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REGIONAL ENVIRONMENTAL CENTER



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

Illegal logging activities in Bosnia and Herzegovina

A. FACT-FINDING STUDY

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List of acronyms

BiH	Bosnia and Herzegovina
EU	European Union
EUFOR	European Union Force
FBiH	Federation of Bosnia and Herzegovina
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council, (forest certification scheme)
GDP	Gross Domestic Product
GTZ	Gesellschaft für Technische Zusammenarbeit (German technical assistance)
KM	Konvertible Marks, BiH currency (1 KM = 0.5 €)
MAC	Mine Action Centre
MAFW	Ministry of Agriculture, Forestry and Water Resources, Republika Srpska
MAWF	Ministry of Agriculture, Water Resources and Forestry, FBiH and Cantonal level Governments
MCPFE	Ministerial conference of forest protection in Europe
MoFTER	Ministry of Foreign Trade and Economic Relations
NEAP	National Environmental Action Plan
NTFP	Non-timber Forest Products
NGO	Non-Governmental Organizations
PE	Public enterprise
REC	Regional Environmental Center
RS	Republic of Srpska
SEE	South-Eastern Europe
USAID	United States Agency for International Development
USAID CCA	Competitive Cluster Activity Project
WB	World Bank

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 Bosnia and Herzegovina.

Project background

Forestry in SEE is an important economic sector. Economic instability, conflict and the breakdown of institutional structures led to a sharp increase in illegal logging activity, particularly in countries of the former Yugoslavia. Illegal logging may involve 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, from loss of habitat and biodiversity to erosion and land degradation, desertification and climate change to social disruption and economic impacts and weakened governance structures. The project is covering Albania, Bosnia and Herzegovina, Serbia, Montenegro, FYR of Macedonia and Kosovo as defined under UNSCR 1244.

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1. INTRODUCTION

1.1. Bosnia and Herzegovina –physical and socioeconomic structure

Bosnia and Herzegovina (BiH) is situated in southeastern Europe, with its territory of 51,129 sq. km mostly covered by mountains in the central and southern regions, and plains along the north.

Elevations range from sea level to over 2,000 meters. The specific terrain and the physical location fall under a few climatic zones, contributing to a range of geologic types and richness in biodiversity.

In terms of different socio-economic aspects, politics and economical status Bosnia and Herzegovina is defined by the war activities which ceased in 1996. During the December of 1995 the Dayton Peace Agreement was signed, which was a basis for a development of a democratic government and three administrative districts: two entities the Federation of Bosnia and Herzegovina (FBiH) – comprised of 10 cantons and Republika Srpska (RS) comprised of 62 municipalities, as well as the District of Brčko, in the northeast of the country.

The following map shows a geographical representation of BiH and its inter-entity boundaries.



"Courtesy of the University of Texas Libraries, The University of Texas at Austin." CIA 2002

In judiciary sense, Bosnia and Herzegovina has a decentralized judicial system, with several layers consisting of 14 Justice Ministries and numerous courts. The FBiH has the Constitutional Court of FBiH, the Supreme Court of FBiH, 10 cantonal courts, and municipal courts, as well as minor offense courts. The RS has the Constitutional Court of Republika Srpska, the Supreme Court of Republika Srpska, district courts, and basic courts, as well as minor offense courts. Brcko District also has its own courts.

The pre-war census figures showed approximately 4.4 million inhabitants, while recent figures estimate about 3.8 million people (only estimates, as last census was conducted in 1991).

The main natural resources include hydropower, coal, iron ore, bauxite, manganese, forests, copper, chromium, lead, zinc, cobalt, nickel, clay, gypsum, salt, etc.

As an economy in transition, Bosnia and Herzegovina (BiH) has a goal of EU membership. Gross domestic product (GDP) has also fallen since the war.

Per capita GDP in 2008 was approximately U.S. \$4,890¹ (app. 3,45 €)², with a total nominal GDP of approximately U.S. \$18.4 billion³ (app. 16.2 billion €) (according to the World Bank figures). The estimated real GDP growth rate for 2008 was 5.5%, and projected growth for 2009 is around 1.5%. BiH's top economic priorities are: acceleration of EU integration; strengthening the fiscal system; public administration reform; World Trade Organization (WTO) membership; and securing economic growth by fostering a dynamic, competitive private sector.

“Gross national income for B&H in 2008 is estimated at 25,502 millions KM (1Euro=1.95 KM⁴) and gross national disposable income is estimated at 29,108 millions KM.

In the basic activities (agriculture, fishing, mining, manufacturing industry, electricity and construction) is made 36.4% of value added and in services activities 63.6%. The highest share in GDP have value added of trade by 13.4% ,manufacturing industry by 11.4% , real estate by 8.3% and public administration by 8.9%.

The main contributors to the GDP growth of 13.5% were Trade (15.2%), Manufacturing (13.0%), Public administration (10.1%), Real estate (9.4%) and Agriculture (8.5%).”⁵

The following table (according to the bilten of the BiH Agency for statistics)⁶ shows the share of GDP contribution by entities in BiH in percentages. The GDP for Federation of Bosnia and Herzegovina has a share of approximately 63 percent, while Republic of Srpska has the share of around 34% in 2008. Brcko District in this case has around 2 percent of share in BiH GDP.

¹ World Development Indicators database, World Bank, 1 July 2009

² 1USD = 0.7052 Euro (Average conversion for year 2008 according to European Central Bank exchange reference rates (<http://www.ecb.int/home/html/index.en.html>)). Figures in euros should be taken only for approximate reference. Official figures are in US \$.

³ World Development Indicators database, World Bank, 7 October 2009

⁴ KM is convertible mark, the BiH national currency

⁵ Agency for Statistics of Bosnia and Herzegovina

⁶ National Accounts, Thematic bulletin 10, Sarajevo, 2009

Table 1: Share of entities in GDP of BiH in %

	2005 ¹⁾	2006 ¹⁾	2007 ¹⁾	2008	
BDP za BiH	100,00	100,00	100,00	100,00	<i>GDP for B&H</i>
BDP za Federaciju BiH	63,73	63,58	63,70	63,28	<i>GDP for FB&H</i>
BDP za Republiku Srpsku	33,65	33,99	33,78	34,37	<i>GDP for RS</i>
BDP za Brčko Distrikt	2,62	2,43	2,52	2,35	<i>GDP for Brcko District</i>

Source: Agency for Statistics, Thematic Bulletin 10, 2009

The trade figures according to the 2008 Central Bank statistics include \$5.1 (€ 3.6⁷) billion of exports and \$12.2 (app. € 8.6) billion in imports.

