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Illegal Logging in SEE and EE (Governance, Implementation and Enforcement)

Illegal logging activities in the Republic of Serbia

A. FACT-FINDING STUDY

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List of acronyms

DF	Directorate of Forests
ENA	Europe and North Asia
EU	European Unit
FC	Forestry Chamber
FI	Financial Inspectors
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council, (forest certification scheme)
IG	Inspectorate General
MAFWM	Ministry of Agriculture, Forestry and Water Management
MCPFE	Ministerial conference of forest protection in Europe
MESP	Ministry of Environment and Spatial Planning
NGO	Non-Governmental Organizations
PE	Public enterprise
PE	Public Enterprises
PEFC	Pan European Forest Council, (forest certification scheme)
PFOA	Private Forest Owners Associations
RS	Republic of Serbia
SEE	South-Eastern Europe
UN/ UN	United Nations
WB	World Bank
WI	Wood Industry

Illegal logging involves transnational organized crime, breakdowns in institutional controls and ineffective institutions and can increase tensions across borders and with the international community. The effects of illegal logging are wide ranging: loss of habitat and biodiversity to erosion and land degradation, desertification and climate change to social disruption and economic impacts. Illegal logging also resolves in erosion and degradation of river basins and water quality.

The project “Illegal Logging in SEE and EE: Governance, Implementation and Enforcement” implemented under the ENVSEC initiative, aims to investigate the situation, in order to identify concrete actions to be taken by key responsible actors to close the law, policy, implementation and enforcement gaps in order to sharply reduce or eliminate illegal logging in South-Eastern Eastern Europe.

The project is financed by the Federal Government of Belgium under the ENVSEC Initiative.

The current report is providing an overview of the state of play of the forestry sector, as regards the scope and extent of illegal logging activities in Serbia, without taking into consideration the situation in Kosovo (as defined under UNSCR 1244), which is subject to a separate report.

1. INTRODUCTION

1.1. Overview of the Country's Forests

Forests offer multiple benefits: they provide raw materials for renewable and ecologically sound products and they have an important role in economic welfare, biological diversity, global carbon cycling and water balance, they are vital for the development of ecological, protection, tourist-recreation, health and cultural services, and they are also the pillars of sustainable development of any society.

Forests are one of the most important renewable resources of the Republic of Serbia, with still under used potential. Forestry and wood industry potentially could play important role in recovery of national economy and achieving of country social stability. However, the general state of the Serbian forests is unsatisfactory since the pressure on forests is increasing, as a result of the economic downturn and increased needs for products and services from forests. Decade of delay in technical-technological developments and lack of communication with the international community due to the sanctions, institutional weaknesses and slowness in adapting to the global changes, lead to a problem of efficient and sustainable forest management, which is one of the constraints in the development of the forest sector in Serbia. As a result of the overall social circumstances and situation in the forestry sector, the transition and institutional reforms are still ongoing and the level of illegal activities in forestry in Serbia is still high. Illegal logging, particularly in privately owned forests, threatens the efforts for the improvement of state of forests.

1.1.1. Area and state of forests in Serbia

Total area of the Republic of Serbia, without Kosovo (as defined under UNSCR 1244) is around 7.74 million ha.

Data received from the National Forest Inventory¹ referring to the period 2006 – 2008, shows that forests in Serbia cover the area of 2.252.400 ha or 29, 1% of total area of the country.

The Law on Forests² divides forests into 27 forest districts. Out of 27 mentioned forest areas, 6 are in Kosovo and Metohija and they are under the international administration according to the UNSCR 1244 and are not comprised in this study. Forest district include State-owned and privately owned forests. State-owned forests that are not included in the forest districts and belong to national parks are managed by special public enterprises. Forest districts have been formed according to geographical and natural conditions, which indicate the whole area, based on which the organization of republic's forestry was performed. The boundaries of forest areas do not necessarily coincide with the boundaries of the division on administrative districts in Serbia.

On the basis of the obtained results, it can be concluded that Serbia is a medium forested country. According to the National Forest Inventory, other forested land as well as unproductive land covers an area of 474.400 ha (6.1%). According to the current state, around 35% of the Serbian area has only functions which are related to forest and forestry.

Other data referring to the situation of the Serbian forests are not encouraging. They indicate that the level of coppice forests is very high (1.45 million ha or 64.7% of the total area under the forests). Since these forests have a very low average volume (124.4 m³/ha) and increment (3.1 m³/ha), their production, ecological, aesthetic and other potential uses are minimal. There are 27% of attenuated stands and totally devastated forests share with 2.5 % in total areas.

¹ The National Forest inventory of the Republic of Serbia, Ministry of agriculture, forestry and water management, 2009

² Official Gazette of Serbia, № 46/91

On the positive side is the 174.800 ha (7.8%) registered as an artificially raised forests, which is the result of intensive afforestation works since the second half of twentieth century. Moreover, 70.6% are preserved, high and coppice stands, which represent good natural potential for forest production. Hence, the current state of forests in Serbia can be characterized as unsatisfactory, but with positive trends.

Compared to the previous forest inventory, which was conducted in 1979, the difference in area is positive, with 270.000 ha forests and approximately 9.000 ha new forest per year. The increase of the forest area is a result of the conducted intensive afforestation, and natural afforestation of abandoned agricultural land in mountain areas. As from the previous inventory, the wood volume has increased annually with 2m³/ha.

Extending the forest area is a noted phenomenon, which is part of the process observed also in the neighboring areas, where the forest cover has increased by 3 – 5% in the last 20 to 30 years. One important reason for this, beside the regular planned afforestation activities, is migration trends and the reduced population in rural areas, particularly in mountain areas, and termination of extensive agricultural production in this area. (None) Accuracy of cadastre data must be taken into account until today, especially when it comes to the current way of use.

Other indicators of the state of play of forests include wood volume which is 362.5 million m³ or 160.9 m³/ha and annual increment of 9.08 million m³ or 4.0 m³/ha. These indicators, and particularly the wood volume per hectare, are significantly below the optimal values, which indicate that the production potential of habitat is not used fully. However, positive changes of values indicate continuous improvement of the state of forests.

Table 1: Area structure in relation to the use (Central Serbia and Vojvodina)

Type of soil	Area (ha)	%
Forest	2,252,400.00	29.1
Other forest land	382,400.00	4.9
Barren land	92,000.00	1.2
Agricultural land	3,594,800.00	46.4
Meadows and pastures	1,029,600.00	13.3
Urban land	312,000.00	4
Water area	85,200.00	1.1
Totally	7,748,400.00	100

Source: National forest inventory

20 types of forests were included within the National Inventory of forests. Beech forests are dominant and represent 29.3% of the total area. Turkish oak forests and artificially lifted forests - mixed forests of birch, aspen poplar and black locust are the next common tree species.

Table 2: State of forests by forest type

Forest type	forest area		wood volume			annual wood increment		
	ha	%	Total	per ha	%	total	per ha	%
Beech forests	660,400.0	29.3	153,836,670.1	232.9	42.4	2,928,838.0	4.4	32.3
Turkey Oak forests	345,200.0	15.3	49,564,926.0	143.6	13.7	1,161,647.0	3.4	12.8
Mixed forests of birch, aspen poplar and black locust	223,200.0	9.9	13,402,128.1	60.0	3.7	617,187.3	2.8	6.8
European Oak forests	173,200.0	7.7	21,596,055.9	124.7	6.0	541,822.6	3.1	6.0
Hungarian Oak forests	159,600.0	7.1	21,086,654.6	132.1	5.8	533,059.9	3.3	5.9

Pine forests	126,000.0	5.6	16,450,801.7	130.6	4.5	887,640.6	7.0	9.8
Hornbeam forests	118,800.0	5.3	13,266,576.9	111.7	3.7	297,747.8	2.5	3.3
Mixed forests of Oriental Hornbeam, European hornbeam and Ash	87,200.0	3.9	4,794,932.8	55.0	1.3	133,127.5	1.5	1.5
Spruce Forests	86,400.0	3.8	18,926,036.2	219.1	5.2	607,061.9	7.0	6.7
Poplar Forests	48,000.0	2.1	7,816,476.1	162.8	2.2	398,268.8	8.3	4.4
English Oak Forests	32,400.0	1.4	10,118,764.1	312.3	2.8	177,854.4	5.5	2.0
Lime forests	30,400.0	1.3	6,133,564.3	201.8	1.7	120,697.8	4.0	1.3
Fir Forests	25,600.0	1.1	9,838,862.6	384.3	2.7	225,515.5	8.8	2.5
Narrow leaf Ash forests	25,200.0	1.1	5,978,814.7	237.3	1.6	162,517.6	6.4	1.8
Willow Forests	22,400.0	1.0	2,174,792.0	97.1	0.6	52,369.0	2.3	0.6
Mixed forests of aspen poplar and maple	12,800.0	0.6	1,583,275.8	123.7	0.4	43,111.4	3.4	0.5
Downy Oak forests	10,400.0	0.5	907,212.2	87.2	0.3	27,531.5	2.6	0.3
Alder Forests	6,400.0	0.3	672,989.3	105.2	0.2	19,486.0	3.0	0.2
Other forests	58,800.0	2.6	4,337,884.4	73.8	1.2	144,288.5	2.5	1.6
TOTAL	2,252,400.0	100.0	362,487,417.6	160.9	100.0	9,079,773.0	4.0	100.0

According to distribution of some species of trees, the most common is beech, which constitute 40.5% of total volume. Turkish oak and hornbeam are other common tree species.

Table 3: State of forests by forest species

Tree species	forest area		wood volume			annual wood increment		
	ha	%	total	per ha	%	total	per ha	%
Beech	599,486.0	26.6	146,850,828.2	245.0	40.5	2,781,813.0	4.6	30.6
Turkey Oak	242,138.8	10.8	46,980,445.9	194.0	13.0	1,034,876.0	4.3	11.4
Hornbeam	189,549.7	8.4	15,157,239.9	80.0	4.2	334,571.8	1.8	3.7
Black Locust	169,153.5	7.5	11,243,943.6	66.5	3.1	516,856.9	3.1	5.7
European Oak	143,966.1	6.4	21,542,890.0	149.6	5.9	553,734.8	3.8	6.1
Hungarian Oak	137,939.0	6.1	20,986,464.9	152.1	5.8	518,767.4	3.8	5.7
Austrian Pine	86,014.2	3.8	12,659,026.9	147.2	3.5	714,857.7	8.3	7.9
Spruce	73,881.0	3.3	18,810,546.7	254.6	5.2	605,245.9	8.2	6.7
Ash	70,841.1	3.1	3,505,757.8	49.5	1.0	102,157.9	1.4	1.1
Other broadleaved species	49,186.4	2.2	2,941,999.6	59.8	0.8	90,189.0	1.8	1.0
Oriental Hornbeam	45,162.4	2.0	1,717,528.7	38.0	0.5	55,073.1	1.2	0.6
Field Maple	41,364.2	1.8	3,181,303.3	76.9	0.9	73,152.2	1.8	0.8
Scots Pine	27,222.2	1.2	3,775,429.8	138.7	1.0	176,870.1	6.5	1.9
Euro American Poplar	23,839.4	1.1	6,137,862.4	257.5	1.7	338,272.3	14.2	3.7
Fir	22,162.2	1.0	8,304,923.6	374.7	2.3	199,851.2	9.0	2.2
Narrow leaf Ash	20,043.6	0.9	5,792,310.8	289.0	1.6	153,519.0	7.7	1.7
Aspen Poplar	19,722.4	0.9	2,358,304.5	119.6	0.7	92,646.5	4.7	1.0
English Oak	19,049.9	0.8	9,242,372.7	485.2	2.5	157,885.8	8.3	1.7
European Hop-hornbeam	16,881.3	0.7	1,480,694.2	87.7	0.4	33,965.8	2.0	0.4
English Elm	16,731.2	0.7	1,097,943.1	65.6	0.3	43,100.6	2.6	0.5

Large-leaved Lime	16,114.2	0.7	3,535,861.4	219.4	1.0	70,651.1	4.4	0.8
Willow	15,769.2	0.7	1,912,086.4	121.3	0.5	42,818.8	2.7	0.5
Wild Cherry	14,843.9	0.7	1,292,268.8	87.1	0.4	32,385.9	2.2	0.4
Other	191,338.2	8.5	11,979,384.4	62.6	3.3	356,507.3	1.9	3.9
Total	2,252,400.0	100.0	362,487,417.6	160.9	100.0	9,079,770.0	4.0	100.0

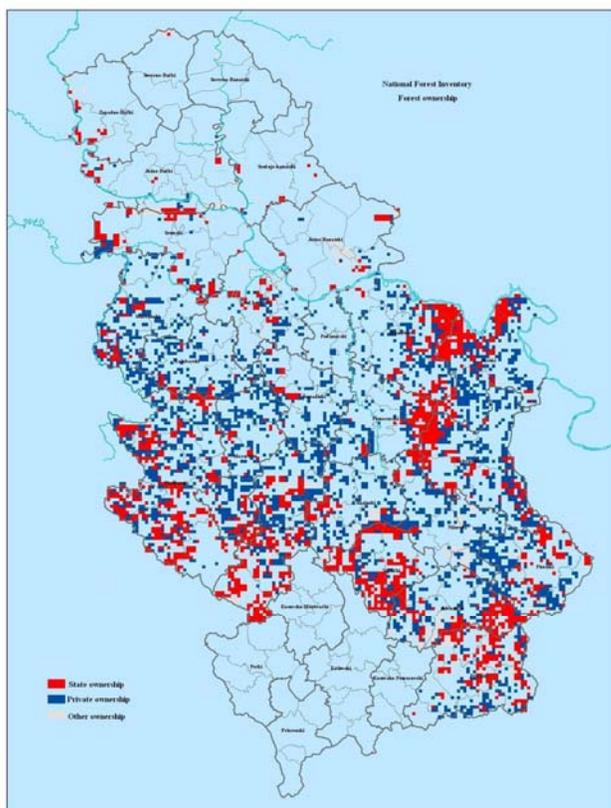
1.1.2. Ownership structure of forest³

Out of the total 2 252 400 ha of forests in Serbia, 1.194.000 ha is state-owned (53%), and 1.058.408 ha is privately owned (47%).

Table 4: Ownership structure of forests in Serbia

Ownership	Area		Volume			Volume increment			
	forest ha	%	total	per ha	%	total	per ha	%	% of V
1 State ownership	1,194,000.0	53.0	221,417,935.9	185.4	61.1	5,395,093.0	4.5	59.4	2.4
2 Private ownership	1,058,400.0	47.0	141,069,481.7	133.3	38.9	3,684,680.0	3.5	40.6	2.6
SVG	2,252,400.0	100.0	362,487,417.6	160.9	100.0	9,079,772.0	4.0	100.0	2.5

Source: National forest inventory



Condition of the state-owned forests in general can be characterized as satisfactory, the average volume in this forests is 184 m³/ha, and current volume increment is 4.5 m³/ha. Percentage of increment is 2.4%, which is a positive indicator about the potential for improvement of Serbian forests through sustainable use and good forest practice.

Map 1: Ownership structure of forests

³ The National Forest inventory of the Republic of Serbia, Ministry of agriculture, forestry and water management, 2009

Table 5: Forest in state ownership by origin

Stand origin	Area	Volume	Volume per ha	Volume increment total	Volume increment per ha
High natural stand	442 400	117 875 059	266.4	2 481 287	5.6
Coppice natural stand	616 000	84 001 965	136.4	1 918 476	3.1
Artificial afforested stand	135 600	19 540 911	144.1	995 330	7.3
Total	1 194 000	221 417 936	185.4	5 395 093	4.5

Source: National forest inventory

Privately owned forests are in a worse situation, with average volume of 133 m³/ha and annual volume increment of 3.5 m³/ha. Percentage of increment in these forests is slightly higher than in the state-owned ones (2.6%), and reasons are the dominant coppice origin and found age structure.

Table 6: Forest in private ownership by origin

Stand origin	Area	sum V	V	Volume increment total	Volume increment per ha
Coppice natural stand	840 400	97 186 949	115.6	2 539 716	5.6
High natural stand	178 800	39 636 204	221.7	906 672	5.1
Artificial afforested stand	39 200	4 246 329	108.3	238 291	6.1
Total	1 058 400	141 069 482	133.3	3 684 680	3.5

Source: National forest inventory

Looking at the ownership structure of forests, it can be noted that the state owned forests are mostly located in large entities, in the area of major mountain massifs, which are generally not populated and which allows for better organization of management and protection of these forests. Contrary, the privately owned forests are in the village areas and populated places, smaller distances from the villages and towns.

