

**ENSURING SUSTAINABILITY OF FORESTS AND  
LIVELIHOODS THROUGH IMPROVED  
GOVERNANCE AND CONTROL OF ILLEGAL  
LOGGING FOR ECONOMIES IN TRANSITION**



**Working Document – Uzbekistan  
for  
The World Bank**

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**ABBREVIATIONS AND ACRONYMS**

%	percent
CITES	Convention on International Trade in Endangered Species
COFUTIS	Centre Opérationnel Franco-Ouzbek pour le Traitement des Images Satellitaires
FAO	Food and Agriculture Organization of the United Nations
FOWECA	Forestry Outlook Study for Western and Central Asia
FRA	Forest Resources Assessment
GTZ	German Society on Technical Cooperation
ha	hectare
m <sup>3</sup>	cubic meter
MAWR	Ministry of Agriculture and Water Resources of Uzbekistan
MFD	Main Forestry Department
NFP	National Forest Program
NGO	non-governmental organization
SCNP	State Committee on Nature Protection
TACIS	European Union's Technical Assistance to CIS Countries
UNDP	United Nations Development Program
USA	United States of America
USD	United States Dollar
UZS	Uzbek sum (national currency)

**EXCHANGE RATE**

	UZS/USD
1997	157
1998	247
1999	581
2000	371
2001	396
2002	761
2003	965
2004	1 015

## 1. INTRODUCTION

The main feature of the forestry sector in Uzbekistan is that forests have primarily protective, water-saving and sanitary functions. They protect agricultural lands and settlements from water and wind erosion, prevent occurrence of mudflows, and fix moving sands. In addition, forests in Uzbekistan have great importance by supplying local population with wood for house construction and manufacture of furniture, as well as non-wood products, such as nuts, fruit, medicinal plants and fodder.

Uzbekistan is a country with low forest cover. The area of forests in the country was reduced to 20-25% from the beginning of 20th century. The total area of the state forest fund now is 8.6 million ha. The area of the forestlands totals 4.7 million ha, of which 3.3 million ha is covered by forests.

**Table 1.1 Forested Land in Uzbekistan**

Category of forested land	1990	2000	2004
	1 000 ha		
Forests	1 673	2 798	2 751
Forest plantations	222	413	564
Sparse forest stands	1 306	1 595	731
Forest nurseries	1	1	1
Uncovered by forest	1 782	2 159	702
<b>Total</b>	<b>4 984</b>	<b>6 963</b>	<b>4 750</b>

Source: FRA 2005 Country Report.

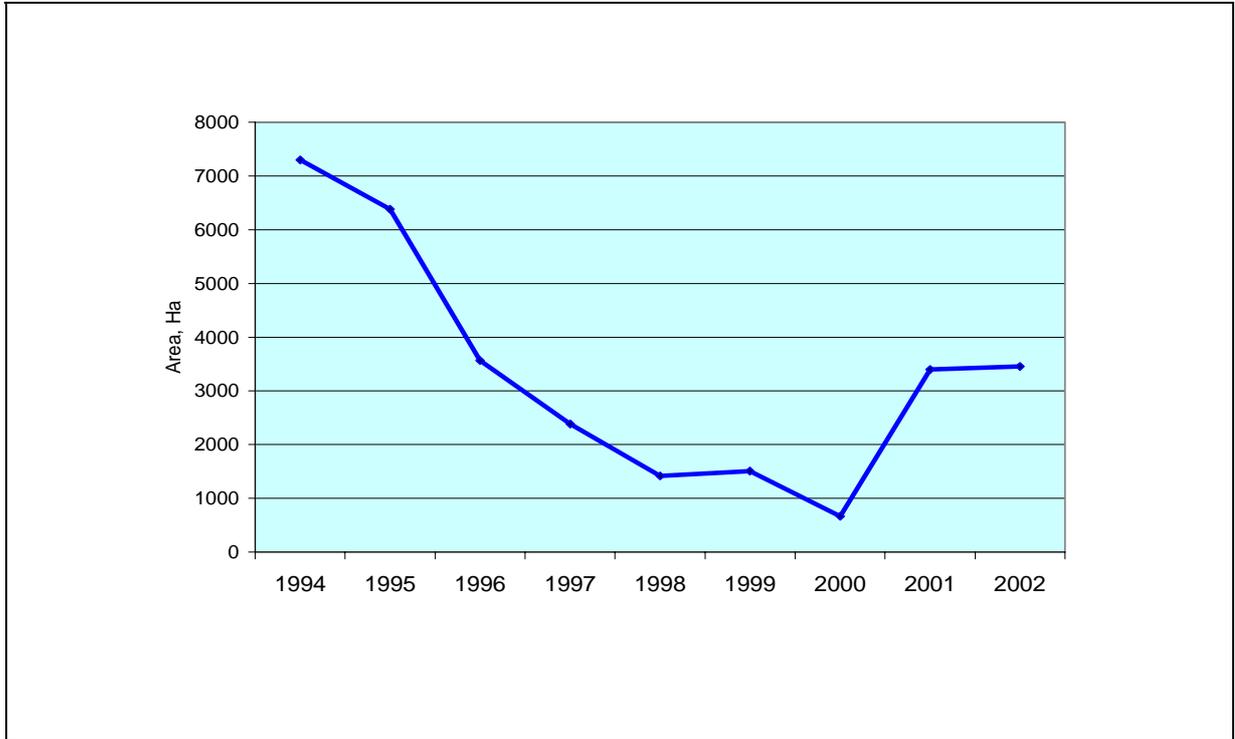
Forest and woodlands are unevenly distributed within the territory of the country. According to the Main Forestry Department, natural vegetation currently occupies 84.1% of desert and semidesert areas and 14.3% of mountains. In the valleys and floodplain areas, which originally were well covered by forests and woodlands, only 1.6% of the forest cover remains. Small segments of riparian forests (*tugai*) are still located along large rivers. 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 decreased by more than 90 percent. Mountain forests have still quite large coverage. Desert shrubs and other vegetation that grow mostly on sandy soils are very important for the protection of sands from wind erosion and improvement of the continental desert climate. The largest areas of steppe/desert shrublands are located in Bukhara Region and Karakalpakstan; there are also smaller dispersed areas in Surkhandarya, Khorezm, and Syrdarya Regions, and Fergana valley (Figure 1.1).

The main species of mountain forests is juniper (*Juniper seravschanica*, *J. semiglobosa*, *J. turkestanica*). Other areas of forests in the mountain zone comprise a wide range of broad-leaved and bush species: *Juglans spp.*, *Ulmus spp.*, *Acer spp.*, *Acacia spp.*, *Salix spp.*, *Fraxinus spp.*, *Betula spp.* Forests of the deserted zone represent thickets of saxaul (*Haloxylon spp.*) with other bushes. Inundated forests - in the past impassable tugai jungle of endemic poplars (*Populus diversifolia*, *P. alba*, *P. pyramidalis*, *P. nigra*, *P. bolleana*, *P. bachofenii*, *P. Uzbekistanica* and others, and their hybrids) and various bushes. In the riparian zone the forests consist mainly of plantations of the tree species introduced to Uzbekistan from other countries.



existing plantations, in the reduction of poplar plantation area. The total area of poplar plantations decreased from 7 301 ha in 1994 to 3 455 ha in 2002 (Figure 1.2). The existing industrial plantations of poplar were made mainly from the French hybrids of poplars and due to improper care they are strongly affected by trunk cancer caused by fungi.