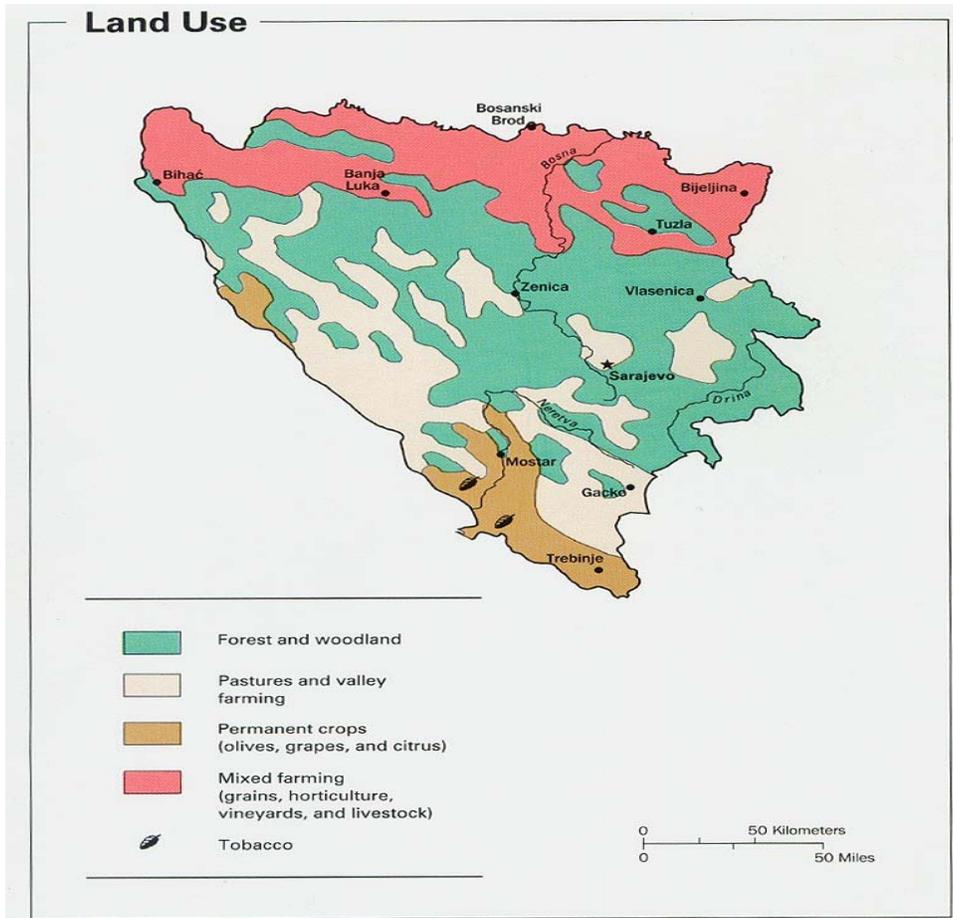
Bosnia and Herzegovina is a member of the United Nations (1992); International Monetary Fund (IMF) (1992), World Bank (1995), Organization for Security and Cooperation in Europe (OSCE) (1992); and the Council of Europe (2002). It also participates in regional cooperation through the Regional Cooperation Council (RCC), Central-European Initiative (CEI), Southeast Europe Co-operation Initiative (SECI), Southeast Europe Co-operation Process (SEECOP), and others.

1.2. Forestry overview

It is indisputable that forests have a high level of significance as natural resource in Bosnia and Herzegovina (hereinafter BiH). The forest cover represents approximately 50%⁸ of the whole area of BiH, hence making forestry one of the most important nature based resource sectors in BiH. This leads to a conclusion that the means of forest management and the way in which forest resources are used or mis-used is of a crucial importance for the country itself including a wide range of stakeholders with various interests. The following land use map shows the contribution of forestry compared to other land use categories in Bosnia and Herzegovina.

⁷ Approximate reference: average euro vs. \$ exchange rate for 2008.

⁸ NEAP 2003 p.9



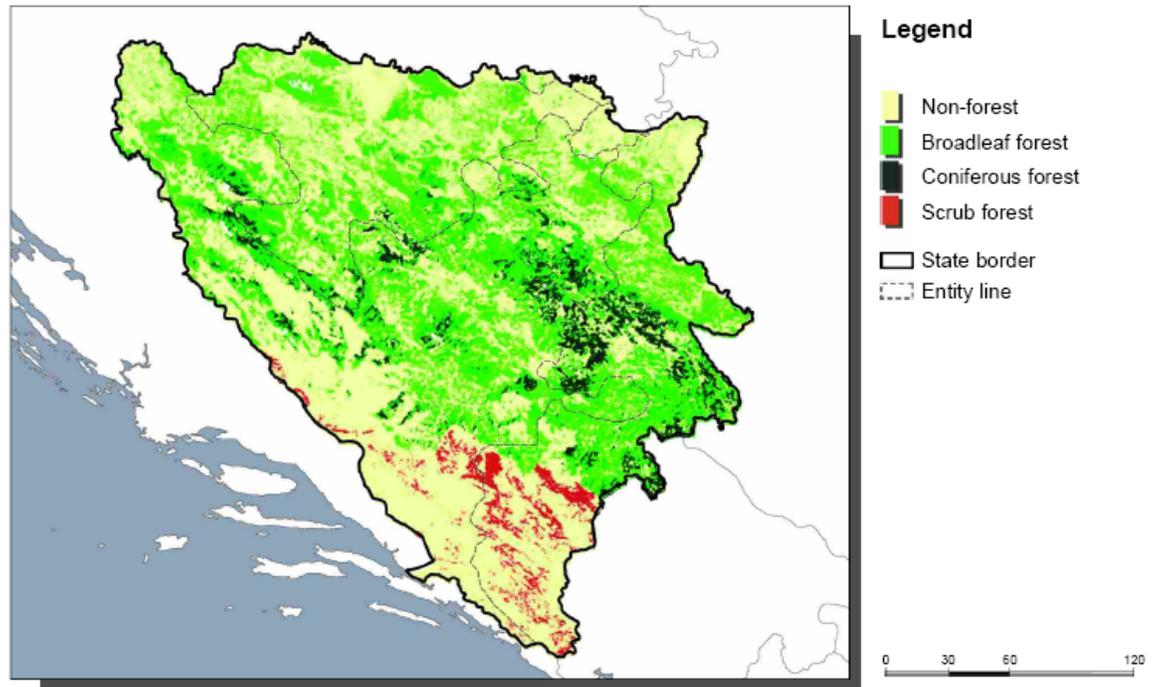
Source: "Courtesy of the University of Texas Libraries, the University of Texas at Austin." CIA 1993 Perry-Castañeda Library Map Collection

The size of forest area in BiH is 2.709.769 ha (NEAP, 2003) where the contribution of each category is visible in the table below.