Privately owned forests in Serbia are also characterized by very small average plot size, estimated at around 0.3ha. Moreover, the number of private forest owners is very high amounting to about 500,000 owners. This means that the average private forest owner has about 2 hectares of forests that stretch along the 6 to 7 plots, which are very often not spatially related. This spatial distribution, as well as very large number of small forest owners, leads to the impossibility of establishing the appropriate organization in the private forests, and also creates difficulties in the implementation of measures of sustainable forest management. Due to their small size and low productivity, owners cannot afford to pay for professional management of their forests.

The condition of private forests in Serbia is characterized by an insufficient amount of high forests and a very high percentage of coppice forests, scrub, and brushwood. Still, it is thought that “*despite some unfavorable management characteristics of private forests (such as small area, a great number of plots scattered over a vast area, insufficient timber supply), their potential can be almost twice as large as that realized nowadays*”⁴ (Nikolić S.,1986).

⁴ FAO – UNEC Geneva timber and forest discussion paper 40, “Forest and forest products country profile: serbia and montenegro”

1.2. Forestry organization according to combating illegal logging

In organizational terms, the Serbian forestry is largely centrally organized. At the top of organizational pyramid, there is a Ministry of Agriculture, Forestry and Water Management and the Directorate for Forests as its operational part. In the next organizational level, there are 2 companies for forest management that were created by division of the single public enterprise "Srbijašume" in 2003. These companies manage all forests under the state ownership, except the national parks. The above mentioned companies also conduct professional activities in private forests. In addition to these bodies, there are educational and scientific institutions and professional associations complementing the forestry hierarchy.

Table 7: Forestry organization

Level of state administration	Ministry of Agriculture, Forestry and Water Management
	Directorate for Forests
	General Inspectorate of the Ministry
Companies for forest management	PE "Srbijašume" Beograd PE "Vojvodina šume" Novi sad
National Parks	PE National Park "Fruska gora" PE National Park "Tara" PE National Park "Kopaonik" PE National Park "Djerdap" PE National Park "Sar – planina"
Educational and scientific institutions	Faculty of Forestry in Belgrade Institute for Forestry in Belgrade Institute for Lowland Forestry in Novi Sad

Institutions and organizations play a pivotal role in the achievement of policy goals and implementation of forestry strategy and programs. Recent changes in the demand for goods and services from the forests, and the adoption of appropriate measures to satisfy them have necessitated changes in the forestry institutions. Further changes are likely to ensue as a result of changes in the political and economic system and preparations for accession to the European Union.

1.2.1. Ministry of Agriculture, Forestry and Water Management

The responsibilities of this Ministry include agricultural development; protection, usability and promotion of agricultural areas and water, agriculture flora and fauna; rural development; food industry; water economy and water management (except water distribution); as well as other activities specified under the law.

Ministries carry out tasks of state direction, i.e. apply laws and general regulations and official documents of Parliament and Government, as well as official documents of the President of the Republic. Ministries also carry out administrative monitoring and other administrative tasks defined by national law. Ministries' independence is determined by the Constitution and by competences defined by law.

1.2.2. Directorate of Forests

The Directorate of Forests of the Ministry was established in May 2002. According to the *Law on Ministries*, the Directorate for Forests, as an administrating entity within Ministry of Agriculture, Forestry and Water Management, execute different tasks of state direction and professional operations regarding:

- Forestry policy;
- Improvement and use of forests and game;
- Execution of measures of protection of forests and game;
- Control of seeds and seedlings in forestry, as well as other tasks determined by law.

1.2.3. General Inspectorate of the Ministry of Agriculture, Forestry and Water management

The General Inspectorate of the Ministry of Agriculture, Forestry and Water Management has been established by Law on Ministries in July 2008, for the purposes of efficient inspection services in all related ministries. General Inspectorate consists of the following inspection services: agricultural, veterinarian, phyto-sanitary, forestry, hunting and water management.

1.2.4. Public Enterprises (PE) for Forest Management

The State owned forests area in Serbia are divided between eight public enterprises (*PE Srbijasume*, *PE Vojvodinasume*, *5 PE National Parks* and *PE Beli izvor*), as well as several waterworks and agricultural organizations, and educational research bases of the Faculty of Forestry in Belgrade.

Public enterprises for forest management are mainly established by the Republic of Serbia, on the basis of special law⁵, transferring the right to manage state owned forests (property of the state). However, the state authorities, namely the Serbian Government, can not deprive the public company's right to use forests, without the consent of the company (for some small parcels). Status changes of ownership can be implemented only by legislative amendment. Also, the companies can not sell forest and forest land on its own, with the exception of small isolated parcels connected to private properties. Such smaller forest lands can be sold upon obtaining the consent of the Serbian Government.

Responsibilities of public enterprises for forest management include:

- Cultivation, protection, conservation and utilization of forests.
- Raising and utilization of game.
- Engineering, construction and maintenance of forest roads.
- Preparation of management programs and plans.
- Technical operations in private forests.
- Advancement and utilization of public-beneficial functions of forests.
- Wholesale and retail trade in forest products.

Companies Srbijasume and Vojvodinasume are organized at three levels:

- 1) Head office in Belgrade and Novi Sad
- 2) Forest Estates
- 3) Forest Management Units (Field Units)

Based on Law on Forests⁶ companies responsible for forest management have the duty – amongst other tasks - of protecting and saving forests, which implies the establishment of

⁵ Law on Forests, Law on Transfer of Competences to AP Vojvodina, and Law on National Parks

⁶ Official Gazette of Serbia, № 46/9

services for the protection and care of forests, which includes also protecting forests from illegal logging activities and other illegal actions.

Total number of persons performing activities to protect forests in all companies is about 650 forest security guards, which mostly have secondary education, in particular forestry technician. This organization traditionally exists in Serbian forestry. Workers who perform tasks of forests protection, i.e. forest guardians are wearing uniforms and they possess official identities. However, they do not have personal weapons. Forests protection services have certain powers which derive from the Law on Forests and the internal laws of a company. Forest Guardians can control the origin of wood they find in the forest, in a forest depot or on the forest road, and even wood that is stored in private possession if there are reasons to believe that it originates from illegal logging. Forests protection services has permanent communication with the competent police authorities which, upon the request, provide assistance in more serious cases. Also, these services have cooperation with the competent judicial authorities.

Companies for forests management are certainly very interested in the prevention of illegal logging, as well as other illegal activities in forests, because in this way they prevent the reduction of wood supply and the value of forests as well as losses in production or protect properties that is entrusted to them for management and that is their basic capital. Also, forest management companies have a legal obligation to prevent illegal activities and non compliance is sanctioned.

Looking at an organization within the enterprise for forest management and measures which have been implemented within the forest protection from illegal logging, it is estimated that is illegal logging in the state – owned forests, mainly under the control and mainly registered.

1.2.5. Public Enterprises of National Parks

There are five National Parks in Serbia which have been established by a specific law. These are areas of exceptional natural, cultural and historical importance. Total area managed by National Parks is 159.525 ha (5% of total forest cover). For the implementation of the functions of national parks, the law established separate public companies whose primary task is the management of these areas:

- PE National Park “Fruska gora”: 25,393 ha, established 1960;
- PE National Park “Tara”: 19,715 ha, established 1981;
- PE National Park “Kopaonik”: 11,809 ha, established 1981;
- PE National Park “Djerdap”: 63,608 ha, established 1988;
- PE National Park “Šar – planina”: 39,000 ha, established 1993.

In National Parks, forests are managed on the basis of regulations, management plans and other documents, primarily on the basis of the Law on National Parks, the Law on Forests and the Law on the Protection of Nature. The forests in national parks are managed in accordance with special programs of protection and forest management plans.

1.2.6. Association of private forest owners

The area of privately owned forests is insufficiently regulated. Private forests cover almost 50 % of total forest area, which represents significant resources, however, the size of the average forest plot is 0,3 ha aggravated and very often disable implementation of adequate measures for forest management. On the other hand, in Serbia there are about 500,000 individual forest owners, which are unorganized, except for several local associations of private owners.

Professional jobs in private forests, which include remittance of trees for cutting, issuance of documentation for timber traffic and partially advisory assistance, performing public companies for the forests management and national parks by the obligations that derive from the Law on Forests (management services for private forests). According to available data the

total number of employees in jobs in private forests in the PE "Srbijašume" is 320, of which 53 graduated engineers of forestry and 267 technicians. At the level of PE "Srbijašume", for the purpose of performing professional services in the private forests, annually is done on average:

- 111 temporary annual plans (by municipalities);
- 1.332 project documentation for afforestation and melioration (for cadastral parcels);
- 641.733 m³ remittances of trees for cutting;
- 490.617 m³ stamping of average wood;
- 9.638 professional investigation;
- 2.804 submission of expert information;
- 62.105 issuance of shipping document

The owners of private forests often carry out forest management and forest use activities to satisfy their current needs, without taking into account the real needs of forests. The reason for this can be found in the unfavorable economic situation and the fact that many forest owners have left the forest area and now live remotely from the forest property, thus changing their attitude towards the forest.

The situation in private forests, which is primarily characterized by lack of organization and more frequent occurrence of illegal logging and other activities.

In order to improve the organization of private forest owners, significant activities in the context of their association have started, aiming at achieving a more significant role in protection and management of their forest. First initiatives for private owners association derived from UN/FAO projects⁷. The first of several associations of private forest owners was formed in 2006: Rastište - Bjelovar, Miličinica - Valjevo and Podgorac - Boljevac, and then the process is continued in other areas.

Table 8: Assosiations of private private forest owners in Serbia (2008)

1. Rastište – Bajina Bašta 2006.
2. Miličinica – Valjevo 2006.
3. Podgorac – Boljevac 2006.
4. Zlot - Bor 2006.
5. Krivelj – Bor 2006.
6. Brestovac – Bor 2006.
7. Bigrenica – Čuprija 2007.
8. Selacka – Zaječar 2007.
9. Negotin - Negotin 2007.
10. Mačkov Kamen - Krupanj 2008.

Source: Milijić (2007) i internal data of private forests assosiation

1.2.7. Interinstitutional cooperation in the management of forests resources

Inter - institutional cooperation in the field of forestry and natural resources management in general is the obligation of state bodies and institutions, arising from the regulations that regulates the organization of the Ministry in Serbia. However, the institutional cooperation as a permanent process in making important decisions and implementation of action plans is not yet sufficient. There are often cases of "non-interference" in jobs and responsibilities of other institutions, which often leads to insufficient use of institutional resources, overlapping of activities or different approaches in problems solving. The problem of lack of institutional cooperation is present in relations of sector of forestry and environmental protection sector at

⁷ Project: FAO/TCP/YUG/2902(A): "Program Institucionalni razvoj i izgradnja kapaciteta za Nacionalni šumarski program" (www.forestserbia-fao.sr.gov.yu), i projekat GCP/FRY/003/FIN: "Razvoj sektora šumarstva iSrbiji" (www.forestryprojectserbia.org).

the ministerial level, but also in relation of state enterprises for forest management and the competent ministries.

A smaller numbers of projects and activities are currently being implemented aiming at strengthen the connection of institutional factors in the area of forest resources management. The official bodies at the level of Serbian Government have not been established. The only exception is in the process of European integration, having an official body of the Deputy Prime Minister level, which aims to coordinate activities and ensure cooperation of state bodies in the process of harmonization with the EU.

According to the project financed by the World Bank and in accordance with ENAFLEG process - a working group whose task is development and implementation of action plan to combat illegal logging in the forestry and wood industry of Serbia has been established at the level of the Ministry of Agriculture, Forestry and Water Management, in order to prevent illegal logging. Participants in this process are the representatives of the relevant ministries, companies for forest management, Ministry of Interior Affairs, the competent judicial authorities, etc.

1.3. Nature and Environmental Protection

Nature protection is within the competencies of the Ministry of Environmental Protection and Spatial Planning. With regards to the protection of nature, the Ministry is responsible for the following:

- creating a system of protection and sustainable use of natural resources;
- development of strategic documents, plans and programs of research in the field of sustainable use of natural resources;
- providing material and other conditions for the realization of these programs;
- system of protection and improvement of the environment;
- basis of environmental protection; nature protection;
- establishing and implementing the protection of the natural entity of importance for the Republic;
- determining the conditions for environmental protection in the planning and construction of storage facilities;
- approval of cross-border traffic of protected plant and animal species;
- inspection in the field of sustainable use of natural resources and environmental protection;
- environmental inspection at the border.

1.3.1. Protected Natural goods

Serbia is a country rich in biodiversity, with a large number of plant and animal species, interspecies variability, as well as the extraordinary beauty of regions. The concept of sustainable forest management must fully apply the principles of nature and environmental protection, through clearly define and balance certain priority forest functions by using the economic possibilities and needs in these areas. Accepting the need to protect valuable forest ecosystems in Serbia, currently about 547,176 ha (6.1% of the total territory of the Republic of Serbia) is under protection under various schemes, located in the 5 national parks (Fruska Gora, Kopaonik, Tara, and Šarplanina, Djerdap), 12 nature parks, 56 nature reserve and others.

Table 9: Protected areas in Serbia - dated 31.12.2009⁸

No.	Type of protected natural goods	No.	Area (ha)
1.	National Park	5	158.986,36
2.	Nature Park	12	232.541,11
3.	<i>Regional Nature Park</i>	4	5.902,98
4.	<i>Forest Park</i>	1	19,65
5.	Landscape of exceptional features	11	33.638,00
6.	<i>Landscape of special natural beauty</i>	6	15.564,99
7.	Special Nature Reserve	16	86.714,00
8.	Nature Reserves (general and strict)	56	1.405,91
9.	Monuments of Nature	323	8.399,00
10.	<i>Memorial Natural monument</i>	27	2.328,00
11.	<i>Space around the immovable cultural goods</i>	15	1.676,00
12.	Natural rarities: 215 plant i 429 animal species		
Total 1-11		475	547.176,00

There are numerous national and municipal laws and regulations that regulate the area of environmental protection. In addition, Serbia (legacy Yugoslavia, Federal Republic of Yugoslavia and Serbia and Montenegro) has ratified 70 international conventions and took over the implementation of obligations that they set, and which are in relation to the environment.

In Serbia, the Law on Environmental Protection from 2008 regulates the following areas: protection measures in the planning and construction, protection of air, water, land, forests and natural resources, noise, ionizing radiation and control of hazardous substances, environmental impact assessment, financing of protection and inspection.

Law on Nature Protection (2009) regulates in detail protection and preservation of natural, biological, geological and landscape diversity as part of the environment. This Law realizes the following objectives:

- Protection, preservation and improvement of biological (genetic, species and ecosystems), geological and landscape diversity;
- Harmonization of human activities, economic and social development plans, programs, basis and projects with sustainable use of renewable and non-renewable natural resources and long-term preservation of natural ecosystems and natural balance
- Sustainable use and / or management of natural resources and assets, ensuring their functions while preserving natural resources and balance of natural ecosystems
- Timely prevention of human activities and the activities which can lead to permanent impoverishment of the biological, geological and landscape diversity, as well as disturbances with negative effects on nature
- Deducing and monitoring of state of nature; and
- Improving the state of disturbed parts of nature

There are other laws and regulations on the national level, regulating some areas of the environmental protection such as: waste and dangerous substances, health and quality of food, land, soil and forests, flora and fauna, hunting and fishing, and management of land use and construction, hazardous and radioactive materials and ionizing radiation, natural and other disasters, taxes and benefits, and organizational aspects.

There is a conflict of jurisdiction between different laws, mostly in the by-laws, especially those at the municipal level. Most cases are those concerning the protection of natural

⁸ Aleksić & Jančić, 2009, Protected natural goods in Serbia, Magazine „Forestry“, based on data obtained from Institute for Nature Protection

resources which is declared by municipality, without adequate procedures at the state level, as well as permanent changes in land purpose in the case of forests due to spatial plans.

- Budgetary financing of protected natural goods management is insufficient since it covers only the monthly salaries of staff who deals with this area. Most of the revenues are collected from the issuing of fishing licenses and permission for medicinal plants collection, fungi and other non-wooden forest products. Around 10% of this income is paid into the state budget, and the rest goes to state enterprises or other entities that manage these areas or collect non-wooden forest products.

The far most important protected areas in Serbia are National Parks. National parks occupy the territory of 158,986 ha, including 4 national parks in central Serbia.

Table 10: National parks of Serbia

National parks	Municipalities	Area (ha)	Altitude (m)
Derdap	Golubac, Kladovo and Majdanpek	64000	70 – 806
Tara	Bajina Bašta	19200	1000 -1591
Kopaonik	Raška and Brus	12000	640 – 2017
Fruška gora	B. Palanka, Beočin, Indija, Novi Sad, S. Mitrovica and Šid	25400	100-539
Mountain Šara	Kačanik, Uroševac, Suva Reka, Prizren and Štrpce	39000	1220-2685

Source: The Statistical Yearbook of Yugoslavia, 2001.

