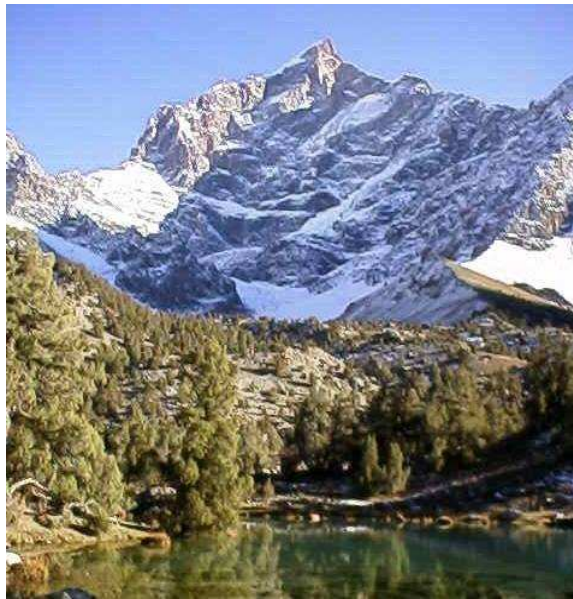


**ENSURING SUSTAINABILITY OF FORESTS AND  
LIVELIHOODS THROUGH IMPROVED  
GOVERNANCE AND CONTROL OF ILLEGAL  
LOGGING FOR ECONOMIES IN TRANSITION**



**Working Document - Azerbaijan  
for  
The World Bank**

**Savcor Indufor Oy  
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**ACRONYMS AND ABBREVIATIONS**

%	percent
a	per year
CEPF	Critical Ecosystem Partnership Fund
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EU	European Union
GEF	Global Environment Facility
ha	hectare
IMF	International Monetary Fund
m <sup>2</sup>	square meter
m <sup>3</sup>	cubic meter
MENR	Ministry of Ecology and Natural Resources
NGO	non-governmental organization
PA	Production Association
TACIS	Technical Assistance to the Commonwealth of Independent States and Georgia
TOR	Terms of reference
UN	United Nations
UNECE	United Nations Economic Commission for Europe
USD	United States Dollar
WB	The World Bank

## 1. INTRODUCTION

### 1.1 Basic Facts of Forest Sector

Relations in forest use, protection, conservation and rehabilitation are regulated by the respective provisions of the forest and land-use codes of Azerbaijan. Individuals that violate forest legislation bear disciplinary, administrative, civil and criminal liability according to the national legislation. Forests are under state ownership and may not be privatized. Azerbaijan Republic, Nakhchivan Autonomous Republic, municipalities as well as the legal and natural persons are subjects of the forest relationships. Forest users are legal and natural persons who are empowered to use specific woodlots based on concluded lease agreement, felling license, order and wood ticket. Right to use forest resources under contract is free unless it endangers forests and imposes negative environmental impact.

State management over the forest use, protection, conservation and rehabilitation is implemented by the Forest Development Department of the Ministry of Ecology and Natural Resources (MENR) and its regional subdivisions. The number of workers of the forest management entities was 2 550 including 680 engineers and technical personnel and 1 870 workers (including 1 000 foresters) on 1 January 2005.

Use of all kinds of forest resources is regulated on the basis of payments. Income from forestry use consists of forest use payments (wood sales, sanctions) and income generated through forest management activities. Received income is accumulated in the Forest Protection and Reproduction Fund, and is liable to 2% simplified taxation.

Only 11.4% of the land area of Azerbaijan is covered by forests. The total forest area makes up 1 213 700 ha of which 989 500 ha are covered by forests. According to the latest estimations total national wood volume is 121 million m<sup>3</sup>.

All forests remain in state ownership and are rated as first group of resources, which implement environmental protection, soil conservation, climate regulation and socio-ecological functions. Only sanitary and improvement felling can be made. In order to conserve forests, the government has banned industrial logging since 1991. Since 2003, improvement felling is also prohibited although it is aimed at achievement of forest sustainability and increase of the reproduction capacity. Only sanitary felling of dead wood and sick plants is allowed. Sanitary felling from dead brushwood, branches and trunks is also carried out.

Since Azerbaijan gained its independence, national forest resources have become subject to increased man-caused impact due to:

- (i) poor energy and heating supply,
- (ii) economic crisis that led to reduced paying capacity of local communities for fuel and energy resources supplied by the government, and
- (iii) increased demand of private businesses for cheap merchantable wood (including also rare wood species).

The country also imports alternative fuel sources, mainly coal and charcoal. The demand for merchantable roundwood is mainly covered through illegal logging, which intensifies land-cover desertification.

In order to improve the situation, the Forest Development Department of MENR implements planned activities on forestry rehabilitation and protection. In 2003 natural forest rehabilitation activities have been performed in an area of 5 000 ha and new forest plantations were implemented in 3 700 ha. In 2004, similar activities covered 5 500 and 3 700 ha, respectively.

Industrial felling and wood export is prohibited by the national legislation. Export trade of timber is not practiced according to the official statistics. Official data demonstrates following volumes of sanitary and dead-wood felling: 22 000 m<sup>3</sup> in 2003 (including 110 m<sup>3</sup> of merchantable roundwood), 32 000 m<sup>3</sup> in 2004 (600 m<sup>3</sup>). Income from wood commercialization totaled at USD 59 000 in 2003 and USD 312 000 in 2004.

According to the former Ministry of Economy and State Statistical Committee, firewood was included in the country's fuel and energy balance until 1995. Firewood implied (a) by-products of the woodworking industry functioning on wood imported from Russia, Ukraine and other regions of the former Soviet Union, and (b) small volumes of local wood produced as a result of improvement and sanitary felling as well as cleaning cutting activities regularly implemented by the PA "AzerForest". Firewood was mainly supplied to the rural facilities of the Ministry of Defense, Ministry of Education (primary and secondary schools), local authorities and population. Firewood was excluded from the fuel and energy balance in 1996, and its industrial use and sale to local households is not widely practiced anymore (except for selling wood produced as a result of improvement and sanitary felling, and cleaning cutting). Figure 1.1 shows the firewood consumption in Azerbaijan in 1990-2004.