Table 2. Basic information about forest resources in Bosnia and Herzegovina (NEAP, 2003)

State Forests	RS	F B&H	B&H
High forests (ha)	553.763	645.081	1.198.844
Low forests (ha)	259.034	260.403	519.437
Uncovered & barren lands (ha)	166.919	301.132	468.051
Total State forests (ha)	979.716	1.206.616	2.186.332
Private forests			
Area (ha)	229.874	293.563	523.437
Total (ha)	1.209.590	1.500.179	2.709.769

Bosnia and Herzegovina is very rich in forest resources and quite diversified in different species. As the table shows the forests and forest land cover about 2.7 million hectares of the whole country area, out of which approximately 81% is state owned, and approximately 19% in private ownership among scattered and small parcels. High forest represent 48% of total forest area, coppice makes up 34% and the rest of the total area is forestland of 14% is productive and 4% is unproductive.⁹



Source: BiH NEAP Directorate. 2003

Additionally, it is worth noting that BiH has less than one percent of its territory under environmental protected areas, e.g. national parks and other nature protected areas, which is a distressing fact concerning its biodiversity richness and natural resource potentials. The figure above shows the domination of the deciduous species (these are mostly beech (*Fagus spp.*) accounting for almost 40% of all species cover in the country and Oaks (*Quercus spp.*) contribute another 20%. It is clear that the ratio between deciduous and conifer species is around 2:1, where beech and oak combine almost 50% of the whole forest composition country wide.

⁹ BiH forestry development program 1986-2000, 1986.

Table 3: Estimated forest cover (in hectares) in Bosnia and Herzegovina (Forest and Wood Sector Review-BiH, USAID, 2006.)

Cover Type	State owned	Private	Total
Federation of BiH			
High forest	639,226	54,609	693,835
Low (sprout/coppiced) forest	258,395	151,042	409,437
Land for reforestation	164,213	61,303	225,516
Bare land, not for reforestation	74,097	0	74,097
FBiH subtotals	<i>1,135,931</i>	<i>266,954</i>	<i>1,402,885</i>
Republic of Srpska (RS)			
High forest	543,034	n.a. ¹	543,034
Low (sprout/coppiced) forest	170,811	n.a. ¹	170,811
Land for reforestation	194,505	n.a. ¹	194,505
Bare land, not for reforestation	64,770	n.a. ¹	64,770
RS subtotals	<i>973,120</i>	<i>n.a.¹</i>	<i>973,120</i>
Totals for BiH*			
High forest	1,182,260	54,609	1,236,869
Low (sprout/coppiced) forest	429,206	151,042	580,248
Land for reforestation	358,718	61,303	420,021
Bare land, not for reforestation	138,867	0	138,867
Total forest cover, nationally²			
	2,109,051	266,954	2,376,005

¹Data for private land not available from the R.S.

²Does not include forest cover area on private lands in the RS

Source: Hadziabdic, S. 2004.¹⁰

The table shows the estimated forest cover in BiH in the year 2006, showing lower estimations than in other previous similar studies. The new forest inventory (initiated by the World Bank) will give more precise data in the future.

Nevertheless, the table shows the dominance of the high forest cover type and slightly larger share of state owned forests in FBiH than in RS. It is interesting to note that there is still

¹⁰ From Forest and Wood Sector Review-BiH, USAID, 2006.

significant amount of the area which is suitable for reforestation (over 350.000ha) which could in the future create new potentials for enhancement of forest activities.

- ◆ forests constitute an important natural resource in BiH
- ◆ contribution of forestry in the land use segment is very high
- ◆ the size of forest area in BiH is around 2.7 million hectares
- ◆ approximated 81:19 ratio of state vs. private ownership
- ◆ diverse tree species and rich biodiversity
- ◆ only less than 1% of land is currently under environmental protection

1.2.1. Organizational Aspects

The BiH forestry sector has been regulated on entity level comprising of Federation of BiH (hereinafter FBiH) and Republic of Srpska (hereinafter RS), as well as Distric Brcko. The Ministry of Agriculture, Water-management and Forestry in FBiH and the Ministry of Agriculture, Forestry and Water-management in RS are responsible for forest related policies and strategies, legislation frameworks and monitoring aspects. The coordination of external and international activities, especially in the environmental segment has been the responsibility of MoFTER BiH (Ministry of Foreign Trade and Economic Relations) on the state level. Pursuant to existing Laws, the owners of the forests are FBiH, RS and District Brčko BiH.

Table 4: Organization of forest management administration in BiH

State level	Ministry of foreign trade and Economic Relations		
	RS		FBiH
Entity Level	Ministry of Agriculture, Forestry and Watermanagement of RS	Ministry of Agriculture, Water Management and Forestry	
Cantonal level		Cantonal Ministries	
Forest Management Companies	“Šume Republike Srpske” PE	10 Cantonal Forest Management Companies PEs	
	Forest Management Units	Forest Management Units	

The following table represents forest and forest land area cover for the whole Bosnia and Herzegovina according to the two entities and in accordance to the publicly managed forests.

Table 5. Forest and forest land area cover; Source EFNS 38, Sarajevo 2006.

Forest type	Area in hectares		
	FBiH	RS	Total
High forests with natural regeneration	523832,1	459090,0	982922,1
High degraded forests	13434,5	23225,0	36659,5
Forest cultures	67717,5	60833,0	128550,5
Coppice forests	253297,0	174119,0	427416,0
Areas suitable for afforestation	186141,1	207719,0	393860,1

Areas not suitable for afforestation and management	116840,7	55739,0	172579,7
Total nondisputable forest land	1161244,9	980725,	2141969,9
Mined areas/acquisition disputes	118659,0	17211,0	135870,0
Total	1279903,8	997936,0	2277839,8

District Brcko, as a third administrative unit in BiH, encompasses 11 000 ha of forests under management with a larger share of private ownership. In accordance to the Constitutional provisions, the ownership of public forests is divided among the entity of Federation of BiH, entity of Republic of Srpska and District Brcko, where the forests of each unit are administratively managed via ministries responsible for forestry.

Almost 400 000 ha (FBiH: 186 141 ha and RS: 207 719 ha) in total has been assumed as being bare lands with a productive function.

Organizational aspects of the forestry sector in BiH are different in each entity. In accordance with the Law on Forests of FBiH, each out of 10 Cantons in BiH has a Cantonal Forestry Enterprise which is responsible for exploitation of forests and forestlands in state ownership. On the other hand in the entity of RS the forest management is centralized and it is a responsibility of one forest management enterprise with 42 forest management units.