**Figure 1.2 Area Planted with Poplars**

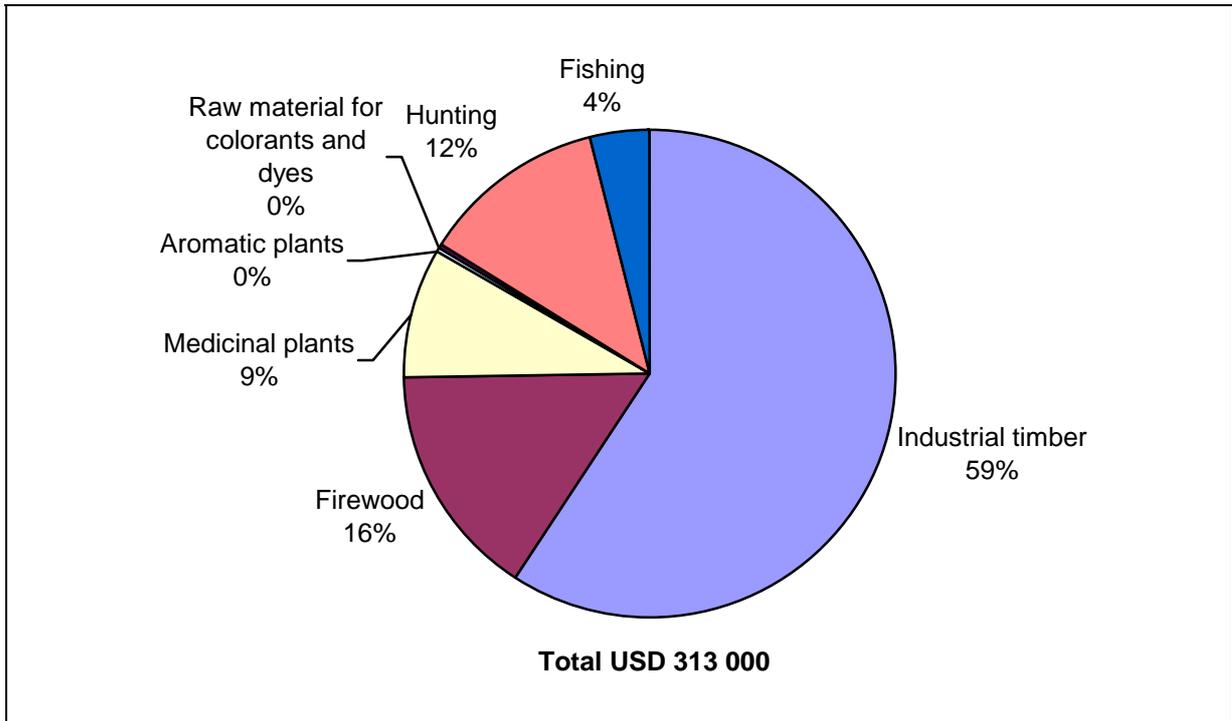


In some forestry enterprises, the harvesting of non-wood products is the main source of income. The most important activity is harvesting and processing of fruit, beekeeping and collection of nuts. The forestry enterprises also generate profits from the sale of seeds and planting material, as well as from manufacture of consumer goods. In specialized forestry enterprises annual and perennial food plants such as coriander, basil, fennel, an onion-anzur, currant, dog rose, and raspberry are also grown commercially.

From the sale of wood and non-wood products, the forestry sector annually receives income in the amount of about USD 300 000. The export of medicinal raw material earns the national economy between USD 5 000 - 10 000 annually.

In addition to medicinal plants, planting material and seeds of various woody and bush species are exported. In 2004, planting material of woody and bush species was supplied for gardening in Afghanistan. The share of export in the total production of the forest sector is insignificant.

**Figure 1.3 Value of income from forest in 2004**



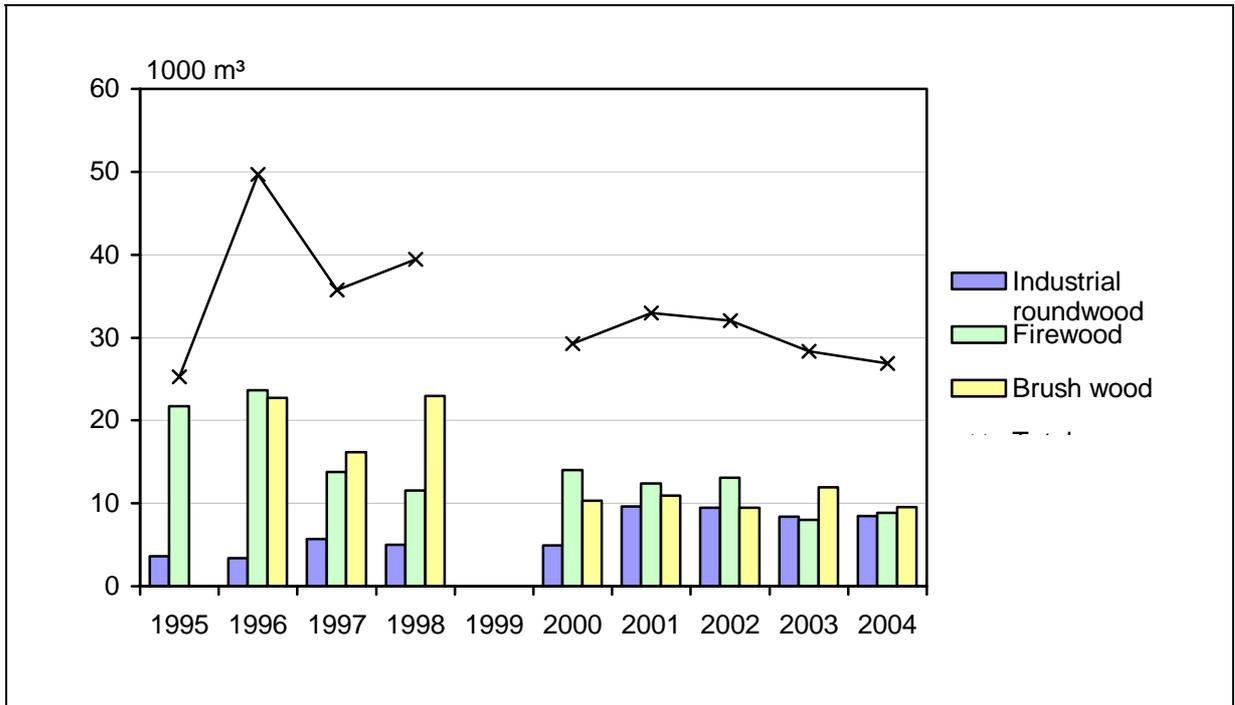
Note: The data given are taken from the reports of the Main Forestry Department and do not include the logging on the lands of shirkat farms (former kolkhoz)

All forests of the country are classified in the first group (protective forests), and industrial logging is forbidden. Wood for industrial purposes is mainly imported from other countries. Domestic wood can be harvested only through sanitary fellings and thinnings. Such wood is of bad quality and has trunk and branch diameters too small for use in construction or industrial purposes. It is used mainly for sawn timber and hardboards, for manufacture of matches, in the pulp and paper industry and for the manufacturing of wooden cases. In addition, it is widely used as firewood. The average annual wood harvesting is about 30 000 m<sup>3</sup> and the output of industrial wood is about 29% of the total (Figure 1.4).

Wood removals by region are presented in Figure 1.5, and they indicate a heavy concentration in two or three regions.

