planning institutes and other institutions

There are currently 63 educational institutions awarding higher degrees in Uzbekistan.

Table 26

Educational institutions awarding higher degrees in Uzbekistan

Number of Institutions	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	54	55	55	57	58	60	60	61	61	61	63
In Tashkent	25	26	26	27	27	28	28	29	29	29	31
Universities and institutes											
Technical	Economic	Humanities	Pedagogical	Medical	Agricultural	Specialized	Branch of the Academy named after Plekhanov	International Westminster University in Tashkent			
14	3	15	6	7	4	12	1	1			

Source: Ministry of Higher and Secondary Specialized Education

According to the “Education” law of the Republic of Uzbekistan, since 1998 two levels of higher degrees are awarded – Bachelors and Masters. Admission of students to higher educational institutions is realized through State grants and contracts.

In the academic year 2002/2003, the number of students in educational institutions reached roughly 222,000, with 42,220 graduating.

Post-graduate programmes and refresher courses for specialists are conducted in many institutes, and are sponsored by the Government.

Research in Uzbekistan is done in 362 different institutions.

Table 27

Research

Scientific research institutes	Scientific research subdivisions of the educational institutions	Project design organizations	Research and production associations and experimental enterprises	Information computing centres
101	55	65	32	30

Source: State Committee on Statistics

The center of scientific potential is the Academy of Sciences of the Republic of Uzbekistan. It is a leading scientific and experimental center for the region, which has more than 50-year history. In its structure are such unique scientific centers as:

- The Institute of Nuclear Physics
- The research-and-production association, “Physics-Sun”
- The research-and-production association, “Botanika”

- The complex of high mountain astronomical observatories on Maydanak Mountain, etc.

About 46,000 people are working in scientific fields, including 2,800 doctors and approximately 16,100 students of sciences. In 1991, the High Attestation Commission of the Republic of Uzbekistan was established. Preparation of highly qualified scientific personnel are carried out in 20 areas of science.

Results of more than 600 scientific studies have been made in different spheres of the economy. More than 620 patents for inventions have been received, and more than 600 monographs and 24,639 scientific articles in the foreign and Uzbek press were published during the period 1998-2002.

Table 28

Number of graduate students and PhD candidates, 1998-2002

	Entered				
	1998	1999	2000	2001	2002
PhD candidates	61	70	43	76	49
Graduate students	599	654	396	392	365

Source: Ministry of Higher and Secondary Specialized Education

Educational expenditures in the State budget are growing continuously. According to forecasts, in 2005 expenditures will be UZS 248 billion. Expenses are based on the real growth of GDP, i.e. 4.5 per cent in 1999 and 5 per cent in 2000. With the growth of GDP and volume of state expenses (about 36% from GDP) expenses for education total about 8-11 per cent of GDP. More than UZS 25.6 billion were put in the budget for the Ministry of Higher and Secondary Specialized Education (MHSSE) for the year 2002.

Table 29

Expenditures on education

(in million. Uz. Sum)

	1997	1998	1999	2000	2001	2002
Expenses from the State budget	2651.9	5355.3	7194.9	11213.1	17017.9	25606.4
Including:						
Expenses for the development of textbooks and educational material	27.8	60.2	82.6	166.7	422.6	1485.5

Source: Ministry of Higher and Secondary Specialized Education

During this period of economic reform in Uzbekistan, the ability of educational institutions to attract non-budgetary funds played an important role in their activities. Ministries and educational institutions are continually working on expanding methods of finding extrabudgetary education funds. The amount of extrabudgetary funds in MHSSE in 2002 was more than UZS 27.7 billion.

Table 30
Extrabudgetary education funds
(in million UZS)

	1997	1998	1999	2000	2001	2002
Extrabudgetary funds	1422	2575.7	4843.3	9050	16374.8	27741.4
including:						
- for preparing specialists on contract base	1047	1964.3	4145.7	7820.7	14543.4	25053.3
- for carrying out scientific and construction work	63.2	93.9	110.3	142	187	254.2
- for services	311.8	517.5	587.3	1087.3	1644.4	2433.9

Source: Ministry of Higher and Secondary Specialized Education

International organizations, financial institutions, and the Governments of developed countries provide financial and technical assistance for reform of the educational system in Uzbekistan, including the World Bank, Asian Development Bank, the German Center for Technical Assistance (GTZ), Technical Assistance for Commonwealth of Independent States (TACIS) and the United States Agency for International Development (USAID). There is also wide scale assistance in terms of investments, projects and grants. For instance, foreign investments totaling \$5.8 million were obtained in 2002.