- ◆ Forestry sector regulated on entity level
- ◆ Coordination of external and international activities on the state level by MoFTER
- ◆ Organization of forest management administration quite complex, especially in FBiH where it is further decentralized with several Cantonal Enterprises

1.3. Forestry and Economic Development – Wood Industry

Forestry and wood-processing industries have been foreseen as very significant segments of national economy in BiH, however the sector suffer from outdated technology. The vast areas of forests and around 50% of land cover have potential to provide almost 7 million m³ of round-wood annually. The existing tradition and experience in the wood-industry sector are high.

Beech, oak, ash, pine and fir as well as more specialized woods such as walnut, apple and cherry, are exported as raw material, half fabricates and finished products (FIPA, 2006). The wood-processing sector is a huge potential for small and medium investments in BiH.

The extensive source of hard and softwood as well as the low-cost, skilled labour force combined with manufacture facilities that have capacities for timber and furniture production that surpass domestic demand, make this sector export-oriented. Currently, apart from great potentials to export to several other countries, the largest markets for these products are Germany, Italy and countries of ex Yugoslavia.

Table 6. Current potential annual removals in state-owned forests in 1,000 m³/a (source FIPA, 2006)

Conifers	AAC	Broadleaves	AAC
Veneer logs	48	Veneer logs	95

Saw logs I	498	Peeler	95
Saw logs II	596	Saw logs I	279
Saw logs III	522	Saw logs II	496
Poles	162	Saw logs III	675
Mine wood	276	Pulp wood	1,117
Pulp wood	282	Fire wood	1,748
Total net mass	2,384	Total net mass	4,505

Table 7: Cutting and production of forest assortments in public forests; Source: Agency for statistics of BiH

10-3 SJEČA I IZRADA ŠUMSKIH SORTIMENATA U DRŽAVNIM ŠUMAMA
CUTTING AND PRODUCTION OF FOREST ASSORTMENTS IN PUBLIC FORESTS

								000 m ³
	2001	2002	2003	2004	2005	2006	2007	
UKUPNO	2.054	2.304	2.311	2.253	2.066	2.193	1.996	TOTAL
Industrijsko drvo	1.458	1.536	1.483	1.391	1.173	1.233	1.144	Industrial wood
Tehničko drvo	154	154	160	155	171	197	176	Lumber
Ogrijevno drvo	442	614	669	708	722	762	676	Firewood

- ◆ Wood industry with potential of rapid development
- ◆ Demand for expertise and improved technologies
- ◆ Export of timber and wood products increasing
- ◆ Experience and tradition in wood industry high, nevertheless capacities and expertise need improvement

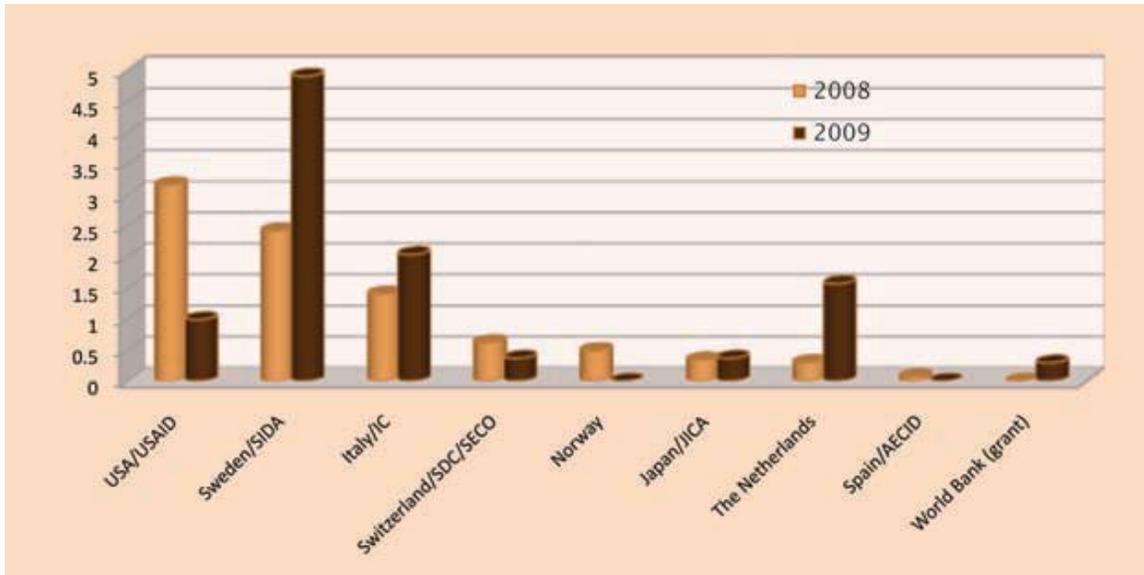
1.4. International commitments and support to the forestry sector

Several international donor organizations are active in the forestry sector with varying impacts, offering technical assistance in both forestry and the wood-processing sector. The assistance ranges from education and training, restructuring to specific technical inputs, but more specifically the assistance is directed toward forest conservation, sustainable forest management, implementation of reforms in the legislation and institutional frameworks, participatory management and biodiversity conservation. Forest certification is also embedded within the main issues treated within the projects and strategic approaches as well as building up instrumental mechanisms and human capacity building.

The following are only some of the project assistance and donors in the forestry sector which are present in BiH.

- Forestry Development Project – World Bank
- Cluster Competitiveness Activity (CCA) - USAID.
- Economic Management Structural Adjustment Credit (EMSAC) – World Bank..
- National Forest Project funded by the World Bank
- National Forest inventory
- The Fostering Interventions for Rapid Market Advancements (FIRMA) project, co-financed by Sweden/SIDA and USA/USAID
- Department for International Development Cooperation, DIDC (Finland) Supports tertiary education in forest policy and economics through the European Forestry Institute (EFI)
- European Commission Delegation Supports the Regional Development Agencies; involved in cross-sectoral education and training
- European Union Forces, EUFOR Support to BiH police including assistance to stop illegal timber removals and transport of forest and wood products
- European Union Police Mission. EUPM Support (including training) to BiH police forces especially with regard to organized crime
- Gesellschaft fur Technische Zusammenarbeit, GTZ (Germany) Supports wood processing companies
- Office of the High Representative, OHR Assistance and support to BiH governance pertaining to illegal timber trade and legislation

Figure 1. Donors Active in the Agriculture and Forestry sector 2008-2009 (Grants only) (Source: Donor Mapping Report, 2008-2009)



According to the 2008-2009 Donor Mapping Report priority areas for further enhancement include strengthening institutions and legislation, capacity building of relevant domestic institutions, increased focus on environmental protection, diversification measures, improving commercialization and market access and certification, as well as many other aspects which according to the countries potentials and wealth of natural resources anticipates further investments in the forestry sector.