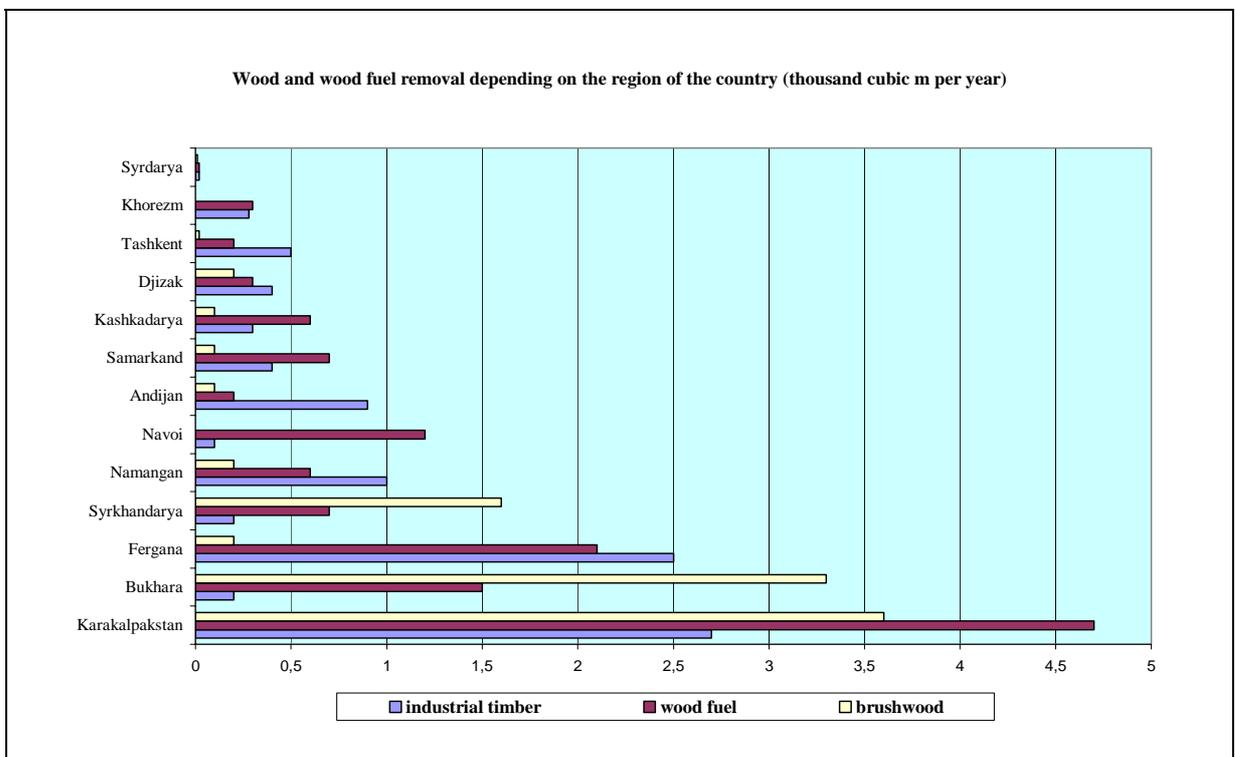
Wood removals increased from 1995 to 2003 by 2.5 times. Simultaneously wood fuel harvesting decreased by 1.7 times. The decreasing of wood fuel harvesting can be explained by the expansion of the provision of natural gas, which covered many provinces of the country during the period under discussion.

**Figure 1.4 Wood Removals by Type of Use**



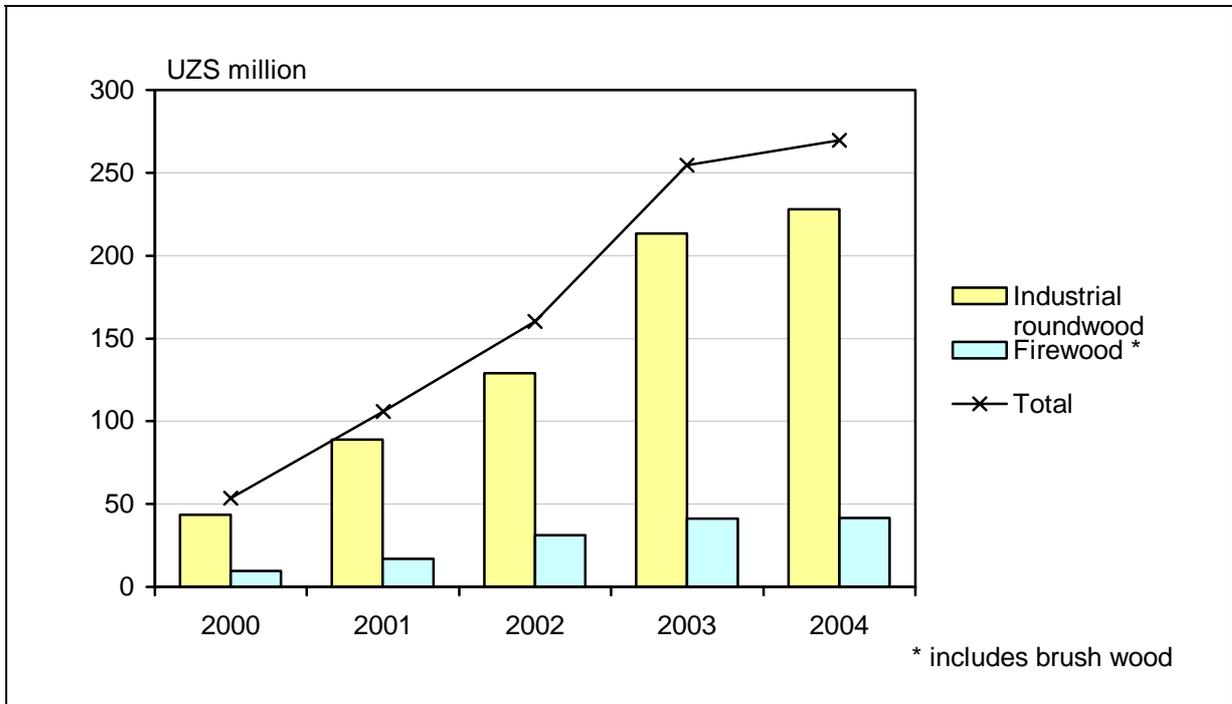
Note: The data given are taken from the reports of the Main Forestry Department and do not include the logging on the lands of shirkat farms (former kolkhoz).

**Figure 1.5 Wood and Firewood Removal by Region**



The sales value of timber and firewood from planned sanitary logging and thinning is increasing from year to year (Figure 1.6).

**Figure 1.6 Value of Officially Harvested Timber in Uzbekistan**



Note: The data given are taken from the reports of the Main Forestry Department and do not include the logging on the lands of shirkat farms (former kolkhoz)

The forestry sector employs about 8 000 persons, 673 in administration, 670 as foresters and 30 as hunters.

Uzbekistan participates in many international agreements and conventions, the forest-related of which are as follows:

- Framework Convention on Climate Change. Signed in 1992, ratified in 1993.
- Convention to Combat Desertification in the Countries, Mostly Affected by Severe Drought and/or Desertification, particularly in Africa. Signed 1994, ratified in 1995.
- Convention on Biological Diversity. Signed in 1992, ratified in 1996.
- Convention on International Trade in Endangered Species (CITES). Signed in 1973, ratified in 1997.

Uzbekistan has natural and social and economic resources, which allow steady development, but recently the environment has experienced changes due to anthropogenous and other factors. Recognizing the importance and necessity of prevention and mitigation of negative processes, Uzbekistan in 1993 signed the Frame Convention of the United Nations on Climate Change.

The government of Uzbekistan has also recognized the necessity of strengthening of struggle against desertification, and signed on 7 December 1994, and ratified on 31 August 1995 the

Convention of the United Nations on Struggle against Desertification and Drought. The National Program of Actions on Struggle against Desertification in Uzbekistan was developed based on this Convention.

There are a very few forest-related projects under implementation in the country. Almost all of them are concentrated in the Aral Sea region of ecological disaster, where the German Society on Technical Cooperation (GTZ) is implementing the project “Assistance to the private agriculture sector of Uzbekistan and forest reclamation on the dried bottom of Aral Sea”.

Representatives of “COFUTIS” (France) finished in March 2005 the implementation of the project “Protection of Environment”, financed through Department of Agriculture of the United States within the “Foodstuffs in the Name of the Progress” program. This project was implemented in the Muinak District of the Republic of Karakalpakstan, and in the Fergana Valley using agroforestry approaches.