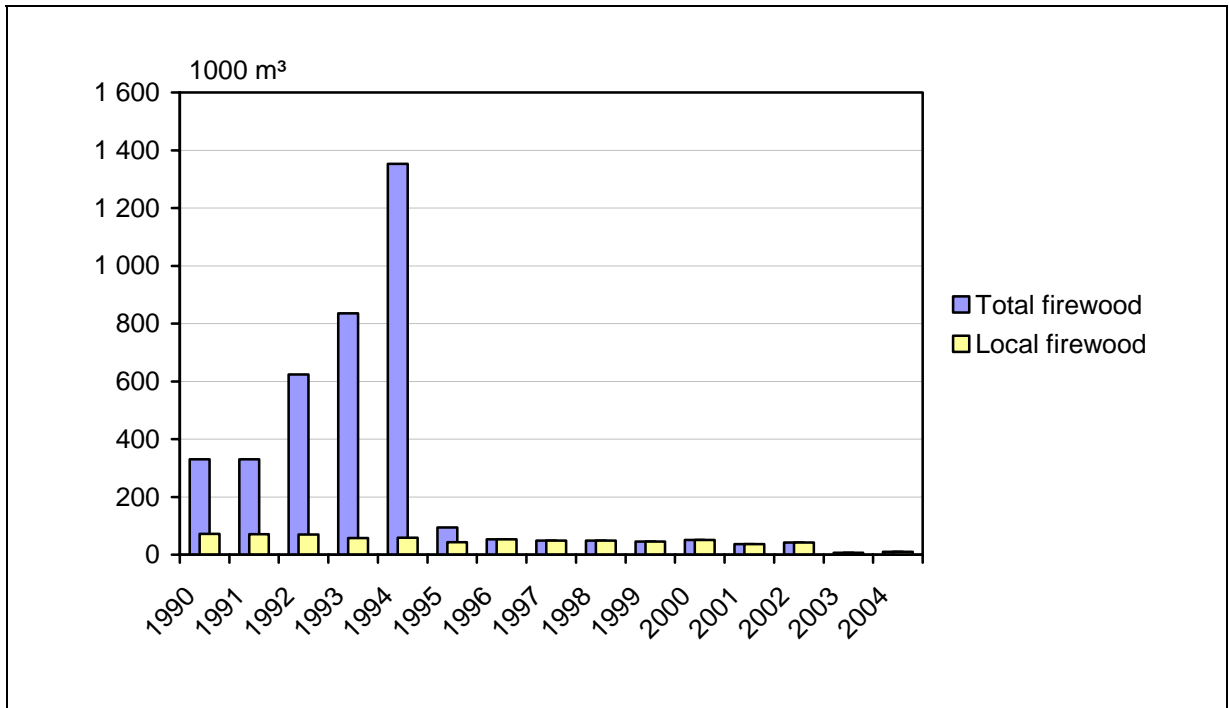
Commercial logging has been forbidden in Azerbaijan since 1991. Figure 1.2 provides for the statistics on improvement and sanitary felling in 1990-2004. According to the official data, local production of firewood was not practiced in the given period.

After the collapse of the Soviet Union, firewood has played an unimportant role in the country's fuel and energy balance. Its' share varied between 2-9% during 1990-1994, 0.3-0.6% in 1995-2002 and 0.03-0.06% during 2003-2004.

Big volumes of timber and wood products are imported to Azerbaijan (about 1.19% of the total import) while the export constitutes only 0.4% of the total goods exported from the country.

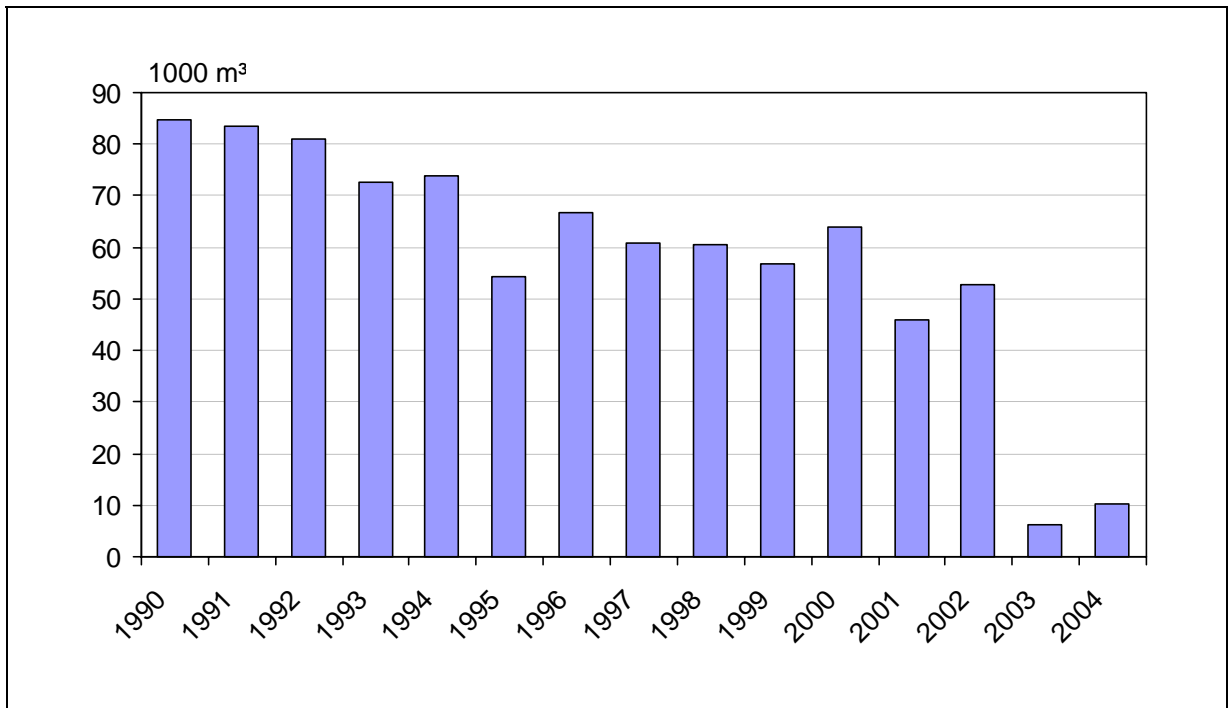
The State Statistical Committee does not produce information on what kinds of wood species (local or imported) are used for the production of exported timber and wood products – charcoal, deciduous wood, veneer sheet (with the exception of conifers which are not naturally growing in Azerbaijan and are either imported or re-exported from the country). Therefore, it is not possible to assess the share of local illegally logged wood in the total export.

**Figure 1.1 Firewood Production in Azerbaijan in 1990-2004**



Source: Data on 1990-2000: former PA “AzerForest”; and data on 2001-2004: Ministry of Ecology and Natural Resources

**Figure 1.2 Sanitary and Improvement Felling in Azerbaijan in 1990-2004**



Source: Data on 1990-2000: former PA “AzerForest”; and data on 2001-2004: Ministry of Ecology and Natural Resources

**Table 1.1 Value of Imports and Exports of Timber and Wood Products to Azerbaijan in 2003-2004**

Year	Import	Export
	USD million	
2003	31.4	1.0
2004	38.8	0.9

**Table 1.2 Imports and Exports of Timber and Wood Products to Azerbaijan in 2003**

Description	Unit	Imports	Exports
Firewood	metric ton	1	55
Coniferous timber	m <sup>3</sup>	29 4322	986
Oak timber	m <sup>3</sup>	525	..
Deciduous timber	m <sup>3</sup>	13 175	1 400
Coniferous logs	metric ton	122	..
Deciduous logs	metric ton	1 173	..
Various veneer sheet	metric ton	129	1 883
Veneers and dicts	m <sup>3</sup>	41 455	..
Particleboard	m <sup>3</sup>	9 7571	..
Fiberboard	m <sup>3</sup>	10 298	..
Parquet	m <sup>2</sup>	28 706	..
Railway sleepers	m <sup>3</sup>	2 196	..
Other wood construction materials and products	metric ton	940	..