The report indicates that an adoption of an integrated approach stays emphasized as past two years have witnessed quite a few constructive developments in the Agriculture and Forestry sectors. The Agriculture and Forestry sectors account for particularly high percentages of employment in BiH and financial support within the EU and as such, these sectors are certain to remain a major focus of donor support as the EU accession process continues (Donor Mapping Report BiH, 2008-2009).

- ◆ International donor organizations are active in the sector
- ◆ Education, training, technical support, forest conservation
- ◆ Instrumental mechanisms and human capacity building
- ◆ Funds available from World Bank, USAID, GTZ, EUPM, OHR etc.
- ◆ Forestry sector– constitutes a high percentage of employment in BiH
- ◆ Further investments in the forestry sector needed

1.5. Corruption Perception Index (CPI) of Transparency International (TI)

The Corruption Perceptions Index (CPI) measures the perceived level of public-sector corruption in 180 countries and territories around the world.

According to the Corruption Perception Index (CPI) Report in 2008 from the Transparency International, the CPI Score for Bosnia and Herzegovina has a 3.2 index¹¹. It was placed on the 93rd place; among 180 countries covered in the index. However, in 2009 the CPI index dropped to index 3¹², translating to place 99. This is negative development since the latest data showed that the country had a significant fall on the CPI scale.

1.6. Main drivers of illegal logging

The possible causes of illegal logging in BiH include poverty driven acts in order to fulfill basic subsistence needs because of the low living standard or simply for commercial purposes to provide additional profit or cash income. There is a big demand of high quality timber and it is still possible to sell this stolen timber.

BiH is a country where its forests' are managed by the two entities (Federation and Republic of Srpska), further along the line the Federation entity has decentralized its forest management responsibilities to each of its ten Cantons which makes the situation, in terms of illegal logging, even more complex. The looters take advantage of this situation especially in areas of borderlines where it is difficult to say which authorities bear the responsibility. Low accountability,

¹¹ The Index ranks countries from those with the lowest level of corruption to those where the corruption is most present, on the basis of marks for each individual country (ranging from 10 – no corruption, to 1 – absolute corruption), drawing from relevant research the Index is consisted of (Transparency International, 2008.).

¹² http://www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table

discretionary powers as well as high scarcity rent in combination greatly contribute to the driving forces of illegal logging, hence making room for and tendency toward accepting bribes and illegalities.

In essence the background of the process of the illegal logging could be described through a principal-agent theory where two groups of actors could be identified. The “principal” in this case considers the customer (client) which expects from the “agent” (civil servant) to fulfill a certain task on behalf of him. The relationship between these two groups can be regarded as a course of action in which both sides try to pursue their own interests; the principal expects that his orders are fulfilled while the agent expects to obtain compensation (bribe) for providing his services, or not performing services that he is legally obligated to do.

The bottom line is that in this process several actors can benefit and gain advantage from it while the others endure considerable loss.

2. DEFINITIONS OF ILLEGAL LOGGING

There are many complex focuses on the definition of illegalities in forestry, as unlawful practices in the forestry sector take account of a wide variety of activities including a broad range of actors. According to Contreras-Hermosilla (1997) unlawful practices in forest and forest industry sector could be grouped into five categories consisting of illegal occupation of forest lands, illegal logging, illegal timber transport, trade and timber smuggling, transfer pricing and other illegal accounting practices as well as illegal processing.

As the aim of the study focuses on illegal logging as one of the important illegalities in the forestry sector, it is important to attempt to find its definition. Since the definitions of illegal logging vary from country to country, through the timeline and according to several authors (Callister, 1999; Contreras-Hermosilla, 2002; Ahas, 1998; Morozov, 2000; WWF’ Forest Conservation Portal; Transparency Moldova; Global Forest Watch, etc.), it is obviously still complex to find its single clarification.

Illegal logging is a term that most frequently describes forestry practices connected with wood harvesting, processing and trade that do not conform to the laws. Illegalities can be present throughout the whole process from the source to the consumer. Illegal processing and export, the harvesting, the access to the forest and logging without permission as well as logging in excess of quota are just some of the many examples of illegalities.

According to the mentioned Savcor/WB study the various legal violations associated with illegal logging can be divided into eight groups:

- 1) theft,
- 2) unauthorized harvesting,
- 3) non-compliance with regulations related to timber harvesting,
- 4) non-compliance with the procedure of timber sales/concession award,
- 5) manipulation of timber data,
- 6) evasion of taxes and fees,
- 7) non-compliance with regulations concerning transport or export of timber, and
- 8) non-compliance with labor laws

According to the **FBiH Law on Forests** from the year **2002**, it is forbidden to harvest trees (within or outside forest areas), until they are properly marked (with a painted hammer), counted, measured and before a proper approval has been issued (“otpremni iskaz”). These are the official mandatory procedures of the Federal Ministry.

The marking and measurement is done by the cantonal forestry enterprises (in the state forests), while private forest harvesting is monitored by cantonal offices (“kantonalna uprava”).

Non-compliance with these requirements is subject to judicial punishment and measures of confiscation of the forest products and tools which the crime has been committed with.

These activities are in jurisdiction of forest guards, experts authorized for forest protection on behalf of the cantonal forest management company as well as police representatives and authorized forestry inspectors. They also have the right to record and identify all persons which might occur in the areas of their jurisdiction.

According to the *Article 54* of the Law on Forests the cantonal offices (through the organizational structure of the forest guard service) are responsible to protect any activities related to illegal logging and to identify potential perpetrators.

According to the *Article 72* of the FBiH law (and similar with RS Law on forests) the physical person who commits illegal logging and all relevant activities is subject to fine of 250 to 1500 Euros (500 – 3000 KM). The fine for similar activities for commercial subjects is significantly higher, between 2500 euros and 12500 euros, according to (Article 69 of the same law).

Illegal activities would nationally be defined as illegal possession of forest land, illegal harvesting, illegal transport and storage of forest and NTFP and their transport from the forest (without prescribed procedure and permits) and related processing, as well as illegal building and construction. For example the **Law on Forests in Republic of Srpska** (Article 8) defines illegal activities as harvesting without permits, harvesting on the land which is not in the individual’s legal possession, harvesting of protected species, illegal transport of harvested resources etc. This directly relates to the international definitions and related sub-activities.