In 2003 UNDP started a project on the “Establishment of the Nuratau-Kyzylkum Biosphere Reserve as a Model for Biodiversity Conservation in Uzbekistan”. One of the subcomponents of the project is “Community Forestry and Reforestation”. The main goal of the subcomponent is to increase the awareness of the community in forestry issues. One of the activities considered is the granting of lands belonging to the state forest fund to the local people through long-term lease. This is the first attempt to involve local communities in the reforestation process in Uzbekistan.

## **2. DEFINITIONS OF ILLEGAL LOGGING**

There is no precise definition of illegal logging in the Law about Forest or other laws or legislative acts of Uzbekistan. The definition is given to any illegal activity, such as illegal logging, illegal pasturing or haymaking in the forestlands, deliberate setting of forest fires and others such as “breach of forest regulations to the detriment of flora”. The assessment of the compatibility of the national definition of illegal logging, with the definition given in the Annex 2 of the Terms of Reference, shows that the national definition can be considered as “in a protected area”, “without appropriate permits”, “in prohibited area, such as steep slopes, river banks and water catchments”.

## **3. ILLEGAL LOGGING**

### **3.1 Volume of Illegal Logging**

According to official statistics the average annual volume of illegal logging in 1995-2005 was 677 m<sup>3</sup> per year causing damage worth UZS 465 million annually (Table 3.1). There is no indication of the type of illegal logging in the reporting but according to the officials from the Forestry Department some 75% of illegal logging is for firewood and the remaining 25% for industrial timber. The following trees are usually cut for industrial purposes: juniper, poplar, and rare walnut (some cases were registered in Kashkadarya region). Saxaul is harvested for firewood.

**Table 3.1 Official Data on Illegal Logging 1995-2004**

Year	Illegal logging	
	m <sup>3</sup>	Damage amount, UZS 1 000
1995	1 066.70	819 040.0
1996	352.00	794 863.8
1997	469.00	2490 974.0
1998	NA	NA
1999	301.00	6 991.0
2000	620.89	9 587.0
2001	725.28	9 562.0
2002	1 575.00	11 511.0
2003	598.20	30 896.0
2004	380.70	15 472.0
<b>Annual average</b>	<b>676.53</b>	<b>465 433.0</b>

Illegal timber is used mainly for (i) construction of houses, and (ii) cooking and heating. The data on the supply and demand of construction wood is too sketchy to draw conclusions. The official supply is complemented with supply from household yards and imports but precise data is lacking. Construction wood was traditionally used for window-frames, doors, parquet or woody floor. In addition, wood was used in roofs as crossbeams and for the ceiling. Surveys carried out in the markets and construction sites, however, have revealed that other materials such as plastic and aluminum are increasingly used. For windows finished articles, the so-called “glass package” made of glass and aluminum are often used. Instead of woody beams concrete beams are used. However, in remote areas inhabitants still use traditional wooden construction material for building of houses. For this purpose trees are planted on farmyards (Box 3.1).

**Box 3.1 Family Planting of Poplars**

There is a beautiful tradition of the Uzbek people having existed since ancient time. When a boy child is born in the Uzbek family, the father plants twenty poplars along the irrigation channel in his yard. When the boy is grown up, the poplars are grown up as well. When the son reaches marrying age, he needs a house for the new family. The poplar trees are cut down and house is built using the wood.

Volumes becoming available in this manner can be significant. Typically, the number of poplar trees grown by a household could be 20. Assuming that the average volume of one poplar tree would be about 1 m<sup>3</sup> the total standing volume per household would be 20 m<sup>3</sup>. The number of private houses is about half a million and 90% of these are located in rural areas, and are thus potentially growing poplars. For instance, if 10% of these households were growing poplars in their yard, the total standing volume would be nearly a million m<sup>3</sup>.

Poplar trees are usually grown in the yard, not outside of the private plot. This is, first of all, security against theft since trees planted in the yard are protected by fence. The second reason is that cutting trees outside the yard requires a permit and payment of a fee to the government.

This example can be considered as one of the options for solving the problem of illegal logging for construction purposes.

The rural population in Uzbekistan is 16.1 million people. Most rural people live in valleys, and much smaller numbers in the mountain and desert area. According to available statistics (2001), 92% of the rural population is provided with gas for their household needs (heating of houses, preparing food), that is equal to 14.8 million people. The remaining 1.3 million need other sources of fuel for households. Assuming that an average family consists of six people there are about 217 000 families in this situation. The number of may be an overestimate because environmental changes and lack of employment have led to migration from the desert areas to valleys and big cities. In addition, not all of the remaining families depend on fuelwood; kerosene, coal etc. are also used as energy sources.

However, fuelwood remains an important energy source and it is likely that a substantial portion of fuelwood is obtained illegally. One family may use an average of 6 m<sup>3</sup>/a of fuelwood for heating and cooking. In 2004, the volume of officially harvested fuelwood and brushwood was about 18 000 m<sup>3</sup> meaning that only 3 000 families depending on fuelwood would exhaust the official supply. The true number of families consuming firewood is likely to be much higher suggesting that the volume of illegal fuelwood logging is fuelwood.

### **3.2 Types of Illegal Logging**

Based on available statistical data and other information, it may be concluded that illegal logging in Uzbekistan is carried out mainly for two purposes: construction of houses and firewood; the latter being the predominant type. According to independent experts, illegal logging for firewood occurs mainly in rural areas. It should be noted that only a few people live in the mountains where most forests are located; even the rural population is concentrated in the valleys.

As indicated by the study carried out by the Interstate Committee on Sustainable Development of Central Asia, the poverty of countryside people and the increase of the number of refugees force these people to use saxaul and flood plain forests for fuel. The area under these species around the Amudarya River has decreased from 150 000 ha in 1928 to 22 000-23 000 ha in 1993.

The situation regarding poverty driven illegal logging of firewood is summarized in Table 3.2.

After the declaration of independence, building of apartment buildings considerably decreased in Uzbekistan. Roundwood and other wood material are mainly imported from other countries, which has increased the prices from the levels that prevailed in the Soviet period. This has led to search for alternative materials, such as plastic, aluminum, concrete etc. In the mountain areas, local people have been forced to use the timber from the forests. As legal logging, which is usually done through sanitary logging and thinning, yields only limited volumes of construction wood available, the actual needs of local inhabitants cannot be met from official sources. Thus, it can be concluded that illegal logging for construction wood results from lack of affordable (and legal) construction material.

**Table 3.2 Checklist on Poverty Driven Illegal Activities in the Forest Sector**

Statement	True/false	Comment
Almost all (more than 80%) of rural people depend on firewood for energy needs	False	
The majority (more than 50%) of rural people depend on firewood for energy needs	False	
There is no feasible alternative energy source available for the rural people who depend on firewood, especially the poor	False	
Almost all (more than 80%) of urban people depend on firewood (and/or charcoal) for energy needs	False	
The majority (more than 50%) of urban people depend on fuelwood (and/or charcoal) for energy needs	False	
There is no feasible alternative energy source available for the urban people who depend on firewood (and/or charcoal), especially the poor	False	
Almost all (more than 80%) firewood (and charcoal) production and trade is done outside of the formal economy/without legal authorization	False	
The majority (more than 50%) of firewood (and charcoal) production and trade is done outside of the formal economy/without legal authorization	True	
The legally extractable supply of firewood (and charcoal) is sufficient to meet the subsistence needs of rural and urban populations.	False	Firewood is harvested when sanitary felling and thinning is not providing enough wood to meet the needs of people.
Almost all (more than 80%) of wood used in local construction in the rural areas in harvested and transported without legal authorization	False	
Most (more than 50%) of wood used in local construction in the rural areas in harvested and transported without legal authorization	False	

### **3.3 Exports of Illegal Timber**

In the Soviet era, the supply of rough, semifinished and finished wood products in Uzbekistan originated mostly from other parts of the Soviet Union. Since 1991, Uzbekistan has faced a shortage of wood and wood products. Currently, most wood products are imported from Russia (Altai, Siberia) and northern Kazakhstan. Prices are relatively high due to high transportation cost (rail tariffs).