The National Park **Derdap** is situated in the northeast of the country and borders Romania. It is characterized by the Danube canyon and a huge Đerdap crag. Vegetation consists of about sixty forests and shrub communities that provide habitats for many bird species, particularly waterfowls, as well as for other animals (such as bear, fox, deer.).

The National Park **Fruška Gora** is a mountain 539 m high located in the northern part of the country, with 90% forested area. About 1100 plant species have been identified, 12% of which are relict or endemic. In addition to 200 bird species, wildcat, badger, marten, dormouse, bat and other species can be found.

The National Park **Kopaonik** is situated in the central part of Serbia, on the highest parts of the Mountain Kopaonik. Due to altitude and climate zone differences, the area is characterized by rich biodiversity, especially of endemic and rare species. Beside biodiversity, its main feature is a very attractive landscape.

The National Park **Tara** comprises a mountain chain intersected by river valleys and crags. Its peculiarity is endemic and relict spruce (*Picea omorica*). Forests, pastures, peat sites and riverbank vegetation serve as habitats to many animal species and are the main features of the attractive landscape.

The National Park Mountain **Šara** is on the very South of Serbia, where 20 endemic species are being found. Beside diverse vegetation, many animals live there, among them, lynx, bear, eagle, and griffon vulture.

Forest management within the National Parks is organized similarly to other enterprises for forest management. Forest management is conducted in accordance with forest management plans that are developed on the basis of specific criteria related to forest of National Park, and on which is given consent from the Ministry of Agriculture, Forestry and Water Management and Ministry in charge of environmental protection. Production of wood, cutting and use of forests are in line with specific requirements related to national parks forests, but they are an important source of income for the company.

1.3.2. Agency for Environmental Protection

Competencies of the Agency are:

- development, coordination and management of national information system of environmental protection (monitoring of environmental factors);
- unite and gathering data on the environment, their processing and preparation of reports on the state of the environment and the implementation of policies of environmental protection;
- development of procedures for processing data on the environment and their assessment; managing data on the best available techniques and practices and their implementation in the field of environmental protection; and
- cooperation with European Agency for Environmental Protection and EIONET.

1.3.3. Fund for Environmental Protection

The Fund for Environmental Protection performs work in connection with the financing of the preparation and implementation of development programs, projects and other activities in the field of preservation, sustainable use, protection and improvement of the environment. The Fund uses resources to finance remediation and action plans in accordance with the national program of environmental protection. For instance, the development plan projects will be financed from the Fund for Environmental Protection.

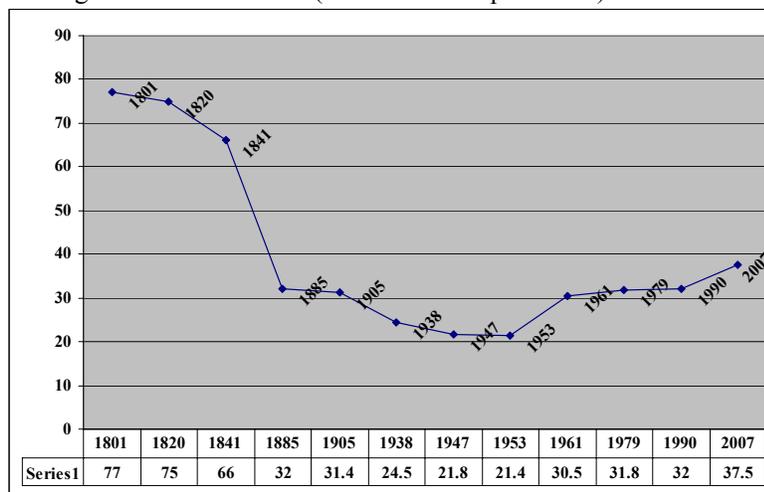
1.3.4. Institute for Nature Protection

Institute for Nature Protection is responsible in the field of nature protection, especially protected areas, such as parks, reserves, habitats of wild flora and fauna, as well as in making professional supervision of these natural values.

1.4. Changes in the forest fund of Serbia as a result of forest cutting

The situation of forests in Serbia has always been in close connections with the policy of space use. Forest lands have been conveyed to be transformed into agricultural land; they have paid the cost of urbanization, development of mining and post-war reconstruction of the country.

Written information from the Middle Ages indicates that Serbia was very rich in forests, which has characterized this region until the beginning of the XIX century. According to estimations from that time forest cover of Serbia (without the present-day Vojvodina) was about 80%. At the beginning of the nineteenth century, Serbia's intensive population patterns led to deforestation. Thus, the main causes of disappearance of forests in this period were urbanization, the development of agriculture and mining. Reduction of forest area is continued until the middle of the twentieth century, when the lowest forest covers at 21.4% was determined. Consequences of mass deforestation were especially pronounced in the period between the two world wars when huge areas were permanently devastated mainly due to erosion and flash floods in many villages. In the period after the Second World War, awareness of the importance of forests began to change, and important work on afforestation and intensive development of forestry began.

Graph 1: Changes in the forest fund (Serbia without provinces)⁹

The last two decades are characterized by increased pressure on forests as a result of difficult economic conditions and increased need for wood products. The United Nations sanctions led to backwardness in technical-technological development and institutional weaknesses.

Despite the unfavorable economic situation, the forests in Serbia reported positive changes by gradual increase of area under the forests. National Inventory data demonstrates that, in comparison to the previous inventory, land under the forests increased by 268,581, as a result of afforestation and natural overgrowth of forests. It is expected that this trend continues.

1.5. The level of forest use

The possible realized volume cutting is limited in natural conditions and by strict national legislation. Exceeding the planned volume cutting usually leads to degradation of forests and thus requires rigorous controls and respect of forest management plans. The cutting volume is determined on the basis of the forests inventory, which for Serbia is estimated at about 4.6 million m³ per year.

Table 11. Possible volume for cutting (etat)

district	state forests		private forests		total	
	standing volume m ³	Cutting volume m ³	standing volume m ³	Cutting volume m ³	standing volume m ³	Cutting volume m ³
The city of Belgrade	2,645,644	97,235	3,184,130	58,115	5,829,773	155,350
Mačva administrative district	4,991,273	83,842	8,564,951	141,512	13,556,224	225,354
Kolubara administrative district	1,754,002	25,464	7,943,193	121,089	9,697,196	146,554
Braničevo administrative district	10,155,135	172,638	7,974,734	129,864	18,129,869	302,502
Zlatibor administrative district	14,783,540	190,931	16,042,930	280,999	30,826,470	471,930
Šumadia administrative	1,830,239	26,155	3,367,637	61,772	5,197,876	87,927

⁹ Source of data Aleksić.P., Vučićević S. "Forest of Serbia", magazine "Forestry"

district						
Pomoravlje administrative district	5,941,820	96,925	5,097,397	82,726	11,039,217	179,650
Moravički administrative district	10,172,300	132,597	13,661,021	189,906	23,833,322	322,503
Bor administrative district	12,664,454	175,115	10,514,746	149,482	23,179,201	324,597
Zaječar administrative district	4,911,079	76,117	11,949,674	188,971	16,860,753	265,089
Pirot administrative district	4,109,204	62,719	5,195,506	87,467	9,304,711	150,186
Raška administrative district	13,821,219	158,677	11,709,545	177,755	25,530,764	336,432
Rasina administrative district	11,614,800	151,895	6,052,724	97,995	17,667,524	249,890
Nišava administrative district	3,390,832	45,140	4,442,302	83,564	7,833,134	128,704
Toplica administrative district	9,464,292	125,255	1,932,729	32,256	11,397,021	157,511
Jablanica administrative district	4,934,903	83,817	7,097,086	110,885	12,031,989	194,702
Pčinje administrative district	6,256,164	91,715	10,171,312	129,286	16,427,477	221,001
Srem administrative district	13,710,654	240,068	3,813,812	48,191	17,524,467	288,260
West-bačka administrative district	107,486	6,797	0	0	107,486	6,797
South-bačka administrative district	2,050,089	91,099	759,704	12,388	2,809,793	103,488
Srednje-banatski okrug	451,287	36,422	243,735	2,730	695,022	39,152
South-banat administrative district	6,735,813	214,801	290,022	7,522	7,025,835	222,323
TOTAL	146,496,230	2,385,425	140,008,892	2,194,475	286,505,122	4,579,900

Source: for state forests - forest management plans. For private forests - national forest inventory

Volume cutting for state forests is precisely determined for the individual regions and in total is about 2.39 million m³ per year. Possible volume cutting for private forests by these regions is estimated on the basis of the national forests inventory and not based on the detailed management plans, whereas it does not exist for this category of forest owners. Forest management plans, which form the basis for detailed calculation of the potential scale of logging have not been carried out for private forests in Serbia. In practice, the volume of logging is determined on the basis of provisional annual plans including calculations of yield and estimation of possible scale of annual logging. In a given review, calculations of the potential scope of logging in private forests were conducted based on data obtained by National Forest Inventory. The possible annual volume of wood that can be cut down for private forests is calculated as 60% of the total annual increment of these forests.

Volume of realized cutting differs from the possible harvest volume. The reason for this lies in the forests inaccessibility and insufficient openness of forest roads. In the state forests about 2 million m³ of wood in the gross amount is cut per year, of which 50-55% is belonging to the fire and pulp wood. Regarding the private forests, accurate information about the annual volume of production does not exist mainly due to the proportion of the produced amount owners used for their own needs.

Officially registered volume of logging in the Republic of Serbia (in gross amount) ranges from 3-3.5 million m³ annually. For year 2008, based on the company's forest management

reports, the volume of logging in state forests amounted to 2.3 million m³, while in private forests amounted to 0.8 million m³. Official statistic data (Statistical Year Book 2008) are different from the data that companies for forest management have - and according to the official statistics, in year 2007 was cut only 2.2 m³, which does not correspond to the real extent of cutting.

Table 12: Volume of executed loggings in year 2008

	Origin	Total gross	Net		Total net
			Industrial wood	Firewood	
1	PE „Srbijašume“	1,391	505	677	1,182
2	PE „Vojvodinašume“	634	385	154	539
3	National Parks (4/5)	202	68	104	172
4	PE „Borjak“, Vrnjačka Banja	21	7	11	18
5	Other users	89	25	51	76
I.	Total state forests	2,338	990	997	1,987
II.	Private forests	826	149	595	743
III.	<i>Total (I + II)</i>	<i>3,164</i>	<i>1,139</i>	<i>1,592</i>	<i>2,730</i>

Source: Company's for forest management data

However, as already noted, the volume of registered performed logging in private forests is lower than the recorded amounts. The main reason being that a significant number of forest owners harvest the forest for their own purposes, without the consent of professional services, and thus, these logged quantities are not registered. Roughly estimated, based on the experience of professional services, the amount of logged wood in the private forests is twice as high as the registered, amounting to approximately 1.6 million m³ of wood. If this assessment is presumed realistic the total volume of forest logging in Serbia is 4 million m³ annually.

Some authors estimated the consumption of wood by carrying out a public survey (on basis of questionnaire) and on the basis of given statements on consumption and they came to the conclusion that the consumption of firewood is far higher than the registered amount. For example, their assessment of firewood consumption is around 8.7 million m³ per year, with an average consumption of 4.25m³ per household, including all of 2.52 million households in Serbia. However, the assumption that all households in Serbia use firewood for their own needs does not fit with factual situation, so it can be estimated that it is the case in at the most about 40% of households in Serbia. Other household use central heating systems, electricity or natural gas. If the estimated total amount of 40% is reduced, it can be reached data that is annual consumption of firewood about 5.2 million m³, which with the consumption of technical wood of 1.3 million give the amount of about 6.5 million m³ in the net amount or 7.6 million m³ in gross amount, which represents the maximum of estimated consumption of wood annually. Taking into account that the total annual forest increment, based on National Inventory is 9 million m³, it can be concluded that the estimated maximum volume of logging still less than increment. This conclusion is further supported by the fact that the areas of the registered forest areas as well as value of standing wood volume in the National Inventory is increasing. Based on the presented data, it can be concluded that the exact volume of executed logging in the Serbian forests is unknown and that it is around 4-5 million m³, but according to the maximal estimation, it can reach 9 million m³ in gross amount. The fact that there is a lack of accurate data, indicate necessity of taking a measures in the direction of recording of all logged wood or better control of wood flows.

1.6. Forestry and Economic Development

The registered GDP contribution of forestry is only 0.3% of the total GDP of the country, and the forest industry contributes with some 2.5%, which translates to a total contribution of the whole forest sector of 2.8%. In 2008 the direct contribution of forest sector to the employment was 3% (39.232). Many stakeholders consider the forestry sector as marginal, with little importance to the national economy and national development. However, forests cover some 29% of the land area. In many rural areas where opportunities to earn income are scarce, forest resources provide employment, fuel wood, and additional income. The national accounts do not capture all the values and benefits of the forests contributing to the national economy. Furthermore, the value of various intangible and non-marketable services of forests are poorly understood, and completely ignored when compiling the national statistics.

Table 13. Indicators of forestry, wood processing and furniture production in Serbia in 2007

Sub name, area and branch	Number of companies	Number of employees	Total income euros
Forestry	140	5.616	113,051,000
Wood processing and wood products	1.295	10.271	351,854,000
Production of cellulose and paper and wood processing	618	8.097	518,446,000
Furniture production	566	15.255	429,317,000
Total	2,619	39,239	1,412,668,000

Within their scope of business, enterprises in charge of forest management mostly achieve positive business result and they provide minimal investments into simple forest reproduction and related investments. Enterprise "Srbijasume" acquired business profit of only 288,623 Euro in 2009. In 2007, PE "Vojvodinasume" acquired total business income of 36.7 million Euro and total business expenditures of 34.8 million Euros.

Table 14: Business results of PE "Srbijasume"

No.	Income and expenditures	2007		2008	
		RSD	Euro	RSD	Euro
1	Total income	4,572,969,729	57,713,283	5,164,537,000	58,289,827
2	Total expenditures	4,559,601,633	57,544,571	5,147,825,000	58,101,207
3	Gross profit	13,367,000	168,699	16,712,166	188,623

Source: Enterprise reports on business progress

1.6.1. Forestry and Wood industry

Relations between the forestry and the wood industry in Serbia in the last 2 decades can not be considered satisfactory. Relations are practically based on internal relations imposed by wood market. The reasons for this situation are numerous, and dating from the time of socialism, when the wood industry had been achieving their needs for raw materials by political influence, very often to the detriment of forest companies. In the late 1980s, at the initial phase of the market economy the complete separation of forestry and wood industry was conducted both regarding the organizational structure and the political conditions. As a result of the development policy from the previous period, the capacity for primary wood processing residual and in that period were five times higher than the forests production capacities. This discrepancy between the raw material resources and forests production

capacities led to constant conflicts between the forestry and wood processing. After 1991 and establishment of Public company for forest management "Srbijašume» Belgrade, all forests in the state ownership (except national parks) are organized within the company, which led to a concentration of raw materials, and sale from one place. On the other hand in the area of wood processing an intensive privatization has begun, mostly by establishing new companies, and not by privatizing existing publicly owned ones. This led to the increase of demand for wood from one side, which has already been too high, and from the other side it lead to the trade between the state enterprise as a monopoly supplier and private companies. It is understandable that in the initial phase of privatization, in the times of economic blockade and war events, private business (sector) used all means to come to the needed quantity of wood, on as lower prices as possible. By various illegal methods, including corruption, false classification of goods, frauds in the payment etc. the original accumulation of capital in this area has been made. To date, no such case was followed by serious sanctions imposed by court. As a consequence of privatization, former public enterprises for wood processing mostly disappeared, while the new sector of private companies surfaced. Unfortunately, in these new conditions also, capacities for wood processing are significantly greater than forest potentials, according to some estimates at least twice as large.

Improvement of this pessimistic outlook regarding the corruption, monopoly etc. commenced with the democratic changes in year 2000. Legislation was reinforced, as well as control of sale and trade of wood. The Law on Public Procurement¹⁰ established the procedures regarding the public enterprises for forest management as well as the Directorate for Public Procurement. Also the conduction of value added tax was established as well as a rigorous control by the financial authorities. Changes brought private companies into the legal frame, regardless of their previous activities. However, the habits formed in earlier periods related to corruption, false declaration of quality and quantity are still present but in much lesser extent. Until now, there were no significant items relating to this issue by police and judicial authorities, which does not mean that the phenomenon is not present in practice. It can be expected that after the introduction of forest certification in wood processing companies (the so-called COC-chain of custody), due to the market demands in wood products, the illegal activities will be significantly reduced because of the threat of market loss.

Today, the conflicts between public enterprises for forest management and wood processors exist mainly due to a clear disparity between the needs for raw materials and forest production capacities. Public companies have established sales procedures which aim to facilitate equal participation of all customers. These criteria are still not fully effective but give significant results, subject to rating by an independent foreign audit in the process of forest certification. Among others, in the process of buyers ranking, relevant elements for validation are production capacities, regularity of payments, current cooperation, the degree of finalization and the price. Disparity between supply and demand with a demand double as high means that there is no technical problem of wood placement (except this year due to the global economic crisis).