National legal instruments for tackling the problem of illegal logging are adequately set up. Enforcement is also satisfactory, nevertheless the lack of human resources in detecting perpetrators and the risk of resistance and violence when faced with organized criminals has been identified. Additionally, the fines for individuals who engage in illegal activities in forestry, are not sufficiently effective and deterrent, which give large incentive for such illegal activities given that the level of fines are often lower than the profit generated.

In 2005 an **Action Plan** to Combat Illegal Activities in Forest and Wood Processing Sectors in Bosnia and Herzegovina has been developed for both entities.

The Action Plan aims to embrace all types of illegal activities in the forest sector including theft and corruption-related crime. In its scope description it identifies the latter issue as more serious in terms of “causing damage and financial losses”. Its main strategy is that “...illegal activities cannot be fully eliminated relying only on regulation; lasting results can be achieved only if the enterprises themselves demonstrate a will to pursue this goal. Another key strategy is to increase the cost of illegal activities through improved control and provide incentives for legal suppliers (e.g. by improving market access through certification).

3. ILLEGAL LOGGING

Bosnia and Herzegovina as a country in transition has been severely affected by the war activities in the period 1992-1996 which have had implications of unsteadiness at several levels including the forestry sector. Occurrence of illegalities in different forms has become a very important issue where illegal exploitation of wood has been especially emphasized during and right after the end of the war conflicts. Even though several instruments have been identified to reduce the occurrence of illegalities, the lack in institutional capacities as well as the unfavourable socio-economic conditions (e.g. high level of unemployment and low income) jeopardises their effectiveness.

The emerging issue of illegal logging in BiH has been widely recognized by the state administration and numerous stakeholders even though it is cumbersome to define its precise extent. One government initiative to come to terms with this problem include the signing of the “Petrograd Declaration” at the Ministerial Conference in Russia in 2005 where BiH obliged itself to develop and adopt an Action Plan to combat illegal activities in forestry and wood-processing industry sector. In terms of illegal logging the Action Plan encourages conducting independent assessments on type and volume of illegal cuts, export of illegally cut timber, assessment of government’s financial losses; combining mentioned assessment with financial control.¹³

Even though these entity action plans have been developed in 2006 and significant reduction has been evidenced after the war, this aspect needs further expansion in the segments of reinforcement and control mechanisms, including the judiciary system. Implementation of existing legislation, fines and sanctions need to be reinforced and new regulatory and informational instruments need to be included (raising awareness, transparency of the timber market etc.).

The causes for illegal logging that originate in low living standard, the actors affected by these activities and potential effects on different segments are recognized within the study. The study will aim at investigating and identifying various policy instruments that have been directed at reducing illegal logging in the post war period until present as well as to highlight possible successful measures consisting of regulatory, economic and informational instruments which, if adequately applied, might have a significant impact on stemming illegal logging in BiH. The combination of strategic measures accordingly adapted to local conditions would be the best course of action, since continuous illegal logging activities highly reflect the social reality of BiH, therefore making it necessary to carefully implement a range of mechanisms in a flexible manner.

Private persons engaging in illegal logging are mostly doing it for subsistence needs (especially relating to fire wood), and particularly in the aftermath of the war, but those quantities are quite small, and have been reduced recently. On the other hand the organized illegal logging related to harvesting, transporting and processing at facilities without permits, has been another important issue, which has also recently with more effective mechanisms of control been significantly reduced.

The scope of the Action Plan to combat illegal activities (developed for both entities) identifies that the post-war period brought restoration of control systems and mechanisms to protect the forest against theft. Nevertheless it states that “the weakness of legal structures, troubled economy and low living standards gave rise to another type of illegality involving corruption of public

¹³ Action Plan FBiH (2006)

officials. In the forest sector, corruption has been associated mainly with timber sales from public forest enterprises.”¹⁴

These issues have been tackled throughout identification of several activities such as External Control (improving institutional structure for control functions in forest sector, increasing staffing in inspection services and their training, continuous collaboration with EUPM and EUFOR, strengthening and reform of the prosecution system, an independent assessment on the type and extent of illegal logging and exports of illegal timber; assess the amount of financial losses to government etc.) as well as Internal Development of State Forest Enterprises (Implementation of a reform strategy including proposals to reduce the number of Forest Management Units, recruitment and reshuffling of personnel, application of centralized competitive bidding and other market-based pricing mechanisms to timber sales to all private enterprises etc.).

3.1. Volume of Illegal Logging

Even though the degree and data on illegal activities in the forest sector has not been exactly specified, the common opinion prevailing among stakeholders is that this issue ought to have particular attention. A report by Savcor Indufor Oy (2005) states that in BiH volumes of illegally harvested timber were officially reported as between 0.3 and 2.2 percent of the legal timber supply with an estimated value of between USD 10 and 20 million. Fortunately, it has become quite difficult to keep illegal activities, mainly illegal logging, concealed due to government initiatives and for the most part rapid spread of information through several efforts of the local media and NGO’s that made several attempts to unravel the threads of this vicious cycle.

Estimated Data on Illegal Logging

<i>Country</i>	<i>Year</i>	<i>Estimated volume of illegal logging (m³)</i>	<i>Legal logging (m³)</i>	<i>Illegal logging as % of legal logging</i>
Albania	2002	28,400	304,800	9.3
Azerbaijan	1988–2005	20,600 ^a	65,000 ^a	32.0
Bosnia and Herzegovina	2003 ^b	41,159	1,850,938	2.2
Georgia	2004	60,846	640,957	9.5
Kyrgyz Republic	2002–4	2,500 ^a	33,000 ^a	7.5
Moldova	2004	3,479	422,000	0.8
Russian Federation	2004	6,500,000	88,200,000 ^c	11.0
- NW Russia	2004	2,000,000	38,000,000	6.0
- Far East	2004	4,500,000	25,500,000	18.0
Serbia and Montenegro	2004	9,136	3,250,000	0.3
Tajikistan	n.a.	1,340–2,010	6,700	20.0–30.0
Ukraine	2004	30,000	12,395,000	0.2

Source: SAVCOR Reports, Europe and Northern Asia Forest Law Enforcement and Governance Fact Sheet, 2005.

3.2. Types of Illegal Logging

The available data on illegal logging usually refer to violations which involve material removal of trees i.e. theft, unauthorized harvesting and noncompliance with harvesting regulations (Savcor,

¹⁴ Action Plan to Combat Illegal Activities in Forest and Wood Processing Sectors in Bosnia and Herzegovina, December 2005

2005). Corruption related to wood harvesting is not regarded as illegal logging unless it involves physical removal of trees.