Forest products are exported mainly to neighboring countries of the Central Asian region and they include plywood, sawn timber, wood fuel, some quantity of round wood in the rough and paper and paperboard uncoated as well as packaging paper. In addition, pulp made from non-wood fibers such as stems of cotton plant are exported. The total income from exports of forest products was USD 2.88 million in 2003. Of this, the trade of pulp-and-paper products represents the largest value USD 2.38 million. Paper exports have increased steadily; at the same time furniture export has been on the decline. Between 1999-2003 the trade of plywood, sawn timber and other wood products trade fluctuated strongly and no clear trend could be observed. This trade is summarized in Table 3.3.

**Table 3.3 Imports and Exports of Charcoal and Firewood**

	Unit	1999	2000	2001	2002	2003
<b>Imports</b>						
Wood charcoal	t	16	0	0	1	1
Wood fuel	m <sup>3</sup>	3 000	11 185	312	208	0
Industrial roundwood and processed wood	m <sup>3</sup>	359 780	983 854	465 461	611 170	618 027
<b>Exports</b>						
Wood fuel	m <sup>3</sup>	31	0	0	0	1 562
Industrial roundwood and processed wood	m <sup>3</sup>	974	3 347	3 806	5 563	3 263

According to customs regulations, the companies importing wood have to pay a 20% value-added tax and a 0.2% fee for the customs services of the total value of the goods. Individuals have a preferential treatment in that they pay only for the customs services, and therefore the major part of the wood is imported to the country by individuals.

The export of illegal roundwood and other wood products cannot be done in quantitative terms due to non-availability of information. However, independent experts view that considering the shortage of roundwood in the country there is no considerable export of illegal timber.

### **3.4 Impact on Government Finances**

The impact on government finances cannot be assessed because there are no sufficiently reliable estimates on the volume illegal logging available.

### **3.5 Threats to Environment**

The forests of Uzbekistan are classified as first group forests (protective forests). Therefore, illegal logging causes great damage to natural and semi-natural forests. The biggest threat is illegal felling of trees and bushes for fuel. Usually, the forest stands located close to settlements are cut down. In desert areas the main species is saxaul (*Haloxylon spp.*), which is playing a very important role in fixing moving sands and preventing wind erosion kicking up salted dust. Infringements are more frequent in deserted and semi-deserted zones where saxaul stands are grown at some distance from forestry enterprises.

The methods used for illegal logging take sometimes forms that cause major environmental damage. In one occasion the experts observed that a long rope was fastened from one end to the biggest saxaul tree in the stand, and the other end was tied to a tractor. After this the tractor is driven around, and the big tree in the literal sense of the word “sweeps” the forest. Thus, not only mature trees are damaged but also young seedlings of natural restoration are affected.

In mountainous zone there are stands of endemic species of junipers (*Juniperus turkestanica*, *J. seravschanica*, *J. semiglobosa*), called by local people “archa”. They used to be cut down

in a particularly damaging manner to obtain charcoal. Even now furnaces constructed of stones and used for burning out of coal from wood can be found on high mountains.

There is also evidence of ring-barking or burning trees in order to facilitate obtaining the license for their legal logging. This is not practiced on a large scale but it affects the natural resources and threatens the sustainable conservation of biodiversity in the region.

**Figure 3.1 Mountainous Landscape of Uzbekistan**



The most significant example of improper logging and forestry management is the fate of tugai forests i.e. poplar species located in flood plains. These forests have almost disappeared due to improper land and water management such as clearing land for cultivation of agricultural crops. As a result many species of flora and fauna have disappeared.

The special case of walnut (*Juglans regia*) should also be mentioned. Walnut wood is esthetically very pleasing and it is therefore much used in furniture manufacturing. Local people often grow these trees in their yards to eventually harvest nuts and sell them in the local market. In the last few years, it has been observed that walnut timber from private gardens has been sold to private companies for furniture manufacturing. This has resulted in a loss of walnut biodiversity in the country.

There are fears that the few still surviving “tugai” forests in the riparian zones along river banks would be subject to illegal commercial harvesting and sold as a construction timber. However, due to small quantity of trees which can be used for sale and high transportation cost, this kind of illegal activity is not observed. In practice, trees in riparian zones and mountainous area can be cut for construction purposes only to build the local inhabitants’ own houses.

## **4. GOVERNANCE**

### **4.1 Policy Framework**

#### **4.1.1 Forest policy**

According to the “Law about Forest” accepted by Oliy Majlis (Supreme Council) of Uzbekistan on 15 April 1999, the decision of the Cabinet of Ministers No. 32 of 17 January 2001 “About the Organization of Activity of the Main Forestry Department under the Ministry of Agriculture and Water Resources of Uzbekistan”, the decision of the Cabinet of Ministers of 30 March 2001 No. 160 “Regulations of the Main Forestry Department under the Ministry of Agriculture and Water Resources of Uzbekistan” and other normative documents the forestry sector is to be monitored by the Main Forestry Department, and the forestry enterprises organize the work on site with local authorities (provincial and regional *knokimiyats*).

The primary goals of the Main Forestry Department (MFD) are the following:

1. Carry out uniform policy directed on expansion and rational use of forest resources, their reproduction and improvement of the forest fund with a view to increasing their ecological and reclamation value to meet needs of the national economy and the population in terms of wood products;
2. The inventory and study of forest fund, fauna and flora;
3. Management of reserves, state hunting, departmental protection of flora and fauna, the control over observance of regulations, norms, terms of hunting, management of the hunting and other requirements on protection and use of fauna, correctness and timeliness of development and carrying out actions on preservation of inhabitancy, conditions of reproduction and ways of migration of animals, state cadastre of hunted animals in territory of the forest fund; carrying out harvesting and storing of medicinal and food plants;
4. Observance of the forest legislation, control over execution of the specifications and technical documentation on management of forestry and hunting sectors.
5. Management of use, reproduction and protection of forest resources, including reserves and national parks on forested lands;
6. Management and supervision of hunting, observance of hunting regulations on forested lands.

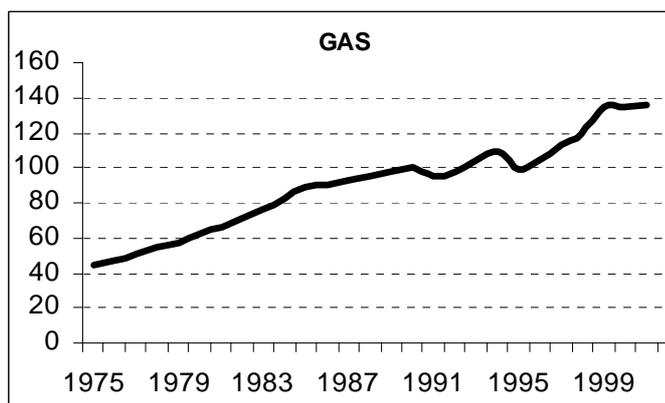
Meanwhile there is the strong need to develop a coherent strategic framework for the sector in the form of a National Forestry Program combining forest policy, sustainable forest management and outlook study. In July of 2004 the Government of Uzbekistan approached the FAO of the United Nations with request to consider the possibility of providing the consulting, technical and financial assistance in NFP development for Uzbekistan. This inquiry is being considered.

#### 4.1.2 Energy policy

Given the fact that illegal logging is driven mainly by fuelwood needs, there is an obvious link to energy policy. However, this link is not explicitly dealt with in policies concerning the forest sector.

Uzbekistan has its own source of the natural gas and many cities, towns and villages in valleys are provided with gas supply. The gas consumption has increased for the last years.