1.6.2. Wood industry

Wood processing and furniture production in Serbia represent industries with a long tradition. As a result of exceptional abundance of forests in Serbia, sawmill wood processing has been developed even at the beginning of the nineteenth century. Both industries had a significant role in the development of Serbian economy in the past two centuries.

¹⁰ 2002. Official Gaz. 39/02

Table 15: Sale of forest assortments, 2003-2007 (in thous.m3)

Year	Sawlogs			Pitprops	PulpWood	Fuelwood	Other wood	
	Total	Oak	Beech					Conifers
2003	1676	28	238	92	21	88	838	371
2004	1722	24	245	99	8	98	847	401
2005	1640	24	239	110	8	123	779	357
2006	1744	20	259	118	12	117	803	415
2007	1649	23	261	112	12	71	737	433

Source: Statistical yearbook 2008

Serbia is a traditional exporter of wood and wood products. However, during the past decades the amounts of imported wood products have increased significantly. During the 1980s exports and imports in the forest sector were almost in balance. During the period 1991 – 1996 both exports and imports dropped sharply, because of the war and the UN trade embargo. The industry suffered seriously and partly collapsed during that period and could not be revitalized even after removing the trade restrictions.

Political, social and economic changes in Serbia in the last fifteen years contributed to significant measures in the structure of wood processing and furniture industry. With political changes in 2000 and the transition towards open market economy in the forest sector, exports started recovering slowly and the value of wood exports and imports are increasing. In 2008, yearly exports reached some 356 millions USD, while imports were 446 millions USD. There is trade deficit both in primary products and in forest industry products.

The biggest changes have occurred in the segment of the total number and size of companies. Most activity, seen by the number of companies in the wood processing is the production of lumber (655 companies), followed by production of building elements and furniture (379), and other products of wood (212), packaging of wood (166), veneer and board on the basis of wood (41) and impregnation of wood (4). The largest number (over 95%) belongs to the group of small companies with 1-9 employees. Only 3 companies employ more than 250 employees and 32 companies are in the group of companies that employ 50-249 employees. The greatest number of companies for wood processing are registered and perform activity in Belgrade (469), and the following are Bačka District (301), Moravički, Šumadijski and Pomoravski districts (247), and Raska and Rasinski District (203) (Figure 3). Despite the significant growth of exports in the last eight years (the exception are 2002 and 2005) wood processing and furniture manufacturing still have deficit in foreign trade starting from 2002.

However, the most important problem of wood industry lies in the unbalanced capacities of sawmill's wood processing and available (local) resources. The existing number and size of installed capacity in sawmill's wood processing are several times higher in relation to the available raw material resources. As a consequence of the above and a very low technological level of the largest number of sawmill, productivity, capacity utilization and efficiency of production are far below the optimum level.

For these and other reasons, instead of important strategic and profitable export sector of Serbian economy, wood processing and furniture industry is slowly turning into stagnation activities. World economic crisis and the recession whose effects are increasingly felt in Serbia will be worse during 2009.

Table 16. Foreign trade balance of wood processing and furniture industry

	2000	2002	2004	2007	2008
	u US\$				
EXPORT Serbia	1.557.836.588	2.075.208.255	3.595.132.238	8.824.800.000	10.972.800.000
361-Wooden furniture	26.195.825	30.031.635	56.409.825	141.604.307	151.334.236

Export of wood products	71.624.709	54.409.809	89.568.872	193.963.291	204.911.642
Total exports of wood processing and production of wooden furniture	97.820.534	84.441.444	145.978.697	335.567.598	356.245.878
Participation of wood processing and furniture industry in the export of Serbia (%)	6,28	4,07	4,06	3,80	3,25
Forestry	2.488.304	4.816.356	7.307.332	10.426.527	10.405.218
IMPORT Serbia	3.329.827.862	5.613.823.318	10.753.000.000	18.553.600.000	22.999.200.000
361. Wooden furniture	7.305.995	25.044.351	59.379.976	74.302.010	86.776.943
Import of other products of wood	60.155.070	82.517.659	173.475.856	290.928.259	359.495.531
Total imports of wood processing and furniture industry	67.461.065	107.562.010	232.855.832	365.230.269	446.272.474
Participation of wood processing and furniture industry in the import of Serbia (%)	2,03	1,92	2,17	1,97	1,94
Forestry	7.987.002	4.989.914	5.080.742	6.899.961	8.508.175
BILANS (PD+NAM)	30.359.469	-23.120.566	-86.877.135	-29.662.671	-90.026.596

Source: Republic Statistical Office

Exact data about wood quantity (raw material) which were used for further processing by wood processing industry are not available. Namely, Serbian Chamber of Commerce, as well as official statistics, monitor production in financial indicators, while exact quantities of wood are not registered. This type of assessment is not possible to provide without detailed survey in all installations for primary wood processing.

1.7. Forest Development Strategy of the Republic of Serbia

In June 2006, Government of Serbia approved Strategy of Development of Forestry Sector in Serbia. The Strategy on Development includes specific elements that are directly or indirectly related to the activities which are necessary to be conducted in order to suppress illegal activities in forestry.

One of the main goals of the strategy is:

“The Government will ensure the organizational and professional strengthening of the institutions for the implementation of the adopted development strategy and the consistent application of regulations in the field of forestry, as the basic instruments of forest policy, with the efficient sanctioning of illegal actions related to forests”

The leading principles of strategy are:

Sustainability of forest and forestry development

“Forest resources of the Republic of Serbia are managed by the principles of sustainable development, which is regulated by the Constitution of the Republic of Serbia.”

Forest multi-functionality

“Forests are crucially important for the economic development and conservation of all forms of life. Forest resources shall be enhanced and utilized continuously, i.e. they shall be managed consistent to national development goals and the level of social-economic development, as well as based on the overall national policy which is in harmony with the sustainable development and laws.”

“Forest resources shall be especially managed to meet the economic, cultural and spiritual needs of the present and future generations. These needs encompass the forest products and services, such as wood and wood products, water, food for humans and livestock, medicinal services, fuel, recreation, protection of wildlife habitats, landscape diversity. “

Rural development and forests

“Forests are an inseparable part of the efforts made for the revitalization and development of rural districts. The equal participation of forests and forestry in the projections of rural development of Serbia will ensure the faster revival of rural districts”

Increase of forest area and productivity

“Efforts should be made to maintain and increase the area covered by forests and their productivity by the ecologically, economically and socially acceptable methods, by reclamation, afforestation and forest cultivation on the abandoned agricultural lands and degraded and treeless lands.”

Forest management

“Sustainable forest management and utilization shall be in line with the total national development policy and priorities, based on the acceptable national ecological guidelines, taking into account the internationally adopted methodologies and criteria.”

Attachment to international commitments and agreements

“The Strategy and legislation in forestry are based on national interests and shall be harmonized with the confirmed international commitments.”

Forest degradation and environmental impact assessment

“Due to increased pressures and demands to forest ecosystems and resources, efforts should be made to prevent the adoption and implementation of the wrong and harmful decisions of other sectors (finances, economy, transport, etc.) which can lead to forest degradation, primarily by applying the mechanism of environmental impact assessment and by fostering the inter-sectoral co-operation in the solving of such conflicts.”

Conservation of forest health

“The conservation of forest health and viability shall be defined as the obligation and responsibility at the local, regional and global levels. “

The Strategy on Forestry Sector Development of the Republic of Serbia was adopted within the project of a new legal and political framework for the forestry sector. It has been planned, within that frame, adoption of Law on Reproductive Planting Material of Forest Trees, Law on Forests and the Law on Venery and Hunting as well as Strategy on Forestry Development and the National Forestry Action Program. The Strategy was planned as a basic document, which defines the sector policy, while the Action Program and set of the laws are in the function of its realization. Practically, implementation of this document will be implemented by action program and laws, as well as by by-laws and action plans of lower rank, which certainly includes an Action Plan on Prevention of Illegal Activities in Forestry of Serbia. Currently, the National Forestry Action Program is in draft form and it is realistic to expect that in the next 2010 years it will be adopted. Law on Forests is now being processed within the Ministry of Agriculture, Forestry and Water Management, and will be submitted to the Parliament for adoption in the coming months. Upon completion of such a defined set of documents, much more favorable conditions will be made for realization of the objectives of the Strategy. However, their implementation will certainly partly depend on financial support on the state budget support.

1.8. International commitments affecting the forestry sector

Serbia is signatory to many international commitments dealing with environmental protection, which influence directly or indirectly the development of the forest sector. The most significant international commitments affecting the forest sector are the following:

- UN Framework Convention on Climate Change (UNFCCC) (1992)
- Convention on Biological Diversity (2001)
- Resolutions of the Ministerial Conference on Forest Protection
- Convention on Long-range Transboundary Air Pollution (1979)
- Convention on Wetlands of International Importance (Ramsar) (1977)
- Convention on International Trade in Endangered Species (CITES)(2001)
- Protection of the World Cultural and Natural Heritage (1972)
- Council Directive No. 43/92 on the conservation of natural habitats and of wild fauna and flora (1992)
- Council Directive No. 409/79 on the conservation of wild birds (1979)
- Council Directive No. 105/99 on the market of forest reproduction material (1999)
- Council Directive No. 2158/92 on EU forest protection against fire (1992)
- Council Directive No. 3528/86 on EU forest protection against atmospheric pollution (1986)
- Council Directive No. 1615/89 on the establishment of information-communication system on European forests (1989)
- Council Directive No. 89/68 on framework law of the member states on the classification of wood raw materials (1968)
- Council Directive No. 1232/98 on statistical classification of products per activities in the European Economic Community (1998)
- Natura 2000.

By signing and ratifying important international documents, Serbia is committed to sustainably manage all its forests. In line with other European countries, which have reformed or modernize their development strategies and forestry policies in accordance with new circumstances and international commitments, Ministry of Agriculture, Forestry and Water Management (Directorate for Forestry) also defined the need to identify political and strategic framework for development of forestry sector in accordance with accepted obligations.

1.9. International Support to the Forestry Sector

Since year 2000, after the democratic changes, international support to forestry sector has been significant. First international assistance to the sector was by the Food and Agricultural Organisation of the United Nations through the project of technical support (TCP). Through this project, revitalization of forestry sector started, primarily in terms of capacity building and development of strategic documents. Assistance to the sector of forestry was significantly supported by the Government of Finland as well as Government of Norway and FAO.

In the period 2002-2008 in the forestry sector following projects have been realized:

- Food and Agriculture Organization of the United Nations, technical cooperation programme (tcp/yug/2902), “Institutional development and capacity building for the national forest programme”, 2003. This programme supported the development of the new Serbian Forest Policy, as well as a revision of a Forest Law.
- UN Organization for Food and Agriculture (FAO) - «Development of forest sector in Serbia (GCP/FRY/003/FIN)», 2005-2008. Project was financed by the Government of Finland.
- European Institute for Forestry - Joensuu, Finska (EFI) – “Strengthening capacities of education and training for forest policy and economics development in Western Balkan region” (FOPER)
- Norway bilateral assistance, Forest Sector Programme - Phase 1,2,3 in the period 2003-2007. This Programme was financed by the Government of Norway and implemented by the Norwegian Forestry Group.
- ODA – Slovak Fund, “Developing capacities of the private sector for sustainable management of forests in the Republic of Serbia” and “Strengthening of skills and infrastructure for protection and regeneration of forests in Serbia, 2006
- ADA – Austrian agency. Realization OBF (Project No.: 8064-01/2004) Participatory development of Plan for the implementation of the restructuring of the Public Enterprise"

In the above listed projects there were no projects that directly affected the capacity building and prevention of illegal activities in forestry. However indirectly, through the strengthening of institutions, revision of legislation etc. further improvement in this area can be expected, as a result of listed projects.

Currently in the forestry sector there are no international projects ongoing or in the pipeline with the exception of some projects related to the use of biomass, which will be implemented and funded by FAO.

1.10. Corruption Perception Index (CPI) of Transparency International (TI)¹¹

The annual *Corruption Perceptions Index (CPI)*, first released in 1995, is the best known of TI's tools. It has been widely credited with putting TI and the issue of corruption on the international policy agenda. The CPI ranks 180 countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys.

CPI index value means that higher value indicates a lower level of corruption. The highest value index is 10.

¹¹ http://www.transparency.org/policy_research/surveys_indices/cpi/2008

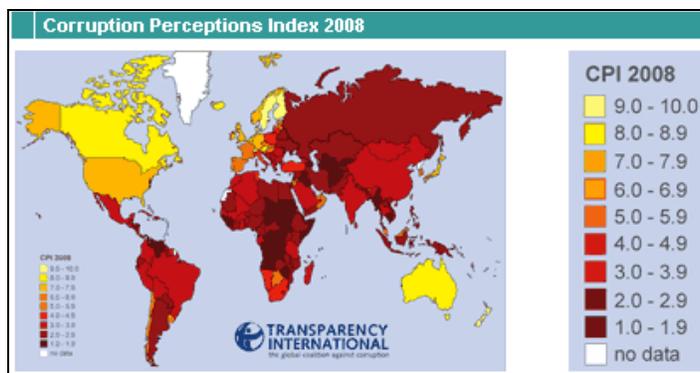


Table 17: Corruption Perception Index (CPI) for Serbia 2003-2008

Rank	Index						
	2008	2008	2007	2006	2005	2004	2003
	85	3.4	3.4	3.0	2.8	2.7	2.3

Looking at the CPI estimate for Serbia, it can be concluded that index has a significantly small value, which indicates still high level of corruption. Serbia is in relation to the list of 180 countries on the 85 place, which is very unfavorable position. Encouragement makes the fact that is present trend of value increase, so that the initial value of 2.3 in 2003 increased for 1.1 points currently.

1.11. Main driver of illegal logging

Main driver of illegal logging and other illegal activities in the forestry is difficult economic situation. Economic situation and high percentage of population leaving on the edge of existence are main reasons of illegal activities in all social spheres. Forest is especially suitable for various illegal activities, because it's spread on a large area and it is practically impossible to ensure its full protection. Any increase of degree of protection at the same time cause a significant increase in costs of forest management, which are often economically unacceptable for state-owned companies and forest owners.

Perpetrators of illegal logging can be divided into four groups:

1. People on the edge of poverty, which due to the inability to purchase firewood for their own needs stealing wood
2. Poor, mostly rural population, which usually steal and sale of wood to a lesser extent for the purpose of their survival
3. Rural population traditionally supplied by the illegal wood from state forests. Namely, there are some areas where entire villages are considered as "wood thieves" and where constant clashes and conflicts between forest guards and the population exist.
4. Organized groups and individuals who conduct illegal activities in order to make a profit. In this category are certainly applies spectrum of various illegal actions - forest theft, fraud, corruption etc.

For the first two groups, the main motive for the wood theft is certainly the the social and economic situation.

In the third group it constitutes a tradition and habit. In this case, the existing thinking is that it is better to log wood in the state forest than in forests in their possession.

The motive for the fourth group is certainly a profit, and for that purpose, provision of wood under the conditions that are more favorable than the market conditions.

Hence, the difficult economic situation is certainly significant driver of illegal loggings. However, as already stated, there is a significant imbalance between the production capacity of plant for wood processing and wood production capacities or market offer. This opens significant space for the supply of wood outside the legal channels. Special risk represents large number of small plants for primary wood processing (sawmills) that are not registered as a company or are located in the woods and on rough terrain, and are therefore outside the control of a permanent inspection authorities.

Also, insufficient institutional capacity and institutional weaknesses, inadequate sentence policy etc. significantly affect the extent of illegal activities.

As the main drivers of illegal logging, we can enumerate the following:

- Difficult economic situation and poverty;
- Insufficient forest areas in private ownership in certain areas, on which would people meet their own needs for wood (Vojvodina);
- Difference of supply and demand. Imbalance between the forests potential and capacities for wood processing;
- Insufficient supply of alternative energy sources, which resulting in increased demand for firewood;
- Institutional weaknesses of competent authorities, insufficient infrastructure, lack of knowledge, corruption etc.
- Inadequate monitoring;
- Bad sentence policy (Legislation);
- Weaknesses of judicial authorities functioning;
- Insufficient interest of police authorities for this type of illegal activities;
- Bad inter - institutional cooperation regarding the preventive and repressive activities, lack of coordination, cooperation, information exchange and dialogue between stakeholders involved in the prevention, detection and prevention of illegal actions;
- Insufficiently transparent procedure of public sale of wood;
- Lack of public awareness and pressure on the illegal activities on factors of illegal activities and low level of civil engagement and part of civil society in public control of forest resources use in general.