## 1.2 Ratified International Conventions

Azerbaijan is part to the following international conventions touching upon the forestry management issues:

- UN Convention on Combating Desertification in the Countries subject to Sever Droughts and/or Desertification, especially in Africa (ratified on 28 April 1998)
- Convention on the International Trade of Wild Flora and Fauna Species that are on the verge of total extinction (CITES) – ratified on 23 June 1998
- European Convention on the Protection of Wild Nature and Environment (ratified on 28 October 1999)
- Convention on the Biological Diversity (ratified on 14 March 2000)
- UN Framework Convention on Climate Change (ratified on 18 July 2000)

## 1.3 Battle Against Illegal Logging

Illegal logging is one of the most critical problems challenging government in the area of biodiversity and wildlife conservation, battling of desertification and climate change mitigation. Azerbaijan is party to all international conventions that regulate every single abovementioned issue. Legal and natural persons exposed as illegal loggers as well as state officials lenient towards illegal logging bear personal material (penalty provisions),

administrative (reproof, demotion, discharge) and criminal liability (penalty provisions, arrest) according to the national legislation. Control against illegal logging is implemented by the respective departments of MENR (Forest Development Department, Environmental Protection Department and their local subdivisions), law machinery, local state authorities and municipalities.

#### **1.4 Control Over the Law Violations**

Control is implemented in accordance with the state constitution and acting administrative and criminal legislation of Azerbaijan. Corruption, which also persists in forest protection, is a critical problem. A presidential decree No. 582 (13 January 2004) approved the national law on battling the corruption. The main objectives of the decree are:

- Identification, prevention and liquidation of outcomes of offences related to corruption
- Insurance of social justice, human rights and freedoms
- Creation of favorable conditions for economic development, provision of lawfulness, transparency and effectiveness in the activities of central and local government authorities and officials
- Strengthening of people's trust in the government bodies
- Recruitment of qualified personnel to the central and local government authorities
- Arrangement of the conditions that prevent the emergence of offences related to corruption

The abovementioned law provides for the penalty sanctions against legal entities and natural persons exposed as giving or receiving material goods in exchange for allowing or doing illegal activities, including forbidden forest use.

#### **1.5 Relevant State Programs**

- (1) National Program on Environmentally Sustainable Social and Economic Development (approved by presidential decree No. 1152 from 18 February 2003).
- (2) National Program on Forest Rehabilitation and Development (approved by presidential decree No. 1152 from 18 February 2003).
- (3) National Poverty Reduction and Economic Development Program for 2003-2005 (approved by presidential decree No. 854 from 2 February 2003) – supported by IMF and WB. One of the program goals is to support poverty alleviation (create infrastructure and job opportunities) in rural areas in order to mitigate man-caused impact upon natural forest resources.
- (4) National Program of the Regions' Social and Economic Development for 2004-2008 (approved by presidential decree on 11 February 2004). One of the program's objectives is to mitigate man-caused environmental impact through achieving social and economic development of the rural regions.
- (5) Small Matched Grants Program for the Caspian Region: implemented by the Caspian Environmental Program since 2000 with funding support of EU TACIS and GEF. Program's main objectives are to ensure the sustainable development of local communities and conserve biodiversity (to include forest resources) in the coastal areas of Caspian states.

- (6) Small Grants Program of BP is implemented since 2000: main objective of the program is to conserve and rehabilitate the environment of Caspian Sea, its coastal territories and hydrocarbon transportation corridor.
- (7) Grants Program of the Critical Ecosystem Partnership Fund (CEPF) has started in 2004 with funding support of WB, GEF, Conservation International, McArthur Foundation and government of Japan. The Program's main objective is to preserve and rehabilitate the biodiversity in Caucasus, including forest resources.
- (8) Rural Environment Program supported by GEF, WB and Government of Japan has been submitted to the government for approval. One of the program's objectives is to achieve sustainability of local communities, protect and rehabilitate local ecosystems as well as the establishment of the Shakhdagh National Park.

## **2. DEFINITION OF ILLEGAL LOGGING**

According to accepted felling rules any type of felling implemented without felling license is regarded as illegal logging. The issue of firewood collection and cutting is not covered by the national definition as these activities are officially prohibited.

The national definition conforms to the definitions in the Terms of Reference (TOR) by the following:

1. Beyond the concession zone
2. By exceeding the accepted norm
3. In the specially protected areas
4. Without respective permissions
5. In the restricted areas
6. Species under protection
7. With counterfeit license
8. Upon the agreement with local businesses on purchase of logs from the protected areas
9. Felling of trees which did not reach or exceeded defined sizes
10. Giving kickbacks to get the permission to felling
11. Illegal transportation, trade and smuggling of timber
12. Wood processing without the respective licenses, in contradiction to the environmental protection, social security and labor legislation

## **3. ILLEGAL LOGGING**

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

Illegal logging volumes are not counted by the statistical bodies. This data is for internal reporting only by the responsible agencies and cannot be verified and compared with the other official sources of information. Comparative analysis is carried out based on existing independent research proceeding from minimum consumption estimations.

Based on the national definition of illegal logging following types of illegal logging may be identified:

- felling of trees for firewood by local households
- felling of trees for using as merchantable wood by different businesses
- felling of trees by local entrepreneurs for charcoal production

Main types of fuel consumed by the households, industrial and agricultural enterprises in Azerbaijan are natural gas, electrical energy and heating oil. Before 1990, excessive demand was satisfied by the import of charcoal and firewood: widely used were also the by-product fuel resources (waste products of woodworking and agricultural production, firewood produced during cleaning cutting, sanitary and improvement felling). Nevertheless, rural populations of foothill and mountainous settlements faced a fuel shortage and satisfied the demand mainly through additional (unplanned) cleaning cutting and illegal logging. The volume of this illegal harvest was estimated at 5 000-5 500 m<sup>3</sup>/a by the official data of the former Ministry of Economy, whereas independent experts estimated it at 140 000-150 000 m<sup>3</sup>/a.

The consumption of firewood per person is estimated at 1.97 m<sup>3</sup>/a. On the other hand, local environmental NGOs estimated that an average family of 5.3 persons living in the mountainous and upper mountainous settlements consumes 10 m<sup>3</sup>/a of wood or 1.89 m<sup>3</sup>/a per person. In this case, the consumption would total at 2.55 million m<sup>3</sup>/a, and 5% of this amount (0.13 million m<sup>3</sup>) is due to cleaning cutting while the rest 95% (2.42 million m<sup>3</sup>) are produced through illegal logging.

Domestic merchantable wood is used mainly for manufacturing of parquet, containers for carriage of fruits and vegetables, door blocks in the elite housings, veneer sheets for furniture trimming, etc.

1. **Parquets.** According to the State Statistical Committee, 1.3 million m<sup>2</sup> of new dwellings in 2003 and 1.16 million m<sup>2</sup> in 2004 were introduced in Azerbaijan. Up to 20% of the floor space in the new houses (260 400 m<sup>2</sup> in 2003 and 231 200 m<sup>2</sup> in 2004) is covered by parquet. Parquet imports to Azerbaijan were 28 700 m<sup>2</sup> in 2003. The remaining 231 700 m<sup>2</sup> was produced locally through illegal logging of valuable wood species, such as walnut, oak, beech and ash. There is no statistical data available for 2004 yet. However, it is assumed that the domestic production of parquet exceeded 200 000 m<sup>2</sup>. This corresponds to 11 000-13 000 m<sup>3</sup> of roundwood sourced from illegal logging.
2. **Construction materials.** According to NGO estimations, the use of wood as construction material exceeds official volumes considerably. Studies demonstrate that each family in the mountainous and upper mountainous regions uses 1 m<sup>3</sup>/a of roundwood for other purposes than firewood, which corresponds to 424 000 m<sup>3</sup>. According to other NGO estimations, local valuable wood used during new dwelling construction constitutes at least 50% of the total dwelling area, which corresponds to 32 000 m<sup>3</sup>/a of illegal logging bringing the total to 456 000 m<sup>3</sup>/a.
3. **Containers.** According to the information of the State Statistical Committee, 140 000 metric tons of fruits and vegetables were exported from Azerbaijan in 2003. A total of 5.6 million boxes were needed in 2003 alone, which corresponds to about 25 000 m<sup>3</sup> of illegal logging.
4. Volumes of forest resources logged illegally for the production of door blocks, veneer sheets for furniture trimming are hard to be estimated as there is no statistical data and other information available (amount of manufacturers, market demand, etc.).