Information About the Timber Committee

The Timber Committee is a principal subsidiary body of the United Nations Economic Commission for Europe UNECE which is based in Geneva. The Committee provides a forum for cooperation and consultation between UNECE member States on forestry, the forest industry and forest product matters. All the countries of Europe, the former USSR, the United States of America, Canada and Israel are UNECE member countries and participate in its work.

The UNECE Timber Committee, within the context of sustainable development, provides member countries with the information and services needed for policy- and decision-making regarding their forest and forest industry sector (“the sector”), including the trade and use of forest products and, when appropriate, formulates recommendations addressed to member Governments and interested organizations. To this end, it:

1. Undertakes, with the active participation of member countries, short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collects, stores and disseminates statistics relating to the sector, and carries out activities to improve their quality and comparability;
3. Provides the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between Governments and other institutions of member countries that is needed for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carries out tasks identified by the UNECE and/or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of countries of the region that are developing from an economic point of view;
5. Regularly reviews its structure and priorities and cooperates with other international and intergovernmental organizations active in the sector, in particular with the Food and Agriculture Organization of the United Nations (FAO) and its European Forestry Commission (EFC) and with the International Labour Organization (ILO) in order to ensure complementarities and to avoid duplication, thereby optimizing the use of resources. The Timber Committee’s work programme is fully integrated with that of the EFC. The integrated work programme of the Timber Committee and the EFC has five work areas: (a) Markets and statistics; (b) forest resource assessment and indicators of sustainable forest management; (c) sector outlook studies; (d) social and cultural aspects of forestry; and (d) policy and cross-sectoral issues.

More information about the Committee's work may be obtained by writing to:

UNECE/FAO Timber Section
Trade and Timber Division
United Nations Economic Commission for Europe
Palais des Nations
CH - 1211 Geneva 10, Switzerland
Fax: + 41 22 917 0041
E-mail: info.timber@unece.org
<http://www.unece.org/trade/timber>

UNECE/FAO
Publications

Forest Products Annual Market Review, 2005-2006**ECE/TIM/SP/21**

Note: Other market related publications and information are available in electronic format from our website.

Please note that the Timber Bulletin series has been discontinued. The above publication is now issued under the Geneva Timber and Forest Study Paper series.

Geneva Timber and Forest Study Papers

European Forest Sector Outlook Study: 1960-2000-2020, Main Report	ECE/TIM/SP/20
Forest policies and institutions of Europe, 1998-2000	ECE/TIM/SP/19
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Forest and Forest Products Country Profile of Uzbekistan

Forest and Forest Products Country Profile of Uzbekistan, prepared by a national expert, contains information about the forest resources of the country and a description of the status, trends and developments taking place in the forest and forest products sector as a whole. It focuses on forestry activities over the past decade, i.e. 1995-2005, with a brief overview of the historical and geographical background. For the forest sector, as for other branches of the Uzbek economy, this period was heavily influenced by reforms resulting from the change from a centrally planned to a market economy, and additionally by efforts to achieve sustainable forest management. The profile contains statistical data – tables, diagrams and graphs and a brief analysis of the evolution of the forest sector as well as data for the principal categories and volumes of goods and services in the sector. Chapters include those on forest resources, the wood-processing industry, trade, prices and institutions as well as conclusions with an outlook for the forest sector. Most data are from the government statistical service of Uzbekistan, though data from research bodies and statistics from NGOs have also been used.

The UNECE Timber Committee and the FAO European Forestry Commission

Further information about forests and forest products, as well as information about the UNECE Timber Committee and the FAO European Forestry Commission, is available at: www.unece.org/trade/timber. Information about the UNECE may be found at www.unece.org, and information about FAO at: www.fao.org.

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Trade and Timber Division
United Nations Economic Commission for Europe
Palais des Nations
CH-1211 Geneva 10, Switzerland
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