2. LEGAL PROCEEDINGS AND PROCEDURES IN THE AREA OF FOREST USE

Procedures and documentation required in the forests use and wood trade in the state and private forests are significantly different. The main difference is that public companies for forest management, which are also users of forests in state ownership, have the legal rights to carry out, by their professional services, all the necessary procedures and establish the appropriate documentation. Procedures relating to these companies are also required for other companies possessing and managing forests, regardless of whether they are privately owned, owned by the church or anyone else. However the private forest owners, as individuals, are not able to perform professional tasks by themselves, but are relevant to appropriate services which were established by the state in public enterprises.

Table 18: necessary documentation and procedures in the process of wood production

Suppliers	Required by	Procurement point		
		Standing forest	By the road side	At the mill gate
Forest owners	Law	- remittances of trees for cutting	- payment of fees to the RS budget -shipping document	-shipping document
	Company			
Forest enterprise	Law	-Forest management plan -Annual plan -marking the trees	-bill of loading - payment of fees to the RS budget	-bill of loading -invoice
	Company			annual contract
Wood traders	Law		-bill of loading -bill	-bill of loading -bill
	Company			

2.1. Procedures in the state forests

Procedures which are necessary to be implemented in the state-owned forests are prescribed by Law on Forest and they are accordingly applied for other companies. Legislation requires clear implementation of procedures in each of the stages that must be implemented to the final user – customer.

Preparation of forest use starting by making a Forest Management Plan (FMPr). Forest management plans are adopted every 10 years based on previously conducted inventory of forests. These plans are developed in accordance with a special act of the Ministry of Agriculture, Forestry and Water Management. Plans are prepared by forest management companies or other companies by a person with appropriate qualifications. The plans have to be approved by the Ministry of Agriculture, Forestry and Water Management before implementing any logging. After the expiry of the previous, the user of forest is required to adopt a new FMP. If the FMP is not made within the prescribed period, logging is allowed only in the first year after the previous plan is expired and up to the extent of 1 / 10 of the planned volume from the previous plan.

The second level of planning involves developing Annual Executing Forest Management Plans, a requirement for allowing logging. These plans are prepared based on previously marked trees for logging, which is done by forestry engineer with the appropriate examination. Marking (allocation) of trees for logging may be done only during the period of vegetation. Marking must be undertaken well before the logging. Plans must be in accordance with the FMP in relation to scope of logging and objectives and the measures that need to be implemented. Logging without these plans is in violation with the Law on Forests.

Having fulfilled these two conditions, logging is allowed. If the forest management companies implement these works by themselves, then all the relevant safety measures and forests protection measures must be implemented. If the company engages other contractors, in the case of public enterprises, it is necessary to have complied with procedures of public procurement, in accordance with the Law on Public Procurement (2002. Off.Gaz. 39/02), in order to choose the most favorable contractor. An appropriate contract is signed with the selected contractor. Procedures for receiving wood at the field, has produced by the contractor are not required by Law in specific form, and companies has these procedures and internal documents on their own. Mostly they are related to the quantitative and qualitative reception of made wooden assortments, as well as to the quality of completed works. In the case

logging is not in accordance with the Law, harmful for forests etc., the forest management company is held responsible and not the contractor. Mostly in practice, after logging contractor finished the job, company receives produced assortments by commission, with an appropriate document. This document is practically inputed document for the company's storage. Further in the process of assortments uploading, shipment and sales activities for the customers is conducted by forest management companies. So, during the shipment to the final buyer, in the forest on the woodyard, measurement is conducting and appropriate assortment document "bill of loading" is issued - in which is clearly noted class and quantity of each individual assortment, the final buyer, transportation mean etc. Transporter and buyer prove the origin of goods by this document. Also at the front of assortment, the appropriate mark is engraved, with number by which is identified a person that uploaded a goods as well as a company from which goods originate. In some companies are engraved and plastic boards with the serial number or bar code that simply marks assortment, but this is not a legal obligation.

By mentioned bill of load, company that bought the goods, or trunk, or firewood, further forming their input documents, by which it obliges woodyard (storehouse) business and by which proves the origin of incoming wood.

The wood shipping "bill of load" significantly reduces the possibility of abuse because both parties become subject of control, not just for forestry inspection, but for financial and market inspection, especially regarding the value added tax (VAT) etc. Possibilities for any illegal activities are in steps prior to the preparation of documents for shipping, and through the possibility of false declaration of goods regarding poorer quality classes or types of wood. A reduction of the quantity is normally not possible because data on quantity are registered upon receipt of goods by the contractor. Other illegal activities that were noted are related to the trees logging without remittance, by the contractor. This is especially present in cases where the contractor also is the buyer of wood for own sawmill. This case is avoided in business practice of public enterprises because of the problems with controlling of wood flow.

In some cases wood is sold at the "stump" in standing posture. This method of sale is avoided in practice, but due to low production costs, this type of sales is continuously increasing. Currently this activity is less notable in forests of lower quality, where the production of firewood is dominant. With such sale contractor is customer at the same time, increasint the likelihood of illegal activities (trees logging without remittances, the abuse of quantities, etc.) and, thus, requires adequate control and anti-corruption mechanisms.

The above listed procedures in state forests are generally respected and are subject to the control of forestry inspection. However, at the technical level, there are significant possibilities for improvement of its implementation. Usage of information technologies – by using GPS and field's PDA computers, it is possible to reduce possibilities of abuse and to simplify procedures for documents and other procedures, in the chain of control of wood traffic from the place of logging to the plant for processing. Certain progress in this direction has been done in the neighbouring forest organizations in Croatia and Slovenia, whose experience may be helpful.

2.2. Procedures in the private forests

Procedures mandatory for private forests are significantly different from those related to state forests and forest management companies. Procedures are established in ways that distrust toward the private owners can be clearly recognized. Private forest owners are treated as subject who can't provide appropriate forest management.

The basic planning document that is required in order to manage private forests is so-called private forest management program¹² which is a Forest Management Plan for private forests. Obligation regarding the existence of this plan is prescribed by the Law on Forests, while the companies for forest management are responsible for drafting and adoption of the document, and also, according to Law on Forests all costs related to its preparation are burden of forest owners. However, today in Serbia there is no document of this type which is valid, because the law did not introduce appropriate sanctions for non compliance with producing this document. Furthermore, there is no clearly defined methodology for making this document, for forest measurement and etc., but the anticipated new Law on Forests will modify the current regulations regarding this issue. However, the Law allows forest management to be performed on the basis of so-called Provisional Annual Management Plans for private forests, in which planning is done based on the estimated values of forest volumes and experiential norms. These Plans are made by companies for forest management, and approvals are given by the Ministry of Agriculture, Forestry and Water Management. Contents and existence of previously mentioned documents are unknown for the owner and they still do not participate in decision-making process.

A forest owner wishing to harvest forests for its own use or for resale, has to priorly consult professional services of the forest management companies, by submitting a written request form to the Forest Directorate closest to his place of residence. This request has to include evidence that he owns the land subject to logging. It has to be submitted in the year preceding the year of logging, with the view to organize work of professional services. The professional body (forest management company) go out in the field to mark the trees to be logged, this is preclusively carried out in the presence of the forest owner partly to allow them to take responsibility over property borders.

After receive the written request fro the forest owner, professional forester marking and measure trees for logging and registering trees for cutting in to the evidence list. In the finale step of the procedure, the owner signs the evidence list and retains one copy. The owner receives payment slip, stipulating the appropriate fees to be paid into the account of the state budget in the amount of 3% of the value of wood. Upon finalizing this procedure, the owner is allowed to log the marked trees.

Mainly, owners carry out the actually logging themselves, however, it is increasingly common that city dwelling owners engage private companies for the logging and sale.

After the logging, owners are not allowed to move produced assortments from the place of logging, until the professional service for private forests do spot controls of logged wood and issue appropriate documentation (so-called shipping document). These steps are necessary for marketing the logged wood. Before issuing the documentation for trading, payment of fees for forest use is controlled. Thereafter the owner can transport the cut wood either to his household or to be sold on the market.

Practically, this system is established to combat and discourage illegal activities. However, one drawback is that it is costly considering the fact that there is huge number of plots and that there is over 500.000 private forest owners and on the other hand that there is only 320 engaged professional persons. The main explanation for the insufficient development of professional services is the lack of financial resources at state level. Fees that are paid for forest use by the owner, covers only 30 – 40% of needed funds. This leads to the situation that forest owners very often logg wood without engaging the professional services, in violation with the Law on Forest, which might only be sanctioned with non-significant penalties.

Furthermore, the procedures applicable for private forests are subject to constant criticism, not only of private forests owners, but of professional forestry services as well. It is estimated that procedures are very complicated and in practice, discourage owners to respect and implement them. These procedures are established due to distrust of the competent state bodies towards the private forest owners, taking the assumption that forest owners are not willing to sustainably manage their forests because the lack of sufficient knowledge and because in

¹² According to the Low of forestry, the official name of the document is “program for private forest management”. Basically it is long term (10years) forest management plan.

difficult economic conditions they exclusively see economic interest in the forests, regardless the long-term consequences. Albeit some of these assumptions are justified, the system needs to be improved towards raising awareness and knowledge of forest owners, in order to enable them to independently carry out most activities in forest management in near future. This approach would significantly increase the level of responsibilities of forest owners. Initiatives for association of private forest owners, their ongoing education and etc. can give significant positive contribution to this.

2.3. Control mechanisms in implementation procedures for forest use

Control mechanisms in implementation of legal procedures in forests use and wood shipping are multiple and they are implemented within the internal control of companies for forest management from one side, and official republic's inspection from the other side.

Regarding the preparation of wood production in terms of planning documents development and remittances of trees for logging, the first level of control is done by the enterprise for forest management at the level of the Cabinet of the General Director. This control is implemented based on "random sample" and is referring to the procedures implementation and expertise of executed works. The state forest inspection also conducts detailed inspection of these works. Practically the company is not allowed to start forests logging, prior to the inspection performed by the forestry inspector and the approval for the work execution.

In the next stage, which refers to the forests logging, control is mostly performed by local forest holdings, services that are responsible for forest use activities. State forestry inspection is not obliged to conduct permanent inspection of the work execution, but do that optionally. The inspection mainly verifies evidence of produced assortments, compliance with plans, as well as any damages that are made in the forest during the works.

When the wood is in traffic, control is performed by number of governmental authorities: traffic police during the traffic control, forestry and market inspection. In the case of detection of illegal transport of wood, forestry inspection is invited immediately in order to make record and submit appropriate application to competent court. Traffic controls are significantly intensified in recent years by increased engagement of all mentioned actors.

In private forests, controls in logging procedures are mostly related to controls in wood trade. Professionals for private forests have an obligation to conduct control of logging, however these controls are insufficient due to lack of manpower. In the case of detection of illegal logging, a report is submitted to the forestry inspector who upon conducting a field visit files an application to the competent court.

In all cases, except for traffic control, police presence is insufficient. Police mostly go out on the field and undertake activities on the request of forestry inspection and companies for forest management, mainly on the basis of their needs assessment. If it is a serious crime, the police operate independently and if necessary seek the assistance of other authorities from the field of forestry.

Voluntary systems of wood origin control and its operations in Serbia exist so far only within the forest certification according to FSC standard. Respecting the market requests and necessity of improvement of business activities in forest management, PE „Srbijašume“ and PE „Vojvodina šume“ have certified significant forests areas.

Weaknesses in the control of illegal activities in forestry are present at all levels. Very often, it is identified by control services as a lack of manpower and technical capacity for their implementation. Equipment with field vehicles of all services is mainly insufficient. Lack of other equipment, fuel, etc. is often the cause of failure of adequate control.

2.3.1. Competencies of Forest Inspection in the system of inspection and forests logging control

The most significant institution which supervise Serbian forests is service of forestry inspection (forestry inspection), within the General Inspectorate of the Ministry of Agriculture, Forestry and Water Management, with 72 inspectors totally. Internal control within the PE “Srbijašume” is also very important in this system.

Obligations, mandates, duties and responsibilities of the inspector (Annex 7) are defined by general regulations (Law on State Administration, Rules on Work in the State Authorities), and by special laws (Law on Forests, Law on Hunting, Law on Plant Protection, etc...).

According to Article 80 of Law on Forests, forestry inspector jobs can be performed by the graduated forestry engineers which has passed the expert examination and practice in the business of growing and utilization of forests for at least three years.

According to Article 79 of the Law on Forests, forestry inspector is authorized and responsible for:

- reviewing all forest works, facilities, equipment and devices, as well as all places where the logging is performed, and where the forest products are stored, processed and exported from the forest, or put into traffic;
- controlling application and implementation of standards from the area of forestry;
- supervising implementation of basis, programmes and Annual plans of execution;
- controlling whether the specific basis, the Program and Annual plans of execution are adjusted to each other and with the general basis;
- reviewing business books and other documents when it is necessary to control implementation of regulations and measures relating to the forest;
- controlling weather on plant for primary wood processing is processed wood with hallmark and weather it has bill of load and shipping document;
- taking other measures and actions for which is authorized by special regulations

In the case of detection of illegal activities, the forestry inspector is obliged to:

- temporarily suspend logging in the pipeline under the conditions specified by the relevant law and regulations issued based on law;
- order execution of works determined by basis and programmes, whose failure would cause harmful consequences;
- temporarily confiscate illegally logged wood, wood illegally placed on the market and other illegally appropriated or produced forest products, as well as objects by which this actions are done;
- order measures to prevent damage in emergency cases in which damage of public interest could occur.

During the field inspection, after executed loggings, when assortments are put in trade, inspectors verify legality, according to the following criteria:

- Trees marking with adequate hallmark on all trees, including assortments. Hallmark must be from the both side of the trunk, while on firewood it is necessary to be put on at least 75% of logged wood. Hallmark must be black, if originate from state forests, or green if originate from private forests;
- Document by which is wood put in traffic, must contain data on wood origin (exact location), quantity (m3), full data on buyer, transporter, as well as complete data on place of debarkation or final location. Also, the document must have a print of hammer in the place of the hallmark, and the signature of the person in charge of transport. There are 4 types of hallmark which are used in Serbian forestry: accompanying hallmark, remittances hallmark, hallmark of forestry offence and control hallmark.

2.4. Institutional capacity

Institutional capacities necessary for prevention of illegal activities and criminal actions in forestry are insufficient, both in human resources and material equipment (vehicles, equipment, etc.). In addition the existent staff lacks motivation and need improved professional skills on work combating illegal logging.

Namely, within the forestry inspection there are about 70 forestry inspectors responsible for inspection activities, in comparison some 650 forest guards work in forest management companies. Also, around 300 forestry technicians work in the private forests sector. Practically, over 1500 persons in the forestry sector are directly or indirectly carrying out duties for preventing of illegal activities.

Within the forests management companies work professional persons which are responsible for court and other administrative procedures regarding the illegal loggings and other activities. Those are mostly legal experts involved in all necessary procedures in relation to court proceeding.

These services are suffering from inadequate equipment. Forest inspection mostly have available vehicles types of Yugo and a smaller number of field vehicles, while on the other hand, the amount of fuel that is available and that is required for daily controls is below minimum. Forest guards in the public enterprises are in even worse situation since at best they have motorcycles and often, only travel by bus. Equipment for forests measurement is very rare and old-fashioned, and cameras, computers etc. are usually not available. Only the availability of mobile phones is better.

Within the Ministry of Internal Affairs the police authorities are practically the main institutions responsible for the suppression of illegal activities in Serbia. However, there are no specific services within these authorities responsible for criminal activities in relation to forests and other natural resources. There have been unsuccessful initiatives to initiate the establishment of a green police and in practice, some officials, are also responsible for these tasks as well. Particularly important is the fact that it is almost impossible to provide adequate investigation (due to scarce capacity) in cases where the perpetrator of the criminal act has not been identified.

All participants are characterized by insufficient professional competences. Even with the forestry inspector, the lack of knowledge has been noticed regarding important forestry issues as well as judicial and other administrative procedures. As a result of this, it appears that committed offenses in the field are not observed and a large number of court applications are rejected by the court due to the procedural failures. Trainings and education are rarely organized, especially for forests guards. For the forestry inspection trainings are organized 1-2 times per year, but their preparation and implementation needs improvement. Within the public enterprises for forest management trainings are usually implemented with aim to educate forestry engineers professionally, mostly regarding the problems of forest management but not specifically on the problems of illegal activities prevention.

A special problem regarding the human capacity for combatting illegal activities is insufficient knowledge about the problems (Law on Forests) by the police and judicial authorities. Joint trainings with the judicial authorities are practically not carried out, and there were few attempts not producing the desired results. However, the experiences of other state authorities, particularly the Republic Inspection for Fisheries, show that intensive trainings of judges can give very good results, and that their interest in that regard is at a high level.