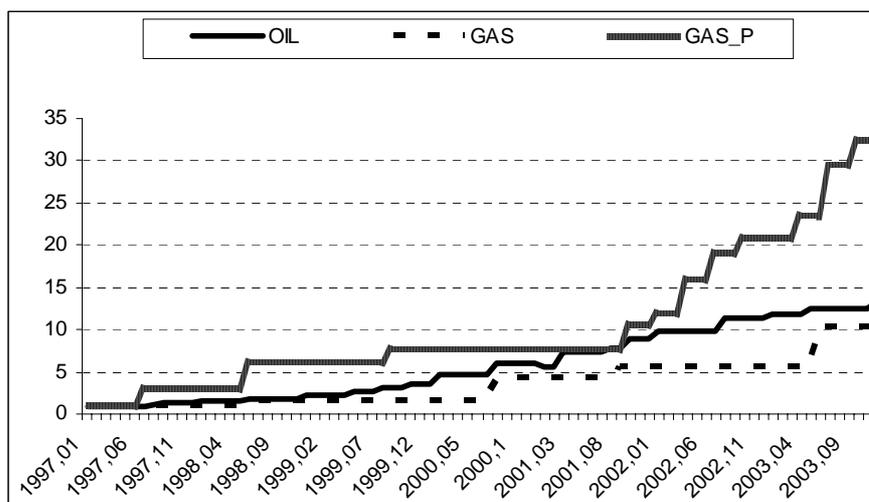
**Figure 4.1 Gas Consumption in Uzbekistan**



Source: Until 1990: Statistical Book “National Economy of Uzbekistan”, 1991 onward: the Ministry of Macroeconomic Statistics

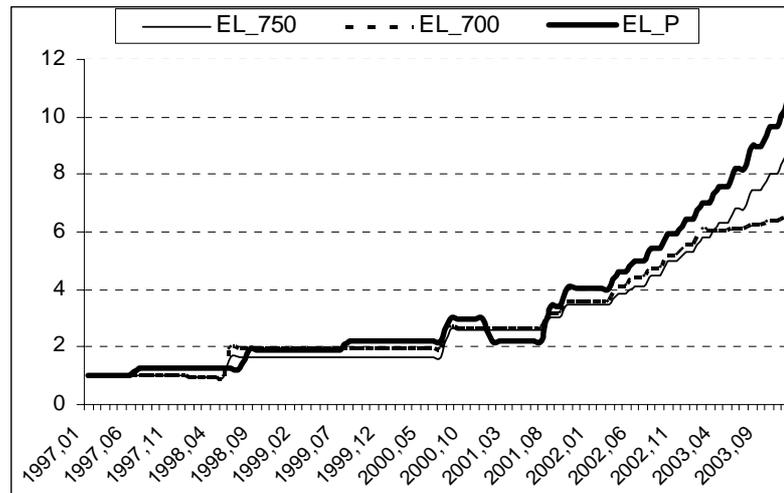
However, lately the price for gas, electric power and fuel has been raising making people living in rural areas use firewood for the cooking and heating of their houses (Figure 4.2 and Figure 4.3).

**Figure 4.2 Oil and Gas Prices in Uzbekistan**



Source: Ministry of Macroeconomic Statistics. Note: OIL – prices for petrol (UZS/liter). GAS – price for gas (UZS/1000 m<sup>3</sup> for enterprises). GAS\_P – price for gas (UZS/1000 m<sup>3</sup> for population)

**Figure 4.3 Price of Electricity in Uzbekistan**



Source: Ministry of Macroeconomic Statistics. Note: EL\_750 – price for electric power (UZ\$/kWh for enterprises > 750 kW), EL\_700 – price for electric power (UZ\$/kWh for enterprises < 750 kW), EL\_P – price for electricity for population.

## 4.2 Legal Framework

The main legislative document concerning the forestry sector in Uzbekistan is the “Law about Forest” accepted on 15 April 1999. The general regulations concerning forestry sector and bodies responsible for their management are stipulated in the Law. Under the Law the monitoring of protection, use and restoration of the forests is fulfilled by the Main Forestry Department under the Ministry of Agriculture and Water Resources of Uzbekistan. The law gives the description of the forest protection and the duties of guards-inspectors, forest use rights and types, logging of bush and tree stands as well as the confiscation of illegally obtained forest products.

Another important legislative act is the “Law about especially protected natural territories” accepted on 7 May 1993. The identification of recreation zones, regime of the state national parks and reserves and other protective zones is given in the law with special emphasize in the prohibition of any logging except sanitary cutting and thinning of forests in those zones.

The third “Law about Protection and Use of Flora” was accepted on 26 December 1997. The procedure of logging with the special permission documents and issues concerning the protection of flora are stipulated in the law.

The situation regarding the transparency of timber sales is summarized in Table 4.1.

In addition, a range of legislative acts and norms have been developed to facilitate the control over illegal logging. According to legislative norms cases of illegal logging are to be transferred to courts for their consideration. After verdict is declared, the management of local forest office is to reimburse the indicated damage to the budget of local authorities within 15 days. Otherwise the financial bodies have the right to take off this amount from the account of forestry budget. If illegal logging does not cause major damage, forestry department can take the decision itself. According to the judge’s decision the confiscated timber is to be sold in an

established order. The penalties and profit from the timber sold which were cut by shirkat farms or enterprises are to be transferred to the budget of local authorities as income from forestry sector. The penalties and profit from confiscated timber cut by individuals will be transferred to the state budget.

**Table 4.1 Checklist on Transparency of Timber Sales**

Statement	True/false	Comment
<b><i>Awarding concessions/selling timber</i></b>		
Concessions are awarded/timber is sold predominantly through competitive bidding	False	Concessions are not awarded in Uzbekistan due to absence of industrial timber logging. There is selling timber to local people from the forestry enterprises.
The public has notice and opportunity to bid before awards	True	People know about planned logging and when they need timber they can come and buy logged wood from the forestry enterprises
Several bids are presented as a rule in the bidding processes	False	
Bids are made public after awards	False	
Award rules are publicly available	True	
Unsuccessful bidders and other interested parties may challenge awards	True	They may challenge the award through the court, but usually they find other alternatives to wood
An independent internal government watchdog polices the process	True	SCNP controls the process of logging made on the forest lands of the MFD and other institutions
Forest officials must disclose financial interests in the forest sector (own and those of family members/close relatives)	True	
<b><i>Timber harvesting and sales from valid concessions</i></b>		
Concession contracts, inventories and plans are publicly available	True	Contracts are concluded between forestry enterprises and other organizations and individuals interested in wood harvesting
Rules regarding forest practices concerning concession areas are publicly available	True	They are not published, but local people usually know about planned logging
Citizens may bring lawsuits or file administrative complaints to enforce concession requirements	True	They may, but usually do not do it
<b><i>Timber harvesting and sales from private forests</i></b>		
Forest officials have a procedure for controlling in the field timber harvesting and sales from private forests		All forests in the country are the state property
Rules regarding forest practices on private lands are publicly available and accessible to private forest owners		
<b><i>Transport of timber</i></b>		
Government officials have a procedure for controlling the transport of timber	True	Transport of timber is carried out mainly by trailers. Tractors pulling trailers are provided by the forestry enterprises.
Government officials have a procedure for verifying the origin of timber being transported	True	Stamp on the timber and wood-cutting coupons verify the origin of the transported timber. One wood-cutting coupon is at the forestry enterprise office, the second at the Chief of the cutting site and the third – at the harvester.