In Azerbaijan, the national cuisine (kebab, etc.) cooked on charcoal is very popular. The charcoal consumption is estimated at 17 300 t/a, which corresponds to 104 000 m<sup>3</sup>/a illegally harvested timber.

**Table 3.1 Expert and NGO Estimates of Illegal Logging in Azerbaijan**

Logging type	Expert estimates	NGO estimates
	m <sup>3</sup> /a	
Firewood production	1 690 000	2 550 000
Merchantable wood production	11 000	456 000
Production of wooden carriers	25 000	25 000
Charcoal production	104 000	104 000
<b>Total</b>	<b>1 830 000</b>	<b>3 135 000</b>

Retrospective estimation of illegal logging volumes during 1989-2005 based on felling intensity and volumes in 2005 as well as the socioeconomic conditions and fuel and energy balance of the country for the estimated period gives the conclusion that the total 16-year volume of felling not included into the official statistics makes up 24 million m<sup>3</sup> as estimated by the national expert, and 42 million m<sup>3</sup> as estimated by NGOs.

According to the last calculation of country's forest resources made as of 1 January 1988, the total growing stock was 121 million m<sup>3</sup>. About 22 million m<sup>3</sup> of this is located at the territory occupied by Armenia. According to the forest management design index, the annual growth rate of the trees (with the exemption of occupied territories) amounts to 1.3 million m<sup>3</sup>/a (22 million m<sup>3</sup> for the entire period of 1988-2005). According to the official statistics the legal felling volumes for the same period (sanitary and improvement felling and cleaning cutting) were 1.1 million m<sup>3</sup> while the illegal logging volumes reached 0.35 million m<sup>3</sup>, making the total of 1.45 million m<sup>3</sup>. Thus, the total growing stock volume except for the occupied territories had to reach 120 million m<sup>3</sup> by 1 January 2005. However, based on the above explained independent estimations it is possible to assume that the real growing stock volume is 95.7 million m<sup>3</sup>. Therefore the absolute reduction in the volume of growing stock reached 3.1 million m<sup>3</sup> as compared to the baseline 1988 (with the exception of occupied territories).

The same indicators are as follows, according to NGO estimations:

- Actual current growing stock: 78.3 million m<sup>3</sup>
- Absolute reduction in the volume of growing stock in forests: 20.5 million m<sup>3</sup> (with the exception of occupied territories)

Given that only 784 000 ha of 926 700 ha (to exclude 257 000 ha situated at the occupied territories) of the forestry fund are covered with forests, and 100 000 ha of this territory are in the national parks and state reserves, it is possible to come to the conclusion that estimated absolute reduction takes place within 684 000 ha and leads to their intensive degradation.

### 3.2 Types of Illegal Logging

In Azerbaijan the illegal logging of forests could be divided into two categories: logging by businesses for commercial purposes and logging by local population for firewood production. Both categories of logging occur due to the inadequate forestry management system at the local as well as the national levels, and are not in direct relationship with the poverty level. Until 1 January 2005, the government provided the population with fuel and energy resources at a reduced tariff (1/3-1/2 of their prime cost):

- natural gas                      USD 0.016 per m<sup>3</sup>
- heating oil                      USD 0.18 per liter
- liquefied gas                    USD 0.16 per liter
- electricity                        USD 0.02 per kWh

People are fully capable of paying the existing tariffs, while the actual reason of logging is in insufficient volumes of the supply of fuel and energy resources to the regions. Shortage of supply is due to the scarcity of domestic resources as well due to the technical and financial implications related to the import of some types of fuel (coal and charcoal, shale oil, secondary resources). On the other hand, the alternative energy production sector (wind and solar energy, biogas, different recycled resources to include raw materials produced during cleaning of the oil-contaminated lands, associated petroleum gas, bituminous sandstone, etc.) is still poorly developed. At the same time, part of the poor population has to illegally log the additional forest for further resale.

Recently, based on IMF recommendations, the government has revised and increased tariffs for natural gas up to USD 0.05 per m<sup>3</sup>; also the tariffs for electricity will be increased. Unless social protection measures are undertaken these changes will affect the poverty level in the regions and especially in the mountainous and upper mountainous territories with high levels of unemployment and low income. Aggravation of the level of life and decrease in the paying capacity of even those groups that currently use energy supplied by the government will considerably increase man-caused impact upon the region's forest resources and subsequently result in their intensive degradation and reduction of forest density. According to this scenario it is possible to expect twofold increase in the illegal logging volumes.

The commercial illegal logging is due to insufficient volumes of imported carving wood and wood wares (parquet, etc.) produced of the valuable wood species for use in the construction sector. In accordance with the above-mentioned data, excessive demand as compared to the import volumes was as follows in 2004:

- 202 500 m<sup>2</sup>: 28 700 m<sup>2</sup> = 7 times (by the expert estimations)
- 578 000 m<sup>2</sup>: 28 700 m<sup>2</sup> = 30.6 times (by NGO estimations)
- Domestic valuable timber costs by USD 100-150/USD 60-70 less than the imported wood (figures are average with VAT excluded)

Forest logging for the production of containers is due to the following reasons:

- Lack of the import of cheap timber and/or ready containers
- Absence of local alternative production of plastic containers while there is the sufficient resources for that

### 3.3 Exports of Illegal Timber

Timber produced as a result of illegal logging is removed unlawfully without the respective permission and registration by taxation and statistical authorities. Removal is carried out in individual freight transportation directly to the destination points of sale (local houses in case with locally used wood, and factories located mainly in Baku, Ganja and Sumgait and other large towns in case with the merchantable wood).

According to the State Statistical Committee, wood is not exported to the international market: only the re-export of wood products and articles produced locally from wood imported mainly from Russia and some tropical countries is practiced. However, there is a possibility that sometimes locally produced wood is exported as re-exported goods. There is no objective information available in order to study the assumed volumes. Once such practice exists, the responsibility must be laid upon the State Customs Committee, which is not capable (or willing) to ensure adequate inspection of the respective documentation for exported goods.

### 3.4 Impact on Government Finances

The Forestry Protection and Regeneration Fund received USD 312 500 from the sale of wood produced as a result of sanitary felling and cleaning cuttings implemented in 2004. USD 215 300 from penalty sanctions were also transferred to the fund.

In order to prevent illegal logging it is only possible to import firewood, coal and charcoal from Russia and Ukraine and sell it to the local population at a below-market price. Illegal logging does not stimulate the alleviation of unemployment rate as the produced firewood is mainly used at the local households and is not commercialized.