It is important to conclude that at the level of state forestry there are no particularly trained experts who are specialized in the area of illegal logging. Faculty of Forestry and institutes are

not dealing with these problems. Therefore, the measures that are being implemented are based on experience and personal evaluations.

There are very few organizations from the NGO and other civil society organizations active in the field of forestry and particularly in the part of prevention of illegal activities. The largest non-governmental organization that is related to forestry is "Pokret gorana Srbije", however, it is not active in the prevention of forest logging specifically as its activities are related to afforestation, the production of planting material and training of youth in the protection of nature and forests. They organize every year campuses for training of young people regarding the forests preservation. The second NGO is "Inicijativa za održivo šumarstvo", which is established in order to promote forests certification as well as forests protection in general. The local NGO from the area of South Serbia "Vukovi sa Vlasine" is practically the only one active regarding the illegal activities prevention. That NGO conducts its activities by putting the pressure on competent state authorities, especially on Ministry of Agriculture, Forestry and Water Management and PE "Srbija", through the media, demanding that their involvement is much higher in order to prevent illegal actions. However these and other NGOs are not sufficiently equipped and trained to provide adequate evidence of observed illegal activities that could be used in court proceedings. Some other NGOs, mainly from the area of environmental protection periodically undertake certain activities from local importance.

Serbia does not have specifically defined official bilateral relations with neighboring countries to prevent illegal loggings. The established relationships relate to the smuggling of all kinds of goods, including wood. Regarding the exchange of experiences in order to build capacities by exchange of positive experiences and practice with other countries and international organizations, permanent activities of this type do not exist. Exchange of experiences and capacity building are mainly conducted within the realization of certain projects that were time-limited. In bilateral relations the most intensive cooperation were with forestry sector from Norway, Austria, Finland, Canada, Slovakia etc., mainly on the basis of implementation of a specific project. In addition, unofficial interinstitutional cooperation is still present, particularly with neighboring countries including Bosnia, Croatia, and Slovenia.

The opportunities for developing the institutional capacities for the prevention of illegal activities in forestry are very modest. Institutions mostly have their own, very modest, financial resources that can be used for organization of trainings or service equipping. Taking into account the financial crisis and reduction of states budgets, it should be expected that these resources will continue to shrink. Beside their own budgets, there are certain state funds that have earmarked funds for these activities. The first one is the Fund for Environmental Protection, whose funds for the forestry have not been used up to date, even though there are possibilities for that. Another potential source of funds is the budget of the Directorate for Forests, receiving revenues from fees associated with logging. Currently, these funds cannot be used for this purpose according to the existing law. However, with the new Draft Law it will be possible. Also, the own funds of the forest management companies' can be allocated for this purposes. Regarding the foreign funds the situation is more favorable. In order to develop capacities, up to date, forestry sector has used the funds given by Norway, Finland, Austria, Slovakia, FAO, TAIEX Fund EU, OEBS etc., so that there is a real opportunity to seek support for this type of activity as well. Also, the pre-accession funds (IPA) could represent a good opportunity for the projects on capacity building for the prevention of illegal activities.

2.5. Forest certification process

Forest certification is developed together with the growing trend of "ecological labeling" of products. It tries to connect "green consumers" with the manufacturers who seek to improve their forest management practices and achieve better market access and higher annual income, under the condition that an independent assessment of forest management operations is provided. Certification is implemented by NGO sector and private companies. Assessment in the process of certification is based on specific social, environmental and economic criteria.

Majority of certification that is used in Europe are Pan-European (PEFC) or FSC (Forest Stewardship Council). FSC certification scheme is accepted in Serbia. FSC is internationally adopted, approved by the most organizations dealing with environmental protection, and is firmly based on premises of independent assessment by third party. FSC has very strong international organization, rigorous accreditation, assessment and inspection regime and the most experience in certification.

The process of introduction of forest certification began four years ago. Until now, the total certified area is 387.000ha, of which 256,000 hectares are in PE "Srbijašume" and 131.000 hectares in PE "Vojvodinašume". Currently in Serbia only state owned forests have been certified. The plan is to complete certification in the following years for all state-owned forests. In the case of forest management companies, the control is regarding forest management this kind of impartial control will have a significant impact on improvement of forest management quality, which includes the protection of forests from illegal logging and other illegal activities.

However, after the certification of forest management, the next important step in the forests certification refers to the certification of wood products chain control (COC - Chain of Custody), including companies for wood processing beside the companies for forests management. By COC certificate, companies for wood processing, business to business customer / supplier, trade or retail can assure their customers about the origin of their products. Certificate from the supervisory chain of certification as well as supporting documentation, inform consumer on wood participation that come from certified sources in certain products. This means that all wood that enters the production process must have full documentation guaranteeing its origin. Until now, ten companies for primary wood processing got COC certificate and procedure is still in progress. Practically, every wood assortment is strictly controlled and possibility of abuse in terms of use of illegally logged wood is excluded.

A number of wood processing companies are currently subject to the process of voluntary certification of control chain (COC chain of custody). It can be expected that this type of voluntary certificates will contribute to better control of logging and wood trade. There is no other voluntary licensing scheme for the time being in Serbia.

Forest certification is strongly supported by the state and other institutions. Introduction of forest management certification and COC certificate will significantly increase confidence of public and supervisory bodies in the work quality of all participants in the chain, but will also minimize possibility of illegally logged wood use, with the threat of losing the certificate, and thus won market. According to the plan of competent Ministry and PE, in the following years, all forests in PE should be certified for forest management according to FSC scheme. PEFC scheme is planned for private forests, because according to its definition is more re-adjustable for the group certificates. Also, it is expected that based on market request, most of the companies for wood processing will establish COC certificate trade control chain.

NGO „Initiative for sustainable forest management“ prepares the national standard for sustainable forest management according to PEFC certificate scheme, which should additionally strengthen the penetration and market uptake of voluntary certification and licensing.

One of the problems with negative impact on further development of forests certification is the cost of certification. The State has subsidized costs by its budget funds for the companies for forests management. However, in wood processing, all costs are the burden of the company, being a disincentive. Companies that so far have introduced the FSC standards in business have not modified their prices in order to integrate the new costs, and it can be expected that the certification process will not further affect wood assortment price.

3. DEFINITIONS OF ILLEGAL LOGGING

3.1. International definitions

A globally accepted definition of the term illegal logging does not exist, because the national legislations treat this phenomenon in different ways. However, under this notion are usually implied practices or activities connected with wood harvesting, processing and trade that do not conform to law. Illegalities occur right through the chain from source to consumer, the harvesting procedure itself may be illegal, including corrupt means to gain access to forests, extraction without permission or from a protected area, cutting of protected species or extraction of timber in excess of agreed limits. Illegalities may also occur during transport, including illegal processing and export as well as misdeclaration to customs, before the timber enters the legal market.

Different organizations and authors have provided more definition of the concept of illegal cutting. Smith (2002) uses the term illegal logging to refer to “timber harvesting-related activities that are inconsistent with national (or sub-national) laws.”¹³ The Confederation of European Paper Industries (CEPI) (2002) considers illegal logging to be “when timber is harvested in violation of national laws.”¹⁴ FERN (2002) and Brack and Hayman (2001) define illegal logging as follows: “ Illegal logging takes place when timber is harvested, transported, bought or sold in violation of national laws. The harvesting procedure itself may be illegal, including corrupt means to gain access to forests, extraction without permission or from a protected area, cutting of protected species or extraction of timber in excess of agreed limits.”¹⁵

According to the EU definition, illegal logging is when the timber is harvested, transported, processed and/or traded in contravention of the **national laws of the country of harvest** and certain international treaties such as the Convention on International Trade in Endangered Species (CITES).

Elaborating more the notion of illegal harvesting FAO and UNECE ¹⁶ has given a detailed list of activities in forestry, which should be treated as illegal. These activities are divided into 5 groups:

Illegal occupation of forestlands

- Invasion of public forested lands by rural families, communities or private corporations to convert them to agriculture or cattle ranching

¹³ SMITH, W., 2002. "The global problem of illegal logging." *ITTO Tropical Forest Update*, Vol. 10, No. 1, p. 3.

¹⁴ CEPI, 2002. *The European Pulp and Paper industry's position against illegal logging and the trade of illegally harvested wood*. Press release, August 26, 2002

¹⁵ FERN, 2002. *Illegal logging, and the global trade in illegally sourced timber ; a crime against forests and peoples*. April 2002. p. 3

¹⁶ Illegal Logging and Illegal Activities in the Forestry Sector: Overview and Possible Issues for the UNECE Timber Committee and FAO European Forestry Commission, 2003

- Practice of slash-and-burn agriculture on invaded lands
- Landless peasants illegally occupying forested areas to force governments to grant land ownership rights to them and these governments buying lands from peasants.

Illegal logging

- Logging protected species
- Duplication of felling licenses
- Girdling or ring-barking, to kill trees so that they can be legally logged
- Contracting with local entrepreneurs to buy logs from protected areas
- Logging in protected areas
- Logging outside concession boundaries
- Logging in prohibited areas such as steep slopes, riverbanks and water catchments
- Removing under-/over-sized trees from public forests
- Extracting more timber than authorized
- Reporting high volume extracted in forest concessions to mask the fact that part of the volume declared is extracted from non-authorized boundaries
- Logging without authorization
- Obtaining logging concessions through bribes. Woodlands arson
- Setting woodlands on fire to convert them to commercial uses.

Illegal timber transport, trade and timber smuggling

- Transporting logs without authorization
- Transporting illegally harvested timber
- Smuggling timber
- Exporting and importing tree species banned under international law, such as CITES
- Exporting and importing timber in contravention of national bans.

Transfer pricing and other illegal accounting practices

- Declaring lower values and volumes exported
- Declaring purchase prices higher than the prevailing market prices as equipment or services from related companies
- Manipulating debt cash flows to transfer money to a subsidiary or parent company, such as inflating debt repayment to avoid taxes on profits
- Under-grading, under-valuing, under-measuring and misclassification of species exported or for the local market.

Illegal forest processing

- Operating without a processing licence
- Ignoring environmental and social and labour laws and regulations
- Using illegally obtained wood in industrial processing.

3.2. The concept of illegal harvesting in the national legislation

Looking at national legislation, the concept of illegal harvesting, and generally illegal activities in forestry is not defined by the same global definitions and illegal logging are considered in the narrow sense of the meaning. The concept of illegal harvesting exists in the current Law on Forests, but its definition is not explicitly given, probably believing that it is in itself clear enough.

Practically, activities that are globally accepted as illegal are sanctioned in some measure by existing legislation, but are not brought under the concept of illegal harvesting. All mentioned

activities are brought under forest thefts, illegal cutting, deforestation and others, by Law on Forests, as well as the Criminal Law of the Republic of Serbia.

Definition of the term "illegal harvesting can be found in the Republican statistic as: *“Illegal cutting is every cutting which is carried out in a state forest without licence delivered by authorized bodies. It is shown as the cut of gross-stock of wood”*;

Also, companies for forests management in their acts define as *“the wood illegally logged in the state forests and registered by the district forest rangers and processed by the charges for forest offence”*.

And in addition to illegal cutting, as a term and definition, in national legislation is not treated the same as at the global level, illegal activities, which are listed are sanctioned.

3.2.1. Law on Forests (Official Gazette of Serbia, № 46/91) Articles related to prevention of illegal activities

Illegal logging and other illegal activities, as well as measures that are intended for the prevention, are defined in the current Law on forests in the following way:

Article 40.

The following is not allowed: forest devastation and grubbing; clear cutting if not allowed as a regular regeneration; cutting of rare species; tree thickening; pasture and browse by goats and other cattle; pannage; tree pruning for animal fodder; collection of forest fruits, medicinal herbs and moss; utilization of stone, gravel, sand, humus, soil and other; harvesting of seed stand out of forest management plan; forest usurpation; destruction or ruining of plantations, marks and cut blocks; putting away of garbage and other dangerous matter ; forest pollution and other acts that debilitate yields and endanger forest functions, if not else defined by the law.

Forest devastation refers to all illegal acts that debilitate land fertility and endanger forest production or silviculture or survival of forests and their multiple benefit functions (wide range cutting close to forest grubbing, too intensive selection cutting, tree thickening, and any act causing weed, surface scour land with water or wind and other).

Article 47.

It is not allowed to remove forest wood and wood from the article 3, standpoint 4 of the Law, except fruit-tree wood, from felling strip, nor to buy, sell, donate and transport it, while not marked according to prescriptions and without dispatch note for domestic market.

Timber marking and issuing of dispatch note for wood from state and public forests, and permits for wood from private forests included by forest areas and national parks is carried out by forest beneficiary, and timber marking and issuing of permits for wood from private forests out of forest areas and national parks is carried out by state enterprise authorized by Minister.

Timber marking and issuing of dispatch note, and permit for wood deriving from an area, not considered as forest according to the article 3, standpoint 4 of the Law, is carried out by state enterprises from the article 102. of the Law, on the area with private forests.

As an exception to provision of standpoint 1. of this article, timber marking and issuing of dispatch note, and permit can be performed out of felling strip in case of illegal cutting and removing it from a felling strip, and when authorities have identified no reason for temporary timber deprivation.

Minister creates a prescription on form and content of timber mark, permit and dispatch note form, terms, method and due date of timber marking.

Article 65a.

Physical or legal person, beside indemnity for actual caused damage, also pays indemnity for forest damage according to regulation set by Minister.

Article 69.

Beneficiary performs forest watching and conservation against illegal appropriation and exploitation, fire and other illegal acts (in further text: forest watching). Beneficiary organizes service for forest watching in order to protect forest. In case of greater forest menace caused by illegal utilization, the Government of the Republic of Serbia might initiate special protective measures.

Article 70.

Forest guard has an authority and an obligation to:

- 1) Identify persons caught in criminal acts and offences according to the Law or persons suspected to have committed such crimes if there is no other way to identify them;
- 2) Inspect all kinds of vehicles and loads for wood transport in order to locate criminal acts and offences;
- 3) Inspect storage of wood, except apartments and other premises, in order to locate criminal acts and offences;
- 4) Temporarily confiscate illegal cuttings, objects used in criminal act and offence, and objects arisen and obtained by the commitment of such act, and to deliver these objects to the authorities;
- 5) Reestablish and protect border marks against vitiation and illegal utilization;
- 6) Inform beneficiary about removal and vitiation of border marks in case of illegal appropriation of forest and forest land.

Beside works outlined in standpoint 1. of this article, forest guard has an obligation to inform competent inspectorate on illegal acts in managing forests by the owner.

Forest guard must be skilled worker in forestry with at least 3rd educational level of forestry school background, occupation - forest operator in managing forests, or if school background is recognized according to special regulations, and has to fulfill prescribed conditions for wearing a weapon and conditions prescribed by owner who had organized service for forest watching.

Article 71.

Forest guard serves in official uniform, carries a fire arm prescribed by forest owner and possesses identification as forest guard. The identification of forest guard is being issued on a prescribed blank form by forest owner as the employer. Detailed regulation for the content of the identification document has to be adopted by the Minister

There is a lot of difficulties in the implementation of the Law on Forests. This law is outdated and changes are now in progress. Despite the considerable powers given to the forest guardians and forestry inspectors to prevent illegal activities, the situation in practice is different. Without the support of police authorities, these services are almost unable to independently perform control of trade and storage of wood, so that their activities are conducted mainly in the forest at the place of logging. Also, the penalties are weak and undeterrent. Furthermore, judicial authorities do not have enough knowledge to implement the provisions of the law, and thus, illegal activities are rarely sanctioned.

The section of the law regarding the technical aspects of forest management, is applicable and adequate regarding the state forests, although, in private forests it is inefficient and offenders are often too mildly treated. Although the law provides provisions on certain obligatory activities such as preparation of management plans for private forests, it is still poorly implemented after nearly 20 years. Inefficient law implementation, obsolescence of certain provisions, the obligation to harmonise national regulations with EU laws and MCPFE conference led to the necessity of drafting a new Law on Forests, which is now under preparation.

3.2.2. Draft new Law on Forests¹⁷

According to the plan of the Ministry of Agriculture, Forestry and Water Management, the new Law on Forestry should enter the official procedure during the September 2009. Draft Law on Forests is realized within the FAO project¹⁸. The draft Law realizes goals which are defined by the Strategy on Republic Forestry Development.¹⁹ Also, draft Law has more restricted approach toward the problem of illegal activities.

Besides maintaining some old provisions, also relating to the suppression of illegal activities, it features the following novelties:

Duty of sanitation: «Forest owners and users are obliged to perform afforestation as well as areas where the devastation was committed - illegal clear logging or clear logging, or illegal logging or rare species of trees, within the deadline which can not be longer than 3 years.»