Statement	True/false	Comment
<b><i>Sales of confiscated timber</i></b>		
Records are kept on volumes and assortments of illegally procured or transported wood captured by officials	True	If during survey rounds unregistered cutting is revealed through the existence of non-stamped stubs, the penalty for illegal logging is paid by the forest guard responsible for the site. Two stamps are to be present – one on the logged wood, and the second – on the stub from the logged wood.
Captured wood is sold in public auctions or through other kinds of public bidding	True	The confiscated timber is registered and sold to the local people
Records are kept on volumes confiscated and sold as well as on prices obtained	True	
<b><i>Processing of forest products</i></b>		
Law requires licensing or registration of commercial processing facilities	True	
Government performs regular inspections of processors	True	State bodies: Fire Inspection, Sanitary Epidemiologic Station, organizations responsible for accident prevention regularly perform inspections.
<b><i>Export or import of forest products</i></b>		
Customs officials trained to recognize restricted/prohibited species		
<b><i>Concealing revenue from forest activities</i></b>		
Forest revenue system (royalties, taxes etc.) establish a clear basis for monitoring revenue collection (volume or area based)		
Records are kept on logging volumes and revenue collection by defined geographic areas	True	All information about logging volumes within the country is collected by and kept in the Main Forestry Department
Periodic audits are carried out to verify that revenue collected matches with logging volumes/ areas under production	True	
<b><i>Civil services, social, and institutional factors that influence illegal activity</i></b>		
Forestry officials regularly trained to upgrade law enforcement skills	True	Workshops to improve staff qualifications are regularly provided on site and in the Training Center at the MFD
Judges and prosecutors trained in forest sector issues	False	There is not the special training for judges and prosecutors in forest sector issues excluding some clauses in the Criminal Code concerning the crimes in the sphere of nature protection. The judgment is made on the basis of decrees and according to the expert's conclusion.
Forest agency is subject to independent audits	True	
Civil service has ethical code-of-conduct (e.g. regarding acceptance of gifts and benefits)	True	
Ombudsman or other independent mechanism responds to public complaints	True	Public prosecutor's department or court

### 4.3 Monitoring and Control System

The principal Government agency with direct responsibility for the state forest fund is the Main Forestry Department under the Ministry of Agriculture and Water Resources of Uzbekistan. In the structure of the MFD there are 93 forestry enterprises. 76 of them have specialized shops for manufacture of consumer goods for local people, 20 of them have wood processing equipment.

Forest Project Design Institute under the MFD develops the forestry plan for ten years. This plan includes designated plots for logging, planting of trees and the forest inventory made during surveys. The logging plan is approved in the MFD and is delivered to the forestry enterprises for implementation.

Sanitary felling and thinning is carried out twice a year: in the spring and fall. Logged timber is mainly of low quality and it usually processed in the shops of the same enterprise to manufacture wood products to be sold to various organizations and local people. Wood is sold as a roundwood, but it can be processed at an extra cost. Forestry enterprise may provide services for wood transport, mainly on trucks or trailers, including appropriate documentation.

There are some controlling organizations in the country: Quarantine Inspection and State Committee on Nature Protection which are engaged to make surveys and give instructions on further logging on the defined plots, and to control current status of forests.

For proper control of logging, different types of stamps are issued to the forester guards as follows: assigning, logging and control stamps. The assigning stamps are applied when choosing the trees for logging and during the logging process. The logging stamp is applied to differentiate the legal stubs and timber from illegal logging. The control stamp is used by the inspectors or chief forestry guards to stamp the stubs of illegal logging revealed during inspections.

Inspections can be planned, controlling or special. All inspections are followed by the drawing up the Act. Planned inspections are carried out twice a year: in the spring and in the fall, controlling and special inspections are implemented occasionally by the order of the director of forestry enterprise. During the surveys the events of unregistered logging are determined and registered. The results of the inspection work are shown in Table 4.2.

**Table 4.2 Illegal Logging Cases Detected During Inspection Work**

	2000	2001	2002	2003	2004
Illegal logging registered by the forestry guards	404	196	215	206	149
Total illegal logging, including those recorded during inspection surveys	739	351	376	437	376
Balance of illegal logging (actual minus registered)	335	155	161	231	227

The amount of unregistered logging is sometimes considerably higher than registered illegal logging (as in 2004). There can be two reasons for unregistering the logging by the guards: (i) they are not able to cover all their territory, and (ii) illegal logging is carried out with their consent. In case of illegal logging, the inspectors determine the volume of logged wood based on stub diameter, and the forester guard is obliged to pay for the damage.

Forestry enterprises do not have adequate material and technical resources to protect forest plantations of saxaul and other desert plants planted with the purpose of prevention of wind erosion and fixing of sand. This was also noted by the staff of Tacis Group during implementation of the Joint Environmental Program in Baday Tugay Nature Reserve: “Only two guards are there to cover the reserve’s 6 000 ha and consequently it has a problem with poachers and illegal logging of the reserve’s trees for use as fuel and construction materials (although many of these trees are in fact already dead or dying)”.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

There are two purposes of illegal logging in Uzbekistan: construction and firewood. The volume of illegal logging with purpose to get firewood exceeds the volume of trees cut for construction by a large margin. As there is no extra wood in the country even to cover the domestic needs, illegal logging for export of wood is not noted.

Illegal logging affects first of all the environmental conditions of the country. Generally, this causes the following impacts:

- intensified desertification
- deforestation
- cutting down riverside and gallery forests leading to land erosion in mountains and valleys
- unstable water regime
- damaging the natural forest restoration and others

It is natural that people aim to improve their living conditions or in some cases to survive in the rigorous environment. In order to meet the people’s needs for timber and firewood it is necessary to develop the forestry sector, especially in the low-forested area of the country. The measures taken with respect to supply of alternative fuels are also of key importance for illegal logging. The recent price increases of alternative fuels will increase pressure to log fuelwood illegally.

Good forestry governance depends on appropriate forest institutions having the forest resources under their jurisdiction. Nowadays, these institutions work independently, without sharing information and experience.

The links between forestry institutions and other governmental institutions are also weak. There is no transparency in a manner that would allow free exchange of information or obtaining data required for the management of the sector.

The following recommendations are common for both types of illegal logging. They are to be considered as measures to be undertaken by the government, taking into account the dominating role of the government in forest management.

### **5.1 Measures Against of Illegal Logging**

1. Development of consistent and comprehensive policy framework against illegal logging
2. Improvement of existing legislative norms and governance, including development of framework for long-term leasing of forestlands
3. Poverty alleviation and enhancing the sustainability of natural resource management
4. Increasing the public awareness and community forestry programs through long-term leasing of forest lands
5. Restructuring forest institutions and capacity building
6. Improved monitoring and control of forest resources
7. Increasing the transparency and data sharing between institutions
8. Equipping forestry staff with appropriate communication devices and transport means to facilitate their movement within their plot and contact to other staff in case of emergency.
9. Increasing the salary for the forest staff in the forestry enterprises, especially for forest guards

Depending on the type of illegal logging the following measures could be proposed to solve the problem.

### **5.2 Illegal Logging for Construction**

Short-time measures:

1. Supply of alternative construction material for house building
2. Decrease the cost of industrial wood from the planned logging

Long-time measures:

1. Creation of industrial plantations

### **5.3 Illegal Logging for Firewood**

Short-term measures:

1. Increase of alternative fuel supply (natural gas, petrol, electric power, sun batteries for heating of dwellings)
2. Reduced cost for firewood and alternative fuel sources
3. Better utilization of firewood harvested (there is some evidence indicating that non-sold firewood in one region was burnt at the time when other regions suffered from lack of firewood for the local people)

Long-term measures:

1. Creation of plantations for firewood

All the measures listed above will not eliminate illegal logging completely, but will facilitate to decrease illegal logging and promote the improvement of environmental conditions and poverty alleviation.