3.3. Intentionally starting of forest fires and unlicensed harvest of mushrooms, medicinal herbs and forest fruits

NTFPs (non-timber forest products) in BiH have a great percentage of export to Germany, Italy, Switzerland, France, and Slovenia as there is a strong international demand; the yearly collection of herbs varies between 1,500 to 9,000 tons (FIPA Factsheet, 2006). The collection of NTFPs is regulated by special laws and included in the Law on Forestry. There seems to be no special problems in the collection of these products as there are certain limits and special agreements on their collection with private companies. In Federation of BiH there are individual agreements for collecting NTFPs in specified areas and the activities related to this issue is regulated and checked by the Forestry Inspection.

Mushrooms, forest fruits and herbs are important products, especially for the rural population. However, there has not been sufficient research in this area 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.

The deliberate cause of forest fires in order to ensure the right of forest logging is not officially registered, but it is assumed to occur in private forests. The main reason being that private owners do not have right to execute clear loggings in their forests without special approvals which are usually very difficult to obtain. Where forests are damaged by fire, clear logging is necessary for the sanitation and rehabilitation measures, and approval is then obtained due to the justified causes. Considering this, it has been noted on several occasions that the fires occur in areas where clear logging is not permitted and requests for clear cutting are submitted afterwards. Hence, there are strong grounds to suspect that fires are deliberately caused in these areas.

According to different studies and compiled reports from forest management companies in 2007 there were registered about 400 forest fires, 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 ha affected by fire.

Table 8 : Damage to forests; Statistical Yearbook of BiH, 2008 (Agency for Statistics of BiH)

10-9 ŠTETE U ŠUMAMA¹⁾
DAMAGE TO FORESTS

	Uzroci šteta <i>Cause of damage</i>									
	čovjek <i>Man</i>		insekti <i>Insects</i>		elementarne nepogode <i>Natural disasters</i>		biljne bolesti <i>Disease</i>		požari <i>Fires</i>	
	m ³	000 KM	m ³	000 KM	m ³	000 KM	m ³	000 KM	m ³	000 KM
2001	45.831	2.415	32.196	1.549	3.391	114	-	-	15.282	795
2002	60.742	3.116	5.726	408	1.646	54	32.825	1.833	5.674	1.785
2003	55.871	3.812	19.060	1.174	38.826	765	408	22	202.507	20.205
2004	40.580	2.329	52.224	1.961	9.078	449	-	-	5.858	1.381
2005	54.788	2.747	45.160	2.844	7.867	328	615	32	4.164	1.925
2006	39.497	2.801	56.124	3.341	-	-	-	-	14.557	2.361
2007	50.382	3.465	37.411	1.708	5.409	289	-	-	43.909	9.722

¹⁾ Nedostaju podaci za privatne šume nekih općina Hercegovačko-neretvanskog kantona

¹⁾ Without data for private forests in few municipalities for Hercegovačko - neretvanski canton

3.4. Export and Imports of Illegal Timber

Trade Flows: Estimates of legal and Illegal Exports of Wood Products of Selected ENA Countries

Country	Year	Legal exports			Illegal exports
		Roundwood	Sawnwood	Firewood or charcoal	
		(thousand m ³)			
Albania	2002	-	95	12,000 tons	
Armenia	2002	5	5		
Bosnia and Herzegovina	2003	221	927		
Bulgaria	2002	9	330	6	5–10% (WWF estimate)
Georgia	2004	-	132		30,000–35,000 m ³
Moldova	1998–2004		2 ^a		
Russian Federation	2003	45,000	10,000	n.a.	25% roundwood (40% to China) 15% sawn softwood 20% sawn hardwood
Serbia and Montenegro	2002	33	n.a.	1	< 1%
Uzbekistan	2002		3		

Notes: n.a. = not available. - = no data. a. Annual average for the period. .Source: SAVCOR reports

Source: SAVCOR Reports, Europe and Northern Asia Forest Law Enforcement and Governance Fact Sheet, 2005.

3.5. Impact on Government Finances and Threats to the Environment

Parties who encounter loss in illegal logging activities are numerous since illegal forest activities, and especially illegal logging, is a pervasive problem which leads to environmental, economic, and social effects. Primarily these activities result in the loss of revenues for the government and its proper allocation of funds which may be directed toward sustainable forest management. Public enterprises are also at loss as there is possible encouragement of illegal activities in their management areas, by their employees and their revenues are affected. They suffer in terms of loss of wood, money and having illegal competition. Losses in wood in the illegal logging activity can be seen as losses in annual cutting volume, growing stock volume, and annual increment of volume. Since logs and fuel wood has a market value, illegal logging activities directly reduce revenues of public enterprise from products removed from the forests. Price of the logs and fuel wood produced in the illegal logging activities is lower than the price of products in the free market because of avoiding tax payment. Lower prices those companies and individuals involve in the illegal logging can offer to the market once they obtain necessary documentation, makes them unfair competition on the free market. Following that, the citizens or tax payers are also disadvantaged as they indirectly benefit from taxes and social functions of forests.

Apart from above stated, illegal logging contributes to poverty through the reduction in government revenues that could in turn be made available for poverty reduction programs; foster a vicious cycle of bad governance; are a major contributor to deforestation, loss of biodiversity; increase the risk of forest fires through more intensive logging activities; and distort forest product markets. USAID produced a study on the Forest and wood sector review for BiH in 2006, and it indicates that most of the illegal logs are transported to Serbia, Montenegro and Croatia because of the higher prices for raw materials. It also gives an estimation from similar studies that “the illegal volume of removals is between 0.3 and 2.2 percent of the legal timber supply with an estimated value of USD 10 to 20 million (€ 8.3 to 16.6. million).

4. LIST OF STAKHOLDERS

List of Participants – Introductory presentation of the project and the study components, August 2009

The stakeholders in the list below participated at the initial introductory presentation of the project and the study to be carried out. The participants pointed out useful materials which could be used, provided valuable information and gave insight into their opinions and experiences related to the subject.

The **major conclusion** of the presentation workshop was that this topic needs an approach including a national working group including members from the different branches of the sector and a variety of experts. Hopefully, future components of the project might have budgetary allocation for these purposes.