**Table 3.2 Value of Illegal Logging in Azerbaijan in 2004**

	Price	Expert estimate		NGO estimate	
	USD/m <sup>3</sup>	m <sup>3</sup>	USD million	m <sup>3</sup>	USD million
Firewood	5.55	1 690 000	9.4	2 550 000	14.2
Merchantable wood	65.31	36 000	2.4	481 000	31.4
Charcoal	25.51	104 000	2.6	104 000	2.6
<b>Total</b>	–	<b>1 830 000</b>	<b>14.4</b>	<b>3 135 000</b>	<b>48.2</b>

### 3.5 Threats to Environment

Illegal logging is one of the most serious environmental threats for biodiversity and it intensifies desertification processes in the country. The main factors causing desertification are:

- (i) destruction of green cover due to the selective and spatial logging of forests
- (ii) degradation of mountainous forests and reduction of their upper limits as a result of grazing in the mountainous areas

- (iii) soil cover degradation due to illegal logging and cattle grazing in the forestry areas (270 400 ha of forests are subject to water and wind erosion): this leads to destruction of forest floor and humus cover that causes the reduction of soil's water retention capacity and increased water flow into the rivers
- (iv) disturbance of the regime of mountainous rivers and intensification of mudflows as a result of mountain forest deterioration
- (v) movement of mountainsides and intensification of landslides in the mountain river valleys as a result of soil cover destruction
- (vi) soil and land cover degradation as a result of recreation activities
- (vii) contamination of forests by industrial emissions

Another factor of forest degradation is the change of the qualitative composition of forests due to illegal logging of mainly the valuable species of merchantable wood, e.g. oak, maple, beech, lignum vitae, etc. which are fundamental to forest sustainability and/or included in the Red Book.

Another issue of forest degradation is the extermination of forests in the territories occupied by Armenia, which include 21.5% of the total forestry area of Azerbaijan. It is estimated that around 15% of Garabagh forests are logged and either used for production of wood articles or unlawfully exported to Armenia, Iran and other countries. These estimations are indirectly confirmed by 1993 report of UNECE which says that in 1993 Armenia processed 206 600 m<sup>3</sup> of wood as compared to 58 000 m<sup>3</sup> processed in 1989, while total growing stock of Armenia is 31 million m<sup>3</sup>. Given the estimated cost of 1 m<sup>3</sup> of wood (USD 24.45), the total value of the growing stock in the occupied territories was USD 549 million in 1988. The total value of illegally logged timber in Garabagh is estimated at USD 82 million.

## **4. GOVERNANCE**

### **4.1 Policy Framework**

#### **4.1.1 Goals**

The principles of the national environmental protection policy are defined in the "Environmental Conception of Azerbaijan Republic" developed in early 1990s by the State Committee of Ecology and Environmental Management. The conception is based upon the practical environmental security principles reflected in Agenda 21. Main attention among the conception's priorities and directions is paid to the protection of biosphere, including the country's forest resources.

The Ministry of Ecology and Natural Resources is the state agency responsible for implementation of the national environmental protection and management policy, including forest protection and regeneration strategies. The Ministry implements its management functions according to its rules and responsibilities within the framework of following programs:

- National Program on Environmentally Sustainable Social and Economic Development (approved by presidential decree No. 1152 from 18 February 2003);
- National Program on Forest Rehabilitation and Development (approved by presidential decree No. 1152 from 18 February 2003);
- National Poverty Reduction and Economic Development Program for 2003-2005 (approved by presidential decree No. 854 from 10 February.2003);
- National Program on Social and Economic Development of the Regions for 2004-2008 (approved by presidential decree from 11 February 2004).

The main objectives in the area of forest resource management are as follows:

- Identification of main government policy directions in forest management;
- Implementation of state control over the observance of forest legislation, adoption of normative acts on forestry fund and its usage principles;
- Organization and maintenance of the state registry of forestry fund, state forestry inventory, implementation of forestry and forest management monitoring;
- Implementation of economic policy in the area of forest management: planning and implementation of forest management and rehabilitation activities; provision of the rational use of forest resources; involvement of internal and foreign investments; identification of the categories of payments for the use of forest resources to include payments for unsanctioned logging; planning and spending of funds of the Forestry Protection and Regeneration Fund;
- Conservation and protection of forest resources based on scientifically grounded management principles;
- Biodiversity conservation in forest ecosystems;
- Increase of environmental capacity: implementation of measures aiming at the strengthening of water protection, protective, sanitation, recreation and other functions of the forests;
- Implementation of inter-agency reporting in the area of forest management practices, establishment of the rules of respective state statistical reporting;
- Implementation of international cooperation in the area of use, protection and conservation of forest resources and forestry regeneration: conclusion of agreements and their implementation.

Given that Azerbaijan's forest resources belong to the first category of forests, their management does not imply direct economic objectives (use of forest resources for commercial purposes) within the framework of country's perspective social and economic development. The National Program on Forest Rehabilitation and Development suggests that within the five-year period (2003-2008) new forest plantations at the total area of 44 700 ha should be established and agroforestry plantations with high-growth wood species should be established to cover an area of 7 360 ha. At the same time it is planned to use forest resources within the framework of poverty alleviation and regions' development objectives, to include:

- Use of products of the forests by local communities (harvesting of wild fruits, berries and herbs; production of souvenirs from utensils from wood) in order to achieve their sustainable development;

- Involvement of local labor in forest protection, rehabilitation and development within the framework of National Program on Forest Rehabilitation and Development and National Program on Environmentally Sustainable Social and Economic Development;
- Development of ecotourism and enhancement of recreation capacity accompanied by infrastructure development in the villages with involvement of local labor.

#### **4.1.2 Illegal Logging Policy**

Policy in the area of battling illegal logging consists of the control over the condition, use, protection and conservation of forest resources through meeting the following requirements: observance of (i) forest use requirements by all the legal and natural persons; and (ii) the logging, sanitary and improvement felling rules.

The control functions are mandated to the following parties:

- Employees of local subdivisions of (forestry protection and rehabilitation agencies) of the forestry development department of MENR: these employees perform their official duties on a regular basis and protect forests from illegal logging;
- Environmental protection department of MENR, employees of which implement regular *in-situ* monitoring of the quality of forest resources.

#### **4.1.3 Main Reasons of Illegal Logging**

Illegal logging of forests in Azerbaijan is due to the following reasons:

- (1) Shortage of fuel and energy resources in the villages due to reduction of domestic reserves (especially gas) in the country and insufficient volumes of import.
- (2) Logging by poor sections of the local population and refugees living in the forestry areas and incapable of generating normal income from their farmlands, with the view of further commercialization.
- (3) High level of demand for wood materials and articles produced from the valuable plant species due to the rapid development of the construction sector, and low volumes and high costs of the imported materials.
- (4) Poor educational level and insufficient quantity of the personnel of forestry agencies and MENR subdivisions, and their low material and technical supply (shortage of forest cordons, vehicles, mobile communication means, uniforms and service weapons).
- (5) Low salaries of the employees of forestry agencies (foresters and forest wardens) vary between USD 30-35 which are 50% of the accepted cost of living and 30% of the official monthly wage rate (USD 98.5) in the country. Low salaries against high responsibilities lead to personnel fluctuation.

The poor qualifications and inadequate wages lead to disciplinary and legal offenses among the employees. According to MENR information, low level of the organization of forest management works in 2004 led to the dismissal of 173 and reprimands to 74 employees. Information on concrete penalties is for the internal use of MENR only and is not available for independent experts.