Mandates and duties of forests guards: «Made the temporary confiscation of illegally logged wood, tools by which is executed criminal act or offense, and objects that are created or obtained by execution of such acts and to hand over these objects without delay to the competent authority»

Mandates of forestry inspector: "Bring the solution on the temporary seizure of illegally logged wood, illegally usurped other forest products, as well as tools, equipment and transportation means used in these illegal activities"

Hence, the owner or user of state owned forests is obliged to make sanitation of forests which might include forestry subject to illegal logging. Also, forests guards and forestry inspectors were given additional mandates in order to operate more effective.

¹⁷ Draft Law on Forests - version 6.3

¹⁸ Project „Development of forestry sector in Serbia (GCP/FRY/003/FIN)“ 2005-2008, realized by FAO, which were financed by Government of Finland

¹⁹ Strategy of Development of Forestry Sector in Serbia, June 2006, Government of Serbia.

4. ILLEGAL LOGGING

One of the most significant problems, which are present in the management of state-owned forests, is the problem of illegal logging occurring across the whole country. Problem of illegal logging is a traditional phenomena, which is exacerbated in times of socio-economic crises. The last period of increased pressure on forests was in the 1990's mainly due to the economic crisis in the aftermath of UN sanctions and war events in former Yugoslavia. As a result of war events and sanctions, the basic state institutions functioning, having the task to constrain and sanction illegal activities, were violated. Following the democratic changes in 2000, Serbia embarked on extensive reform of the institutions. However, some of the former problems related to illegal loggings and other illegal activities in forestry are still present. This is particularly reflected in the lengthy court proceedings, soft penalty policy, and often complete absence of adequate penalties for perpetrators of illegal actions.

The main reason of illegal logging in Serbia is the difficult economic situation, mainly the result of households logging for firewood or for small-scale sale at the local market. Illegal logging occurs in different degrees in all categories of forest ownership. However the most vulnerable to illegal logging are the forest of private owners who live remotely from their forest properties and who are not able to take care about their properties. The most frequent assortment that is subject of illegal logging is firewood, which is sold to private households, without documentation and bills. This is the traditional way of firewood sale in Serbia, and customers generally do not inquire about the wood origin or request a proper bill convinced that the wood is cheaper this way. However, the migration from rural areas to cities, changes in heating of households (central heating, gas, electricity), contributes to decreased demand of this kind of assortment. Also, users gradually move towards purchasing firewood at the legal wood warehouses.

Regarding the volume of logged wood, the highest amounts are those logged in private forests by the forest owner, not priorly approved by the competent professional services. By definition, these loggings constitute illegal loggings essential although they can not be qualified as a forest theft or labeled under any other criminal activity. These loggings are contrary to legislation relating to the Law on Forests, but not contrary to other (criminal) laws. Therefore sanctioning of such illegal activities is very controversial and rarely do the judicial bodies sanction the forest owners. However, such loggings are often executed incompetently, often due to insufficient knowledge of the forest owners. In some cases, the only motive of owners is to generate income, which leads to clear cutting. Although clear cutting does not necessarily entail deforestation it decreases the overall forest quality.

In the state forests illegal loggings are present in a lesser extent and it does not constitute a threat to sustainability of forest management. In relation to the primary wood processing, the presence of illegal wood in the forests being the consequence of theft in sawmills is almost negligible. The situation is similar in relation to export and import of wood and wooden products. Larger organized groups, illegal organizations etc. dealing with such activities, are normally not registered. The reason for this is absence of major economic interest, considering the profits in the forestry sector minor, even if realized by illegal activities.

Overall, illegal logging in Serbia is not particularly significant problem in relation to the general situation in society. For this reason, the competent institutions of society do not pay enough attention to solve this problem. Illegal logging is very important from the points of forestry and environmental protection and practically the main activities in suppression thereof are still under competence of forestry sector.

4.1. Volume of Illegal Logging

4.1.1. Illegal loggings in state owned forests

Based on the data processed by users of forests in state ownership and information on measures taken by the National Forestry Inspections on detection and prevention of illegal loggings, the following overview is made.

Table 19: Overview of illegal loggings for the period 2002-2009 year

Year	Illegally logged volume of wood m ³	Number of submitted applications	Number of solved applications	Percentage of solved applications
2002	10,037	1,614	411	25,5
2003	10,349	162	243	15,0
2004	9,136	1,151	310	26,9
2005	8,213	1,489	322	21,6
2006	7,362	1,272	231	18,2
2007	10,671	1,089	198	18,2
2008	13,713	1,345	177	13,2
I-VII 2009	3,182	572	167	29,2
Total	72,663	8,694	2,059	23,7
Average per year	9,926	1,160	270	

Source: Reports of forests holdings

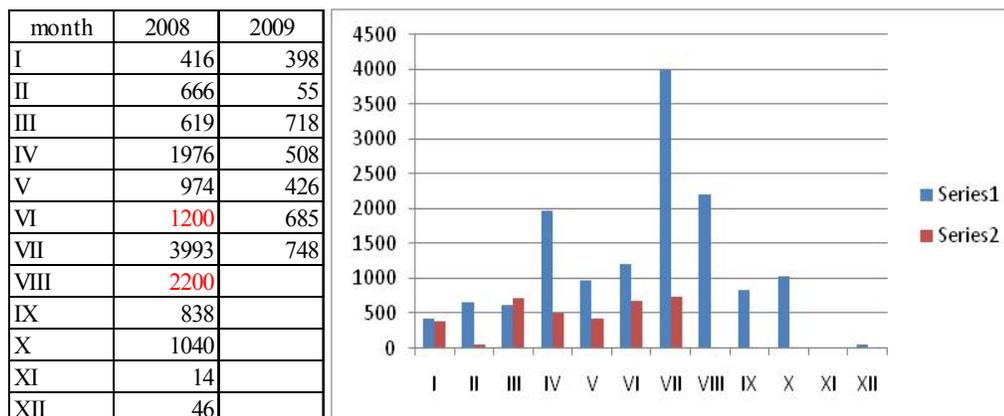
The above data shows that from 2002 to 2008 the extent of illegal loggings in state forests recorded less oscillation and the annual average is about 10.000m³, which is below 1% in comparison to total volume of logging in state forests. The total volume of illegal loggings in state forests is not a concern, however. The real cause of concern, however, is that only about 20% of complaints are solved and the perpetrators sanctioned. The most common reasons for this are deficiencies of evidence, incomplete applications, and leniency of the courts.

In the table overview, the given scope of illegal loggings in state forest areas are not related to the administrative boundary line with the Autonomous Province of Kosovo and Metohija, which is under the jurisdiction of military and police authorities. Companies for forest management as well as Ministry of Agriculture, Forestry and Water Management are not able to managing forests in this area. In this area management activities are performed by PE "Srbijašume", Belgrade, through its forest holdings: Vranje, Leskovac and Kursumlija. Based on estimates of illegal loggings, which was performed by this public enterprise, it is noted that the total amount of illegal loggings in this area amounting over 200,000 m³ for the period 2002-2008 year. Public Enterprise for Forest Management "Srbijašume", Belgrade, regularly informed the competent organs of the state administration on this issue: Ministry of Interior Affairs, army, local authorities and asked for assistance representatives of KFOR and UNMIK in order to solve the problem.

The overview shows illegal loggings which are the result of forest theft, while the tree loggings executed without remittances and other appropriate documentation are recorded as an extraordinary yield and there are no accurate data on its extent.

If the amount of illegally logged wood is recorded on a monthly basis, it can be concluded that is the highest volume of registered loggings in PE Srbijašume recorded in July and August, which is the period of wood preparation for heating season. This data refers to the fact that forest theft is mainly for the reason of obtaining firewood.

Table 20: Quantity of illegally logged wood in PE Srbijašume for the period 2008 and 2009 (until the July 09)



4.2. Most relevant types of Illegal Logging in Serbia

4.2.1. Wood theft from public or state forests

As stated above, in the State forests the greatest number of illegal activities is related to wood theft. The perpetrators are mainly the local population, sometimes organised in smaller groups. The theft is mainly committed in the forests located near villages and towns or in smaller estates that are surrounded by private forests. Smaller and isolated estates are harder to protect. The object of stealing is most often for own consumption, for firewood, or technical wood of different quality.

Illegal logging is the most intense in forest areas bordering to the territory of Kosovo and Metohija, where the access is difficult, such as Vranje, Kursumlija, Leskovac, Raska and Laposavic. The total registered quantity of illegal logging in this part of Serbia is more than 200.000 m³ for period of 2002-2008 year.

Public enterprises have long tradition in forest management, significant personnel and technical potentials that provide high degree of protection against illegal logging and other activities. Companies are organized in three levels, but by the territory they are organized in 5 levels (company, management, forest administration, compound and area). The lowest level is practically covered by forest technicians that besides forests growing and protection perform forest security. There are 624 forest security guards currently employed in Serbia. By such organization, good control and security of State forest is ensured. Forest security guards, by hierarchy, through engineers and managers achieve the communication with the local police and if needed with prosecutor's office.

4.2.2. Wood theft and illegal logging from private forests

Private forests represent more complex problem. Private owners are not organized, the average area of forest estate plot is very small and owners mainly live in towns, so there is no organized security service for private forests. On the other side, it is very often that the owners themselves unlegitimately log and harvest their forests, in order to obtain the income necessary for living.

Cutting in private forests without authorization of professional services

System for private forest management organized in a way that there is a service for managing these forests, financed by the State budget, and whose main activity is marking the trees for

logging, by the requirement of the forest owners, issuing the documents for trafficking and giving some skilled help to owners. This service annually marks about 800,000 m³, mainly firewood, for logging. This is also the officially registered quantity of harvested wood in private forests. However, the estimation is that the logging in private forests is much greater, even more than twice, or closer to 2 million m³ of wood. Legally logged wood in private forests is mainly used for further sale, mainly to population in urban areas. Illegally logged wood, in the sense that it has not been logged with the adequate skilled preparation is mainly used by rural population as firewood. This wood is being transported on short destinations, from forest to village, in tractors, where the trafficking control is lacking. These loggings are often unsustainable and there are also cases of clear cutting, aggravating the overall status of the private forests. .

Wood theft from private forests

The second problem of private forests is wood theft. Security service for private forests does not exist. Practically, the owners themselves are obliged to secure their forests, and in the case of theft the police are competent. Theft is mainly committed by the local population or by organized groups. It is committed in the forests whose owners moved to urban areas, having little physical presence in their forests. These forest owners are not always aware of illegal activities on their property. The appearance of organized groups has been noticed. Many legally registered wood stores buy wood on the stump from forest owners, without providing correct information about the price and quantity, and then mainly harvest through clear logging on the place. Owners do not tend to check the logging afterwards. The incentive for accepting such offers is high as there is no adequate protective mechanisms and controls for private forests owners. The police rarely intervenes adequately in case of thefts, forest inspectors are not competent, and a security service for private forests is non-existent. The exact data for the quantity of illegal logging in private forests does not exist, since the majority of the owners did not report or know about the theft. It is hard to give any estimate, but is evident that there is a slightly increasing trend of these thefts.

Fraud of private forests owners from entrepreneurs

A large number of forest owners live outside the forest area and are not able to organize work on forest cutting. In these cases, owners are looking for the appropriate company or individuals that will carry out their tasks regarding the use and purchase of wood products. There is often fraud involved in these jobs. Owners do not have enough information about the quality and quantity of wood that is in their forests, and they are often defrauded in calculation of quantity and value of cut wood. Very often more wood is cut than was agreed with the owner. In these cases the owners themselves have problem with the law. Because if cutting exceeds the allowed amount, approved by the professional services, or if clear cutting is carried out, the Law on Forests recognizes only the forest owner as the person responsible for the execution of unauthorized cutting of forests. In such cases, even when theft is detected, the police rarely intervene. Forestry inspectors do not have the obligation to provide support for private forests, but only to control the implementation of activities in the forest.

4.3. Forest illegal activities by FAO and UNECE classification

Illegal occupation of forestlands

- Invasion of public forested lands by rural families, communities or private corporations to convert them to agriculture or cattle ranching

Illegal occupation of forests and forest land is present in Serbia. This phenomenon was significantly expressed during the 1950's and 1960's among the rural population. Today, still some forest lands remain occupied. Part of the seizure has been solved by the court in favor of the state, as owner of the land, but the land still has not been returned to the state,

because there are no mechanisms for forced removal. Some other cases are also the subject of court proceedings pending.

The current scope of seizure is not extensive and mainly relates to the illegal construction of residential or agricultural buildings. When process of privatization/denationalization starts (denationalization have not been done in Serbia), claims can be expected regarding privatization of state forests on the basis of false or unvalid documents or documents, causing additional problems. According to the records of PE "Srbijašume", around 2500 ha of forests and forest lands are registered as captured - a plot of land for which ownership relations are not totally regulated.

- Practice of slash-and-burn agriculture on invaded lands

In Serbia, are no official records on burning of forests in order to expand agricultural land, as was the case in the distant past. However, the practice of burning of agricultural land after the harvest, constituting the most common cause of forest fires, is widespread. Despite the permanent measures taken by competent institutions, this type of "agricultural measures" still apply.

There are also suspicions that some private owners caused fires in their forests, in order to, based on that, obtain approval for clear cutting. But these suspicions have not been supported by necessary evidence. Setting fire to change the purpose of forest land is not registered, because the regulations do not allow change of use in case of fire.

- Landless peasants illegally occupying forested areas to force governments to grant land ownership rights to them and these governments buying lands from peasants.

Such phenomena has not been recorded. In practice, it is not registered that government buys land from the peasants.

Illegal logging

- Logging protected species

There is a complete ban on cutting for only a few types of trees, namely Turkish Hazel (*Corylus colurna*) and Serbian spruce (*Picea omorica*). Only individual cases of illegal logging have been noted, particularly regarding Turkish Hazel and only as individual trees, whose wood is highly valued in the wood industry. Trees of Serbian spruce are generally not illegally cut for reasons that they are in inaccessible areas.

- Duplication of felling licenses

This phenomenon is present in the private forests in which forest owners themselves, by using the received license cut quantities greater than allowed. This phenomenon is very common because it is hard to implement the complete control, especially if there are less quantities of cut wood above the allowed volume.

- Girdling or ring-barking, to kill trees so that they can be legally logged

This phenomenon has practically disappeared in the forests of Serbia. In earlier periods this phenomenon was present, but not for getting cutting permit, but because the bark of certain species of trees was used for specific purposes.

- Contracting with local entrepreneurs to buy logs from protected areas

The appearance of contracting with the private Contractors is very present, but not because of the logging in protected areas, but for cutting in general (which has already been explained in the previous section).

- Logging in protected areas

This phenomenon is not registered as an intentional practice in forest management. Protected forest areas in Serbia are mostly located in state forests and are managed by the state companies that respect the legal obligation regarding the provided protection regime.

However, the observed cases of logging in protected areas are due to the investment performances of works on the construction of ski resorts. This is observed in the area of Stara planina and Golija, but competent services reacted and submitted application for perpetrators to competent courts.

- Logging outside concession boundaries

This phenomenon is not present because there is no system of concessionary rights. However, it occurs frequently that a company or private entity, as a result of border ignorance or by intention, cut neighboring forests. Regarding the public companies, it can be said that these cases are not intentional, because the companies, by court decision, usually pays a high fee for the damage done. However, when it comes to private owners, this is common practice with the aim to steal wood in public forests. If they are caught, perpetrators usually justify their acting by claiming that they don't know the clear boundaries between plots. However, such violations are often not detected, especially if it concerns a smaller quantity. In some cases management services for private forests have been involved in these illegal activities, by providing false documentation stating that the wood comes from private plots, with a view to legalize illegally logged trees.

- Logging in prohibited areas such as steep slopes, riverbanks and water catchments
These phenomena are present.

- Removing under-/over-sized trees from public forests

This phenomenon is not recorded, mainly because the law does not define any limit on thickness below and above which trees can be cut.

- Extracting more timber than authorized

This phenomenon has been registered by the cutting contractor both in private and in public forests. It is particularly expressed in private forests, in which the contractors, regardless the allowed quantity, executing the forest logging, with or without the consent of the owners. In the state forests this phenomenon is more rare because after cutting, monitor and control of cut wood is required.

- Reporting high volume extracted in forest concessions to mask the fact that part of the volume declared is extracted from non-authorized boundaries

This activity is certainly present, but is considered a major problem. It is recorded in the state forests that quantity of more cut wood on one location is registered as it was cut on the other location. Such activities are controlled by the forest inspection

- Logging without authorization

This phenomenon is very rare in the state forests, but is significantly present in the private forests, as it was already explained in previous chapters.

- Obtaining logging concessions through bribes.

Phenomenon is present in the state forests, but there are no exact data on the extent of cutting. In the public enterprises, about 3-5 employees on average per year, for which is proven to have participated in these activities are dropped.

- Setting woodlands on fire to convert them to commercial uses.