	Participant	Institution/Organization
1.	Elmedin Begic	Ministry of Agriculture, Watermanagement and forestry of Canton Hercegovacko Neretvanski
2.	Esmā Kreso	World Bank
3.	Seid Ćorbic	Public Enterprise of Tuzla Canton
4.	Kahric Nijaz	Cantonal Forestry Directorate Travnik
5.	Ernad Granic	SNV BiH
6.	Samy Hermas	SNV
7.	Emsad Pruzan	
8.	Paso Hodzic	Cantonal Forestry Directorate of Canton Zenicko-Dobojski
9.	Nada Pejanovic	Cantonal Forestry Directorate of Canton Zenicko-Dobojski
10.	Nenad Buzanin	SNV
11.	Elmedina Krilasevic	FEA – Forestry and Environmental Action
12.	Aleksandar Mrkobrada	SNV
13.	Lazo Sinik	Chamber of Commerce of RS
14.	Srdjan Ljubojevic	Agency for Forests of RS
15.	Mirjana Karahasanovic	World Bank
16.	Darko Antonic	Republic inspectorate for forestry and hunting
17.	Goran Ljubojevic	Republic Directorate for inspection activities of RS
18.	Sead Ale	Association of engineers and technicians of FBiH
19.	Denis Kahriman	Cantonal Forest Directorate of Sarajevo Canton
20.	Fazlic Samir	Cantonal Forest Directorate of Sarajevo Canton
21.	Peskovic Bajram	Federal Ministry of Agriculture, Watermanagement and Forestry
22.	Midhat Ahmetovic	
23.	Sead Secic	Forest management company „Srednjo-Bosanske Sume“
24.	Asim Dugalic	Forest management company „Srednjo-Bosanske Sume“
25.	Aida Mesanovic-Japalak	Forest management company „Sarajevo Sume“

References:

1. Action plan to combat illegal activities in forestry and wood- processing industry sector in Federation of Bosnia and Herzegovina (2006)
2. Action Plan to Combat Illegal Activities in Forest and Wood Processing Sectors in Republic Srpska (2006)
3. Avdibegovic, M., (2006): The Role of Media in Fighting Against Illegal Activities in B&H Forest Sector” Case study – “Nezavisne novine”. FOPER test course Belgrade
4. Contreras, A., Global Witness,(2003): Governance and Poverty Impacts of the Illegal Timber Trade in Central America. Emerging best practices for combating illegal activities in the forest sector-report.
5. FAO (2005) Defining illegal logging: what is it and what is being done about it? Kenneth Rosenbaum <http://www.fao.org/docrep/006/Y4829E/y4829e07.htm>
6. FAO (2005): Best practices for improving law compliance in the forest sector. <http://www.fao.org/documents>
7. FAO (2001): The State of the World’s Forests 2001, FAO corporate document repository, Rome (88-99).
8. Greenpeace, WWF, FERN, (2005): Facing reality-how to halt the import of illegal timber in the EU. <http://europa.eu.int/comm/development/body/publications/>
9. Global Witness, (2002): Deforestation without limits. <http://www.globalwitness.org>
10. Ilda Zornic, (2005): Illegal Loggers Loot Bosnia’s Forests Institute for War and Peace Reporting
11. Illegal logging, Wikipedia the free encyclopedia http://en.wikipedia.org/wiki/illegal_logging
12. Izvještaj o poslovanju « Sarajevo-Šume » d.o.o. Sarajevo za period 01.01.2006. do 30.09.2006.
13. NEAP (2003): National Environmental Action Plan BiH, Sarajevo, p. 9.
14. Savcor Indufor Oy. 2005. Ensuring sustainability of forests and livelihoods through improved governance and control of illegal logging for economies in transition. Discussion paper prepared for The World Bank. 57p.http://research.yale.edu/gisf/assets/pdf/tfd/logging/ENA%20FLEG/SAVCOR_illegal_logging_ENA_June2005.pdf
15. World Bank Group (2006) : Combating Illegal Logging and Corruption in the Forestry Sector
16. World Resources Institute, (2002): Global Forest Watch.
17. www.forests.wri.org/ (visited on 17/05/2007)
18. www.dfid.gov.uk/eupresidency2005/flegt.asp (visited on 17/05/2007)
19. www.iufro.org/science/task-forces/flegt/ (visited on 17/05/2007)
20. www.Greenvisions.ba/gv/clanak.php?lang Environment Red Alert, Prenj Massif (visited on 17/05/2007)
21. www.dfid.gov.uk/eupresidency2005/flegt.asp (visited on 17/05/2007)
21. FAO, Global Forest Resources Assessment, Country Profiles, Forest Area Statistics, 2005.
22. Global Forest Resources Assessment Update 2005 – Terms and Definitions, FAO 2004. Working Paper 83/E, Rome, pg. 10-11.
23. Grupa autora, Akcioni plan za zaštitu okoliša BiH - NEAP, Sarajevo, 2003.
24. http://www.usitfbih.ba/sumarstvo_bih.html retrieved on December 20th, 2008.
25. Uščuplić M., Šume i održivi razvoj u BiH (Forests and Sustainable Development in BiH), 1998.

26. <http://www.spdzdk.ba/%C5%A0umarstvoBiH/tabid/71/Default.aspx> retrieved on December 20th, 2008.
27. Osnovne informacije o šumarstvu BiH, Brošura 38. EFNS Sarajevo , 2006
28. Osnovne informacije o šumarstvu Bosne i Hercegovine, 38.EFNS Sarajevo, 2006.
29. Republički komitet za poljoprivredu, šumarstvo i vodoprivredu, Dugoročni program razvoja šumarstva u BiH za period od 1986. do 2000. godine, 1986.
30. Srednjoročna Razvojna Strategija BiH (PRSP), 2004-2007
31. 1991. census, Zavod za statistiku Bosne i Hercegovine - Bilten no. 234, Sarajevo 1991.
32. Hadziabdic, S. 2004. Forestry and wood processing in the Federation of Bosnia and Herzegovina. Draft prepared for USAID/BiH PSE Project. Sarajevo.

Web Sites Consulted

(information retrieved from July to September 2009)

1. http://www.lib.utexas.edu/maps/europe/bosnia_pol_2002.jpg
2. <http://www.state.gov/p/eur/ci/bk/c8067.htm> US Department of State
3. http://www.usaidcca.ba/fajlovi/wood/eng/Forestry&Wood_Sector_Review-Dennison-Jan06.pdf
4. Production, sales and stock of forest assortments in 3rd quarter 2009
http://www.bhas.ba/Arhiva/2009/sao/FOR_2009Q3_001_05_BA.pdf
5. http://www.delbih.ec.europa.eu/files/docs/publications/en/FunctRew/Agriculture_en.pdf p21
6. http://siteresources.worldbank.org/INTFORESTS/Resources/ENAFLEG_Fact_Sheet.pdf
7. World Development Indicators database, World Bank, 1 July 2009;
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>
8. http://bhas.ba/Arhiva/2009/tb/BDP_08-bh.pdf