Considerable differences between official data (information developed by MENR and taken as baseline for the official statistics and forest management activities) and independent expert estimations (estimations of the national expert that base upon the long-term statistical data analysis, information collected during meetings with representatives of government, scientific and non-government institutions as well as the local population) leads us to the conclusion that the government policy in the respective area is ineffective and needs to be revised. Main problems in this field are:

1. Subordination of the forestry sector to the MENR causing two important difficulties:
  - Liquidation of the PA “Azerforest” in 2001 and its inclusion into newly established MENR as well as the lack of financing and material and technical supply to local forestry protection entities caused outflow of qualified cadres from central and local managerial bodies. All these factors reduced the quality and effectiveness of the forest management system, including control over illegal logging.
  - Combination of production (regional forestry development entities) and control (environmental protection department) functions under the aegis of a single government body may indirectly stimulate law violations.
2. Poor salaries of the managerial and executive staff working in local forestry entities, and absence of material encouragements for unveiling illegal logging incidents. This is the main factor leading to corruption and revenue concealment.
3. High poverty level which forces part of the population (including people responsible for forestry protection) infringe the law.
4. Shortage of domestic fuel and energy resources, and their irrational use (low level of energy efficiency and large volumes of leakage in the production facilities).
5. Unused capacity of alternative energy sources (growing and selling of fast growing wood species, solar energy, wind energy hydrothermal energy, small and big microhydroenergy, biogas, bituminous sandstone, etc.).
6. Inconsistency between the domestic consumption volume and the structure of import of fuel and energy resources, coal and charcoal, firewood, etc., are not imported.
7. Inconsistency between the domestic consumption volume and the structure of import of merchantable wood and timber products of valuable species. This factor also encourages corruption and revenue concealment both among the entrepreneurs and foresters.
8. Inadequate forest management policy.

## **4.2 Legal Framework**

### **4.2.1 Main Laws**

The main laws regarding forestry in Azerbaijan are:

- Forestry Code of Azerbaijan Republic, passed by the presidential decree No. 424 on 30 December 1997
- Law on Environmental Protection, passed by the presidential decree No. 678 on 08 June 1999

- Law on Endorsement of Azerbaijan of the European Convention on “Conservation of Wildlife and Environment in Europe”, passed by the presidential decree No. 730 on 28 October 2000
- Law on Specially Protected Areas and Objects, passed by the presidential decree No. 840 on 24 March 2000
- Criminal Code of Azerbaijan Republic, section “Environmental Offenses”, articles 259, 260 and 261. Passed on 30 December 1999
- Code of Administrative Offenses of Azerbaijan Republic: section “Administrative offenses against the rules of environmental protection, nature use and environmental security”. Articles 70, 91-95.
- Procedures of Bringing to the Account for the Detriment Caused to the Forestry Resources, passed by decree of the Cabinet of Ministers of Azerbaijan Republic No. 636 on 27 December 1993
- Rules of Forestry Logging, passed by decree of the Cabinet of Ministers of Azerbaijan Republic No. 38 on 15 March 1999
- Rules of the Implementation of State Control over Quality, Use, Conservation and Protection of the Forestry Resources and Forestry Regeneration, passed by decree of the Cabinet of Ministers of Azerbaijan Republic No. 15 on 3 February 2000
- Rules of the Protection and Conservation of Forestry Resources and Forest Regeneration, passed by decree of the Cabinet of Ministers of Azerbaijan Republic No. 78 on 1 May 2000.

#### **4.2.2 Penalty Examples**

Violators of rules are penalized by material, administrative and criminal sanctions applied in accordance with the “Procedures of bringing to the material account for the detriment caused to the forest resources” (approved by decision of Cabinet of Ministers No. 636 from 27 December 1993) which define penalty tariffs for the specific types of violation. Enforcement of these sanctions has strong environmental and economic effect as the received money helps with the implementation of annual forest rehabilitation and administrative activities. These receipts covered up to 40% of the expenditures related to implementation of mentioned activities during 1994-2000.

Fines issued in relation to illegal logging totaled USD 223 900 (55 000 m<sup>3</sup>) in 2003 while the successfully collected amount totaled USD 65 100 (29%). The respective figures are USD 215 300 (51 000 m<sup>3</sup>) and USD 92 800 (43%) in 2004. 600 cases are reviewed in courts as of 1 January 2005.

Penalties and fines as well as administrative and criminal liabilities are imposed on natural and legal persons for following types of offenses:

- Damaging and felling of young trees (administrative offense): 30-40 times the minimum wage for natural persons, 70-80 times the minimum monthly wage for legal entities.
- For felling and damaging of trees and bushes, exhumation of stumps (administrative offense): 30-40 times the minimum monthly wage for natural persons, 70-80 times the minimum wage for legal entities.

- For forest exploitation without observing objectives and requirements of wood ticket (administrative offense): 5-45 times the minimum monthly wage for natural persons, 100-130 times the minimum wage for legal entities.
- For illegal logging of forest (criminal offense): penalty at 500-1 000 times the minimum monthly wage or up to one year of forced labor / six months imprisonment.

The reparation of damage by mentioned fines is not effective as the accepted minimum monthly wage is USD 1.12 and has not changed since the Procedures of Bringing to the Account for the Detriment Caused to the Forestry Resources were passed in 1993. However the minimum wage level has increased to USD 25.5 as of 1 January 2005. Official minimum monthly wage is accepted as baseline for calculating both legal entities' and natural persons' penalty rates.

Production of charcoal and firewood by natural persons and legal entities is prohibited by the national legislation and forest management rules.

#### **4.2.3 Shortcomings of the Legal Framework**

- Unsatisfactory records for identified offenses.
- Inadequacy of mandate of the employees of forestry management entities and inspection bodies in identification and arrest of the violators of law.
- Delays in the legal investigation in courts.

#### **4.2.4 Official and Commercial Cost of Merchantable Wood**

As stipulated by the specialists of forest management agencies, scientific-research institutes and independent experts, officially established price of USD 65 per m<sup>3</sup> for timber produced during sanitary felling and cleaning cutting is considerably lower than the market price of the merchantable wood produced from valuable timber species. Commercial price of the domestic merchantable wood depends on species and their quality and varies between USD 70-150 and USD 450-600 per m<sup>3</sup>.

### **4.3 Monitoring and Control System**

#### **4.3.1 Parties Responsible**

Forestry monitoring comprises the monitoring system of the use of forestry resources as well as the situation and dynamics assessment and forecast, with the purpose of forestry use, conservation, protection and regeneration management. The monitoring and control of *economic, qualitative and quantitative characteristics* of forests is implemented by the Forestry Development Department of MENR. The monitoring and control of *environmental characteristics* of forests is implemented by the Environmental Protection Department of MENR. The monitoring and control of the *forestry condition and use* (including logging) is implemented by the Environmental Protection Department of MENR.

### **4.3.2 Number of People Working in the Forest Management System**

At total of 2 550 people are working in the forest management system. Over 1 800 people are directly involved in the law enforcement process (employees of the regional forestry protection and regeneration enterprises).