This phenomenon have not been noticed, since the Law does not foresee the possibility of use changes due to fire, but explicitly requires the owner to carry out afforestation in the shortest possible time.

Illegal timber transport, trade and timber smuggling

- Transporting logs without authorization

Transport of timber without the documentation prescribed by the law is present. This is especially the case in the short distance transport in the rural areas. Regarding firewood, it is about the supply of the rural population, while with respect to chucks, it is usually about the small rural sawmills. Wood that is transported to the further distance, and passes out to the public roads, generally has the documentation to confirm the origin of wood. The scope of this illegal activity is reduced in recent years, since the control of timber traffic, in addition to forest inspection, is carried out by market inspection and traffic police. There are some cases of falsification of documentation about the origin of wood, although not a remarkable phenomenon.

- **Smuggling timber**

Smuggling of timber is not usually present in terms of import or export of wood without the required documentation.

- **Exporting and importing tree species banned under international law, such as CITES**
Import and export of wood species and wood products, which are contrary to the CITES Convention, and are on the list of protected species, have not been recorded. This kind of illegal trade is present with flora that does not include species that are used in forestry.

Transfer pricing and other illegal accounting practices

- **Declaring lower values and volumes exported**

Import and export of timber and lumber is free. There are no quotas and restrictions so that the reasons for false declaration of goods do not exist. According to the Law on Customs Tariff ("Official Gazette of RS", No. 62/2005, 61/2007 and 5 / 2009) the customs for firewood does not exist, while for the chucks for primary processing of wood is only 1%. Low tariff rates are the result of the process of adjusting the tax rate to the EU and the WTO so that they do not represent a generator of illegal procedures.

- **Declaring purchase prices higher than the prevailing market prices as equipment or services from related companies**

No data existing for this phenomenon.

- **Manipulating debt cash flows to transfer money to a subsidiary or parent company, such as inflating debt repayment to avoid taxes on profits**

This phenomenon in forestry is not registered because the state is owner of all companies for forest management, so that reasons in terms of profit do not exist. The situation in the wood processing industry is the same as in all other economic sectors, but there is no exact data on this phenomenon, although the phenomenon is certainly present.

- **Under-grading, under-valuing, under-measuring and misclassification of species exported or for the local market.**

This phenomenon is present within the local market. It is particularly regarding the activity of recording chucks of lower quality class, in corruption conjunction of customers and persons who are responsible for declaration of produced timber in state forests. This phenomenon was especially expressed during the 1990's, although it occurs still today. There is no data and estimations on quantities and extent of damage.

Declaration of goods with another kind of wood is present in certain cases, when it is about a highly valuable timber species, such as fruit trees or species for which cutting is prohibited by the law.

Illegal forest processing

- **Operating without a processing licence**

In Serbia, there is no system of issuing licenses for contractors for the cutting. Also, in the state forests, works are carried out precusivelyly by the enterprises which are legally

registered to carry out these activities. In the private forests often can be found contractors who are not registered for these jobs, but in this forests it is considered as normal practice. Practically, private forest owners have the privilege to decide alone who will carry out their work of cutting. Very often, owners organise themselves in working groups from people of the surrounding villages and do it as common work

- Ignoring environmental and social and labour laws and regulations

In small private contractors there are practices of engaging employees who are not regularly registered for work, and who receive their salaries without paid social and other wages. However, this phenomenon is practice is less common due to stricter penalties and more regular inspection control. It occurs that the workers are paid legally, but that the size of their payment is incorrect (only reporting minimum wages), which is often the case in the private sector.

- Using illegally obtained wood in industrial processing

Large, serious companies that process the wood, increasingly assert power on smaller companies to use only legally purchased raw materials with adequate documentation. However, small rural plants in their business operations use a certain amount of wood without the origin, primarily due to favorable prices. Illegal wood for the processing of wood usually comes from private forests. However, the practice of wood declaration of a lower class than the reality still existing, but on the lower level then before. There are doubts that the biggest wood processing companies have the influence in this.

4.4. Internal wood trade

Competent authorities have estimated that the most efficient way to prevent illegal logging is to disable the trafficking and sale of illegally harvested wood. The special attention is paid to the wood trafficking control. Based on the Law on Forests, the wood should not be moved from the place of harvest until it is accompanied with the relevant documentation and marked with forest stamp. This concerns all forests regardless of ownership consideration. The costs for wood marking and issuing the documents in State forests are borne by state companies who are managing with the forests.. In private forests the costs are borne by the State budget, and the job is performed by the service for private forests management. This procedure aims at preventing trafficking of wood without proper documentation. Where wood is in traffic without proper documentation, it is treated as illegal and is subject to legal sanctions, including frequent confiscation. The control is done by the forest security service, forest inspection, trade inspection and the police. Controls are carried out regularly, but are especially intensive in fall, when the trafficking of firewood is the greatest. The whole system starts from the assumption that if the illegal harvested wood is impossible to sell, there is no motive for illegal logging. These controls mainly prevent the illegal wood transportation on longer distances and farther markets with lower degree of forestation, where is greater demand so as the price of wood. The transportation by rural roads is not forbidden, so it is easier to transport illegal wood on local roads. The appearance of forged documentations for transportation has also been noticed or that the documentation has been provided by bribing the competent forest official.

4.5. Export and imports of Illegal Timber

Most of the trade of illegally harvested wood takes place on the domestic market of Serbia. This especially concerns firewood, and in smaller quantities the technical wood (sawnwood logs).

The presence of illegally harvested wood in the export is insignificant, due to the fact that the firewood is being exported in very small quantities, whereas the log export is under control of

inspection service in the public companies and under the custom services. Part of illegally harvested technical wood is exported as sawn wood. It is estimated that the participation of sawn wood produced from the illegally harvested wood is less than 1%.

Considering modest raw material potentials of softwood and oak wood in its forest fond, Serbia imports significant quantities of logs and sawn wood of these species. More than 95% is imported from Bosnia and Herzegovina. This import is mainly the result of inefficient and lacking legal and customs regulatory framework in Bosnia and Herzegovina, but also technical problems and weak equipment on some boarder crossings. Illegal trade of the mentioned products is present mainly through greater quantity of imported wood than is declared in the documentation accompanying the goods. The additional problem is unrealistically low unit price and decreased total value of such goods, and the estimate is that the value of the imported wood is less than 5%.

4.6. Intentionally starting of forest fires

The appearance of deliberate provocation of forest fires with aim to ensure the right of forest logging is not officially recognised, but it is assumed that it is present in private forests. Namely, private owners do not have right to execute clear loggings in their forests. For this kind of loggings is necessary special approval by the expert's commission from the companies which perform professional duties, and usually is very difficult to obtain such approval. However, if forests are damaged by fire, clear logging is a necessary measure for the sanitation and rehabilitation and approval is obtained on professionally justified grounds. Considering this, professional services on several occasions noted the phenomenon that fires occur in areas where clear loggings are not allowed, and that after that forest owners submit requests for clear logging. In the procedures of determination of the fire causes, any such case have not been proved, however, suspicion that this may be one of the causes of the forest fires outbreaks is always present.

For instance, in 2007 about 400 forest fires was registered, with area of 10.600 ha affected by fire, of which are 1.500 ha affected by high fires. Number of fires in 2008 was much smaller, 35 forest fires with area of 400 ha²⁰ affected by fire.

4.7. Unlicensed harvest of mushrooms, medicinal herbs and forest fruits

Mushrooms, forest fruits and herbs are important products from the social aspect. This area, although relatively significant for forestry and rural population has not been sufficiently explored, so there are no valid data based on which the analysis on the extent of illegal harvesting and collecting of wild fruits would be carried out. Based on studies on the valuation of forests in Srbiji²¹, the total annual value of crops, plants and mushrooms is only 6 million euros. This value is obtained by statistical analysis based on surveys and includes the collection for the market and their own needs. This value has been obtained in statistic analysis on the basis of surveys, and it includes collection intended for market and own needs. Observing this area, on the basis of legal regulations²², collection of non-wood forest products may be done only with previously obtained consent.

As for commercial activity in the sense of organization of purchase and collection of products by companies which are registered for such activities, it is necessary to obtain consent from the Institute for Nature Protection, with regard to quantity and species which may be collected

²⁰ Reports from companies for forest management

²¹ GCP/FRY/003/fin, Study on valorization and financing of forests in Serbia, Post-Study of forest valorization

²² Law on Nature protection and Law on Forests

in certain area. Company which performs such activities is obligated to pay charge for the collected quantities to the state. Competence over the implementation of law, i.e. inspection supervision is on MESP, which controls whether collected quantities of certain products exceed already established quotas²³. In case that it is estimated that collected quantities (in certain area) exceed the allowed quota, order is issued to ban further collection in order to protect populations.

In case of individuals, collection may be limited on the basis of the Law on Forests. However, there are no such limits established in practice for individuals with respect to collected quantities. Restriction of control over collection and tax charging for individual entities is applied only in the national park areas and other protected natural values.

Also, collection of medical herbs and other forest products which are under permanent protection²⁴ is seen as a problem because of population endangerment. Due to the ban, these products have a high market price so that they are continually checked by the inspection. Similar case also pertains to harvesting with illicit tools which cause permanent damage to the plants.

4.8. Impact on Government Finances

The illegal cutting has both direct and indirect adverse impact on the state budget. Direct influence means the lack of funds that flow in the budget as a fee for harvested trees. In fact, according to the Law on Forests (Article 54), 3% of the value of cut wood, calculated on the value of wood on the forest road is paid to the special account of the state budget. These funds are used to finance the improvement of the forest. Indirectly, there are negative effects on the state budget through reduced revenues, e.g. fees and taxes especially VAT, because the trees which are illegally cut are not registered in the traffic.

According to the World Bank study²⁵, estimated amount of illegally cut wood in the public forests is between 10,000 and 32,000 m³ per year. There are no confirmed estimations on the amount of illegally cut wood in a private forests, but it is estimated that the total amount of cut wood in private forests reach a figure of about one million cubic meters. According to the WB study, minimal assessment of illegally logged wood area in private forests amounts to some 500.000m³. According to that, assessment of lost income (3% for the improvement of forest) of the state is volume of illegally logged wood multiplied by 0.03 times of the average reference price of the wood on the truck way.

Table 21: Calculation of approximate direct financial losses due to illegal logging

Illegal logging (m ³)	Average market price (€/m ³)	Total loss (€)	Compensation for logged tree (%)	Total loss of benefits (wage) (€)
500.000	30	15.000.000	3	450.000

The aforementioned data have been taken from the WB study. If applied financial indicators are put into relation with assessed area of harvested wood of 4-5 million m³ (Chapter 1.5 “The level of forest use”) and the fact that registered harvesting area (for which taxes are paid

²³ Quotas which are allowed for collection at annual level are determined by the Institute for Nature Protection of Serbia. Ordinance on control of use and trade with wild flora and fauna (Official Gazette of RS, no. 31/2005)

²⁴ Such as: *Gentiana lutea*, *Orchis purpurea*, *Herminium monordys*, *Tulipa hungarica*, *Scopolia carniolica* etc.

²⁵ INDUFOR, Helsinki (2009), “Ensuring sustainability in forestry through improved management and control of illegal logging in transitional countries – Study for Serbia”

to the RS budget per cut-down tree) amounts to 3.2 mil m³, we may obtain the result that only for the amount of unpaid taxes per cut-down tree, state budget is annually damaged by 810,000 to 1.7 million Euro.

Calculations do not include the loss of 8% VAT²⁶ if the tree went to the market.

4.9. Threats to the Environment

Serbia is a country rich in biodiversity, large number of plant and animal species, inter - species variability, as well as the extraordinary beauty of regions. The concept of sustainable forest management must fully apply the principles of protection of nature and environment. Illegal activities in forestry may have significant consequences to biodiversity and environment in general. Uncontrolled harvesting, particularly clear harvesting at more spacious areas, habitats of many plant and animal species are destroyed, land is degraded and conditions are created for erosion processes. Throughout history, many consequences have been noted in Serbia, which resulted from forest cut-down and deforestation, especially during 18 Century. Environmental threats may be defined as:

- Decrease of life quality among population, due to disturbance of generally useful forest functions;
- Disturbance of plant and animal habitats;
- Biodiversity degradation in forests and surrounding ecosystems;
- Land degradation and erosion and as their consequence, drying up of springs, floods, landslides etc.
- Other threats on the positive impact of forests towards the environment.

²⁶ Law on VAT ("Official Gazette of RS", no. 84/2004, 86/2004 - corr., 61/2005 and 61/2007)

5. STAKEHOLDERS LIST

During the last decade in Serbia the structure of the main user groups of natural resources is changed, or at least the way of resource utilization. There is a broad circle of participants who have an interest in the forest sector, and who are more or less related to the state of forests and the forest sector. The numerous stakeholders include:

- forest owners and beneficiaries (private forest owners, state enterprises for forest management, National Parks, etc.),
- producers and processors of forest products (wood industry and pulp and paper industry, small enterprises and handicraft workshops, enterprises for forestry operations, producers of healthy and safe food, farmers, etc.),
- users of health and recreation forest functions, tourist organizations,
- local communities and the population, especially in rural districts,
- users of hunting and fishing areas,
- governmental and non-governmental organizations, as well as individuals.

The table below shows the main Serbian stakeholders and their focal interest. In the process of implementation of policies and action plans for prevention of illegal activities, their role can be very significant. For this purpose it is necessary to ensure full participation of these institutions in the process of informing, creating of policy and its implementation.

Table 22: Main stakeholders in forestry, their functions and focal interests

Stakeholders	Functions	Focal Interests
A. Ministries		
Ministry for Agriculture, forestry and water management (MAFWM)	Normative and regulatory functions of forest administration	Sustainable management of all forest resources
Ministry of Finance (MoF)	Facilitate the restructure of public enterprises	Restructuring of SE "Srbijašume" and National Parks
Ministry of Environmental Protection and Spatial Planning	Environmental Protection and Spatial Planning	Nature protection and land use planning for forestations
B. Enterprises		
SE "Srbijašume" (SS), State enterprises	Operational management and control of forest and natural resources	Improve market position and relation to the government officials
National Parks (NP), Public enterprises	Management of national parks	Development of the management and financial situation of national parks
Forest owners, Private	Use of forests own purpose - timber and fuel wood production	Income generation and sustainable management of own forestry
Wood-processing industry (WP)	Improvement of production and efficiency	Improved management and technology. Increase margins
C. Professional organizations		
Associations of forest engineers, hunters, forest industries, etc. – (P)	Promotion of the interest of their members	Promote interest of members
Chamber of Commerce (CC)	Preconditions for forest related enterprises	Promotion of wood-processing industry. Restructuring of forest state enterprises. Privatization of its non-core activities.
D. Education		
Faculty of forestry of Belgrade University and	Training of Trainers. International connections	Curriculum development. Restructuring.

forest related institutes (FoF)	and partnerships.	
Vocational schools (VS)	New labor education. Updating of skill of work force.	Curriculum development
D. Others		
Local communities (LC)	Improvement of sustainable development in rural communities	Employment. Local income generation
Local people (LP)	Maintain forestry functions. Possibility to use non-wood forest products, fuel-wood and recreation,	Employment opportunities
NGOs	Promote some basic ideas on development in forestry	Sustainable use of natural resources

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List of consulted persons

1. **Srbijašume,**
 Šikanja Ranko, Executive Director for Forestry
 Ilčić Branislav, Executive Director for Forest Utilization
 Aleksić Predrag, Deputy Executive Director
 Cvetković Zvonimir, Director of Forest Management Unit in Vranje
 Stanković Daniela, Head of the Division
2. **Vojvodinašume**
 Zoran Tomović, Executive Director
 Cvetković Djordje, Head of the Division
3. **MAFWM – Directorate of Forests**
 Radosavljević Aleksandar, Assistant Director
4. **MAFWM – Inspectorate**
 Kaurin Radivoje, Head of Forest Inspection
5. **Ministry of Environment and Spatial Planning**
 Stanojević Ljiljana, Assistant Minister for Inspection Supervision
6. **Environmental Protection Agency,**
 Momčilo Zivković, Director
7. **NGO sector,**
 Risojević Milica, President of NGO “Initiative for Sustainable Forestry”
 Jeremić Vladan, Director of Regional Agency for Eastern Serbia Development “RARIS”
 Tomić Dragić, President of Association of Mashroom Collectors in Valjevo
8. **Wooden industry**
 Milić Rašo, Secretary for Forestry and Wooden Industry in Serbian Chamber of Commerce
 Vasiljević Vlada, Director of Furniture Factory “Tina” Knjaževac
9. **Science**
 Rakonjac Ljubinko, Director of the Institute for Forestry in Belgrade
 Nada Dragovic, Assistant Minister in Ministry of Science

During the preparation of this study, the above listed persons were contacted in order to collect necessary information. Obtained information was related to the areas that they cover and their information was very useful.