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**LIST OF REPRESENTATIVES OF SOME ORGANIZATIONS AND INSTITUTIONS PARTICIPATING IN DISCUSSION DURING INFORMAL MEETING AT THE MAIN FORESTRY DEPARTMENT AND VISITED IN THE OFFICES**

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Mr. M. Yakubov, Chief of Division, MFD

Mrs. G. Reshetnikova, Leading Expert, MFD

Mr. A. Sultanov, Head of Department, Republican Scientific Production Center of Decorative Horticulture and Forestry

Mr. A. Kayimov, Director of HGO “Ecoles”

Mr. S. Zagrebin, UNDP, Nuratau-Kyzylkum Project

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Mr. F. Shamsiev, Deputy Head of Department on Hunting, Reserves and National Parks under the MFD

Mr. B. Sadriddinov, Europa House

Prof. A. Khanazarov, Deputy Minister of Agriculture and Water Resources, Director of Scientific Production Center on Agriculture

Mr. H. Tukhtarov, Head of Construction site

**REMOVALS IN 2003-2050**

Types of measures	Average	Cumulative		
		2003-2010	2011-2025	2026-2050
	1 000 m <sup>3</sup> /a	1 000 m <sup>3</sup>		
Forest care thinning	1.9	15	45	95
Sanitary felling	9.2	72	212	442
Forest restoration logging	23.6	185	535	1 135
<b>Total</b>	<b>34.7</b>	<b>272</b>	<b>792</b>	<b>1 672</b>

Source: FOWECA Country Paper – Uzbekistan, 2005

**FOREST PROTECTION CATEGORIES BY THE END OF 2010, 2025 AND 2050**

No.	Category	Forecasted results		
		By the end of 2010	By the end of 2025	By the end of 2050
		1 000 ha		
1	Forbidden forest shelterbelts along river banks and water reservoirs	62.5	63.9	67.1
2	Anti-erosion forests	1 780.7	1 907.9	2 118.3
3	Protective shelterbelts along roads and railroads	103.5	113.0	128.5
4	Desert and semi-desert forests	6 567.0	7 292.9	8 168.5
5	Municipal gardens and forest parks	25.6	27.1	29.6
6	Forest stands around cities, settlements and industrial centers	26.9	34.7	47.7
7	Forest stands around health centers	5.9	6.4	6.9
8	Especially valuable forest stands	90.4	97.3	108.1
9	Nut-tree forests	41.9	53.0	71.5
10	Fruit-tree plantations	62.9	171.9	353.9
11	Forests in state reserves	405.5	455.5	505.5
12	Forests of scientific or historical importance	12.9	13.4	13.6
	<b>Total</b>	<b>9 185.8</b>	<b>10 237.1</b>	<b>11 619.3</b>

Source: FOWECA Country Paper – Uzbekistan, 2005

**POPLAR PLANTATION CREATION (FOREST FUND OF THE MFD)**

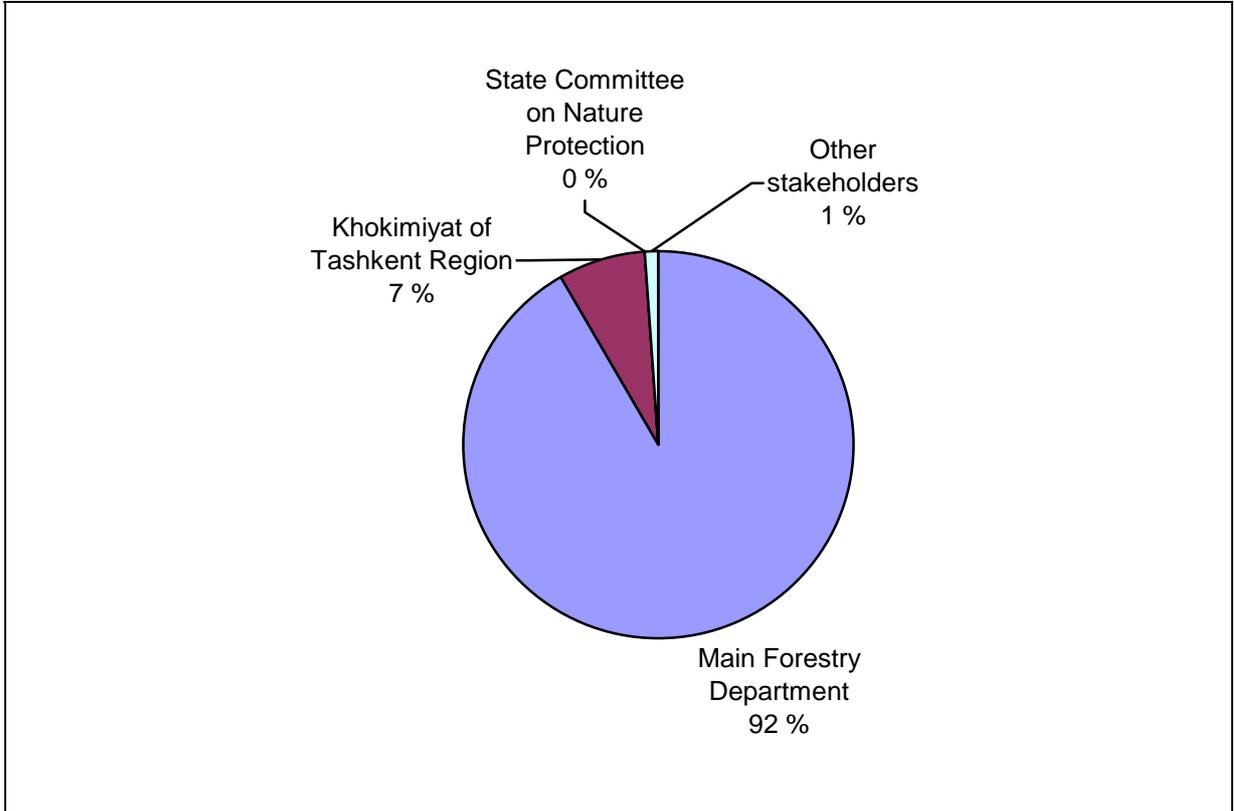
Region	1994	1995	1996	1997	1998	1999	2000	2001	2002
	ha								
Karakalpakstan	1 055.0	889.0	627.0	441.1	327.0	200.6	122.4	525.7	108.6
Andijan	610.0	611.0	138.6	12.0	99.7	58.5	1.5	91.6	512.8
Bukhara	455.0	452.0	120.0	16.7	93.8	60.0	..	713.2	115.0
Djizak	452.0	578.0	6.0	164.5	..	27.2	49.0	149.7	83.9
Kashkadarya	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
<b>Total</b>	<b>7 301.0</b>	<b>6 383.0</b>	<b>3 563.6</b>	<b>2 384.3</b>	<b>1 419.0</b>	<b>1 511.4</b>	<b>613.3</b>	<b>2 285.6</b>	<b>3 455.2</b>

Source: Forest and Forest Products Country Profile – Uzbekistan 2005.

**ANNUAL REMOVALS UNDER MAIN FORESTRY DEPARTMENT**  
(as of 1 January 2002)

Region	Industrial roundwood	Firewood	Brush wood	Total
	1 000 m <sup>3</sup>			
Republic of Karakalpakstan	2.70	4.70	3.60	11.00
Andijan	0.90	0.20	0.10	1.20
Bukhara	0.20	1.50	3.30	5.00
Djizak	0.40	0.30	0.20	0.90
Kashkadarya	0.30	0.60	0.10	1.00
Navoi	0.10	1.20	0.00	1.30
Namangan	1.00	0.60	0.20	1.80
Samarkand	0.40	0.70	0.10	1.20
Surkhandarya	0.20	0.70	1.60	2.50
Syrdarya	0.02	0.02	0.01	0.05
Tashkent	0.50	0.20	0.02	0.72
Fergana	2.50	2.10	0.20	4.8
Khorezm	0.28	0.30	0.00	0.58
<b>Total</b>	<b>9.50</b>	<b>13.12</b>	<b>9.43</b>	<b>32.05</b>
%	29.6	41.0	29.4	100.00

**MAIN FOREST STAKEHOLDERS FOREST FUND OF UZBEKISTAN IN 2002**



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