### **4.3.3 Methods of Law Enforcement**

The following methods are used:

- Regular visits of forestry sites by the responsible forest guards;
- Autumn and spring revision visits in order to assess the work quality of foresters and facts of unregistered illegal logging;
- Control revision by visits by the managerial staff of regional forest management enterprises;
- Planned and control visits of the employees of Environmental Protection Department of MENR;
- Provision of privileged information by local population, executive power officials, municipalities, central and local law machinery.

### **4.3.4 Availability of Operative Means for Monitoring and Control**

The technical equipment of the employees of local forestry enterprises responsible for forest monitoring and control is at a poor level: there are practically no vehicles and radio facilities; mobile phones of the employees malfunction in the countryside.

### **4.3.5 Responsibility for Offenses**

Review of the official and independent expert data on the illegal logging and their correlation indicates that the proportional relationship relation between revealed and unrevealed cases of illegal logging is 1:6. Cases of arrest and conviction of offenders are not registered. Total number of ascertained incidents of illegal logging is for internal use of responsible bodies only and is not accessible. 489 cases in 2003 and 600 cases in 2004 were submitted to the courts. Among cases raised in 2004, 59 are processed at the Office of Public Prosecutor, 118 at the police offices, and 423 by courts.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

The analysis of the information brings us to the conclusion that the following critical areas need to be reformed:

- 1. Low level of the social and economic development in the rural areas.** This factor negatively affects local population and influences the status of illegal logging. Improvement of living standards will increase the capacity of purchasing other-than-

wood fuel and energy resources to include renewable energy sources. Currently the government makes effort to improve the situation through its programs on poverty reduction and social and economic development of the regions. The main focus of these programs is the development of local industries, agriculture and infrastructure and, therefore, the opening of new job opportunities, based on rational use of local resources, incentives, credit and the involvement of domestic and foreign investments. These efforts must be continued and strengthened in the long-term perspective with the condition of the assessment of their impact upon the environment and specifically upon forest resources.

At the same time, practically under the pressure of international financial organizations (IMF, WB), the government decided to increase consumer prices for energy resources, which will definitely impact the illegal logging volumes for firewood production, given poor living standards and solvency of the local population who are incapable of purchasing energy at the increased cost. This serves as an additional factor of the negative impact upon forests of the difficult social and economic situation of the local population in rural areas. In this regard, it is extremely important that the government expresses political will to resist pressure of the international financial institutions and makes them amend their policy.

2. **In order to ensure the rational use of local resources** it would be reasonable to develop and implement activities in the following areas: (i) introduction of alternative energy sources to completely satisfy the demand of local population and businesses in energy and fuel without laying pressure upon country's forest resources; (ii) establishment of agroforestry plantations for growing valuable merchantable wood species with their further commercialization; and (iii) establishment of the production of non-expendable plastic carriers for storage and transportation of fruits and vegetables.
3. **Inadequate structure of fuel and energy balance** (in terms of the import of fuel and energy resources and merchantable wood). This factor negatively affects country's forest resources. Given the shortage of the domestic fuel and energy reserves, especially gas, and either the destruction or absence of gas-transport and gas-distributing systems (in the upper mountains), ensuring uninterrupted gas supply will become problem and take long time even when the new gas deposits are explored. Moreover, existing poverty level among big section of the population will make them incapable of purchasing gas at the market prices without social benefits. Therefore, it is reasonable to import the necessary volumes of coal, charcoal, firewood and shale oil from abroad, and sell them to the local population at a reduced price, if necessary, in order to minimize illegal logging volumes. Also it is important to increase the import volumes of the merchantable timber and goods produced from valuable wood species, the demand for which is high in the construction and furniture production sectors.

In order to solve these problems it is recommended that the government enables preferential conditions for entrepreneurs willing to import respective fuel and wood resources to the domestic market. In particular it is necessary to revise (reduce or remove) custom duties and income taxes, provide incentives, guarantee state purchase of the imported firewood, create favorable conditions for transportation and sale of the imported fuel resources, eliminate the corruption in the respective areas, etc.

#### **4. Poor efficiency of the forestry management system when it comes to battling the illegal logging**

- Concentration of both the management and control functions in one government body MENR; responsible divisions of the ministry may provide incorrect or non-objective information on the situation with illegal logging volumes (in case of regional forestry protection and regeneration enterprises) and the logging prevention and management activities (in case of the control/inspection services of the ministry) either with the view of reporting the high quality of work or for mercenary purposes. In this relation, it is reasonable to establish forest protection, regeneration and development service as an independent managerial body with full technical resources and strengthened mandate to battle forest use violations. MENR should remain responsible for monitoring the condition of forests, state control over the quality of activities on forest protection, conservation, regeneration and development as well as for the effectiveness of illegal logging prevention measures.
- Inadequate budget policy which must be revised to increase allocations that address wages of the employees of forestry protection and regeneration bodies and stimulate fight against illegal logging. Increase of wages and improvement of the incentive system for revealed violations will increase the level of worker's responsibility for their work and eliminate main source of the corruption.
- Incompliance of penalty rates with the cost of detriment caused by illegal logging. It is necessary to increase the fixed level of a minimum wage (USD 1.12) taken as baseline for fining, to the currently existing one – USD 25.5. Also it is necessary to develop an additional sum index mechanism depending on the changing level of minimum wage.
- Unclearity of the rights of foresters to identify, detain and take the violators to police. It is necessary to develop legal rules clearly defining foresters' rights and obligations.
- Weak material and technical basis of forest protection and regeneration enterprises, which need re-equipment (based on green patrol type) and supply of means of transport (vehicles, motorcycles, horses), aerial observation means (helicopters), communication facilities (radio and mobile), different regular assets and uniforms, forest cordons, etc.
- Low qualification level of middle and junior level personnel of the regional forestry protection and regeneration enterprises. This factor is related to the instability of personnel due to different reasons (age, low wages against high responsibilities, dismissals for disciplinary and production offenses) and leads to replacement of qualified cadre with non-specialist personnel. It is necessary to organize education of young specialists in special colleges and develop training programs for forestry workers.
- As an alternative it is necessary to change (temporarily or permanently) forest use strategy so that it complies with the demands of economy and local population. Given the poorly controlled illegal logging practices, the deficit of fuel and energy resources in the mountainous upper mountainous regions, and the unsatisfied demand for merchantable wood, it would be reasonable to officially allow the improvement felling, interim use felling and official forest-use by natural persons and legal entities in accordance with Forest Code of Azerbaijan Republic. Implementation of this scenario by government would considerably reduce the corruption and increase earnings of the Forestry Protection and Regeneration Fund

and state budget. Inclusion of forest resources into the economic circulation would help to increase financing for activities on forestry protection, regeneration and development.

- In the long-term perspective, as the economic welfare grows and public consciousness improves, the question of forests privatization may come to the agenda. This issue will then require making amendments to the existing legislation, which will leave government the right to monitor forest conditions and control forest use correspondence with forest legislation. Also it is possible to practice privatization of certain lands that do not belong to the forestry fund (municipal lands, etc.) for forest plantations development and for recreational purposes.
- Poor level of public participation in forest management when it comes to forest quality monitoring and control over the use of forest resources, as well as in the awareness raising activities among local population and entrepreneurs. Once the adequate level of public participation is ensured, it will become possible to identify the real situation of forest resources, considerably mitigate the man-caused impact upon forests, prevent pressure of external pressure groups and eliminate sources of corruption.

## 5.2 Recommendations

### 1. Improvement of Regions' Social and Economic Status Under Existing and Planned Government Poverty Reduction and Regional Development Programs

#### *Short-term objectives:*

- Strengthening and development of privileged credit programs for the local population with the aim of enterprise development and creation of new job opportunities.
- Reconstruction of abandoned but still potential local industrial and agricultural enterprises.
- Establishment of small enterprises for the production of plastic fruit and vegetable containers, as alternative to the existing production of wooden containers.

#### *Long-term objectives:*

- Involvement of local and foreign investments with the aim of establishing new industrial and agrarian enterprises on the basis of domestic resources and up-to-date technologies, and opening new job opportunities.

## **2. Restructuring of Fuel and Energy Supply System of the Regions**

### ***Short-term objectives:***

- Resumption of coal/charcoal/firewood import and sale to the population of mountainous and upper mountainous settlements at a reduced price.
- Uninterrupted electrical power supply to the population of mountainous and upper mountainous settlements: in order to meet the objectives of poverty reduction and regional development programs, the energy must be sold at a reduced price right up to the solvency level of local households.
- Use of secondary biomass for the production of fuel briquettes.
- Establishment of agroforestry plantations of rapidly growing wood species for their sale to the local population and other consumer categories as an alternative firewood.

### ***Long-term objectives:***

- Rehabilitation and development of the infrastructure of natural gas supply to the mountainous and upper mountainous villages which are not provided with this type of fuel.
- Provision of mountainous and upper mountainous settlements with natural gas at reduced prices.
- Use of alternative mineral and raw material resources in order to cover fuel deficit, including shale oil, natural bitumen, and secondary hydrocarbon resources produced as a result of cleaning the oil polluted territories.
- Use of the resources of small mountain rivers with the view of energy supply of the mountainous and upper mountainous villages (microhydroenergy).
- Use of solar energy in the individual households for the production of alternative energy.
- Use of wind energy in the individual households for the production of alternative energy.

## **3. Change of the Forest Resources Use Strategy**

### ***Short-term objectives:***

- Reintegration of the improvement felling practice.
- Reintegration of practice of the firewood cutting permitted by felling license.
- Establishment of agroforestry plantations of rapidly growing wood species for their sale to the local population and other consumer categories as an alternative firewood.

### ***Long-term objectives:***

- establishment of agroforestry plantations for growing alternative and valuable merchantable wood species for their further commercialization.

#### **4. Improvement of the Forest Management System**

##### ***Short-term objectives:***

- Increase of the salaries of employees of the forestry protection and regeneration enterprises in order to ensure their financial independence.
- Stimulation and encouragement of activities aimed at battling illegal logging financed from the collected fines.
- Review of penalty tariffs applied to cases of illegal logging so that they fully conform with the actual expenses related to rehabilitation of destroyed bioresources.
- Review (increase) of the mandate of foresters and forest guards in the area of battling the violators of Forest Code.
- Improvement of the qualification level of cadres employed by the forestry protection and regeneration enterprises (organization of training, preparatory courses).
- Establishment of independent forest resources monitoring system with the involvement of civil society (NGOs).

##### ***Long-term objectives:***

- Education of qualified forest management specialists in the special higher education institutions of Azerbaijan and abroad.
- Improvement of the material and technical equipment of forestry protection and regeneration enterprises.
- Restructuring of the forest management system so that concentration of production/protection and control/inspection functions in a single government authority is avoided.

**LIST OF THE CONSULTED STAKEHOLDERS****1. Ministry of Ecology and Natural Resources**

- Ali Orujov – Advisor to the Minister. Topic: illegal logging volumes and types, management system, current condition of forest resources;
- Rovshan Jafarov – Director of the Forestry Development Department. Topics: current condition of forest resources, management system;
- Musa Shakiliyev – Deputy Director of the Forestry Development Department. Topic: legal framework, current condition of forest resources, environmental threats;
- Lahudi Aliyev – Director of the Environmental Monitoring Department. Topic: monitoring and control system, current condition of forest resources, environmental threats;
- Faig Amirov – Director of the Forestry Institute. Topic: current condition of forest resources, and threats.

**2. Cabinet of Ministers of Azerbaijan Republic**

- Musa Mamedov – Advisor to the Prime Minister. Topic: illegal logging volumes and types, management system, import/export of the merchantable wood and fuel resources, legal issues.
- Zemfira Sairbeyzade – Consultant of the agrar industry. Topic: illegal logging volumes and types, management issues, legal issues

**3. Botanical Institute of Azerbaijan National Academy of Sciences**

- Uzeir Agamirov – Leading Specialist. Topic: current condition of forest resources, illegal logging volumes and types, environmental threats

**4. Non-governmental Organizations**

- Manaf Suleymanov – Environmental Union of Azerbaijan. Topics: illegal logging volumes and types, legal framework, monitoring;
- Israfil Huseynov – Environmental Protection Union. Topic: illegal logging volumes and types, environmental threats, structural policy;
- Farida Huseynova, Greens Movement of Azerbaijan. Topics: environmental threats, current condition of forest resources, illegal logging volumes and types.

**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	True	This is the case only with mountainous and upper mountainous regions
There is no feasible alternative energy source available for the rural people who depend on firewood, especially the poor	True	
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 firewood (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	–	
Almost all (more than (80%) firewood (and charcoal) production and trade is done outside of the formal economy/ without legal authorization	True	
The majority (more than 50%) of firewood (and charcoal) production and trade is done outside of the formal economy/ without legal authorization	–	
The legally extractable supply of firewood (and charcoal) is sufficient to meet the subsistence needs of rural and urban populations.	False	
Almost all (more than 80%) of wood used in local construction in the rural areas in harvested and transported without legal authorization	True	
Most (more than 50%) of wood used in local construction in the rural areas in harvested and transported without legal authorization	–	

**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	–	
The public has notice and opportunity to bid before awards	–	
Several bids are presented as a rule in the bidding processes	–	
Bids are made public after awards	–	
Award rules are publicly available	–	
Unsuccessful bidders and other interested parties may challenge awards	–	
An independent internal government watchdog polices the process	–	
Forest officials must disclose financial interests in the forest sector (own and those of family members/close relatives)	–	
<b><i>Timber harvesting and sales from valid concessions</i></b>		
Concession contracts, inventories and plans are publicly available	–	
Rules regarding forest practices concerning concession areas are publicly available	–	
Citizens may bring lawsuits or file administrative complaints to enforce concession requirements	–	
<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	–	
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	–	
Government officials have a procedure for verifying the origin of timber being transported	–	
<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	
Captured wood is sold in public auctions or through other kinds of public bidding	False	
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	

<b>Statement</b>	<b>True/False</b>	<b>Comment</b>
Government performs regular inspections of processors	True	
<b><i>Export or import of forest products</i></b>		
Customs officials trained to recognize restricted/prohibited species	True	Single training was conducted in 2003
<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	–	
Periodic audits are carried out to verify that revenue collected matches with logging volumes/ areas under production	–	
<b><i>Civil services, social, and institutional factors that influence illegal activity</i></b>		
Forestry officials regularly trained to upgrade law enforcement skills	True	
Judges and prosecutors trained in forest sector issues	–	
Forest agency is subject to independent audits	–	
Civil service has ethical code-of-conduct (e.g., regarding acceptance of gifts and benefits)	True	Corruption law was passed in 2004
Ombudsman or other independent mechanism responds to public complaints	True	

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