# MARKETING FOREST PRODUCTS IN THE BALKANS

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# **INTRODUCTION**

This report and its presentation are inputs to the Balkan Forest Products Marketing Workshop: From principles to practice, on 3-6 April 2006. The purpose of the report is to be a basis of the discussion and an output of the workshop. This paper describes the situation of marketing forest products in the Balkans, beginning with Serbia and Montenegro, and then covering the other Balkan countries. It discusses the trade and marketing of forest products, the main issues faced by the forest sector, contribution of forest products marketing to sustainable development of the region and conclusions and recommendations. The report, along with the other outputs from the workshop, will be available in the workshop proceedings.

## **1. TRADE**

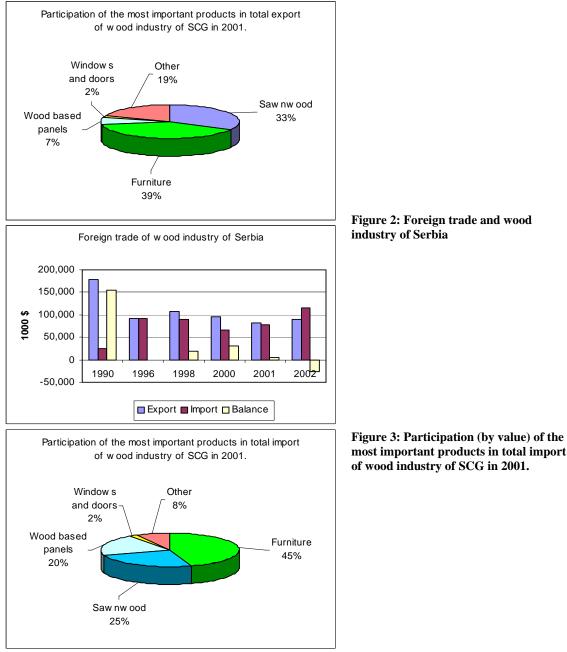
Serbia and Montenegro's forest industry is an export-orientated sector. Serbia accounts for 91.5% of the total wood industry exports, and Montenegro 8.5%. With the exception of 2002, the trade balance for wood industries had been positive since 1996.

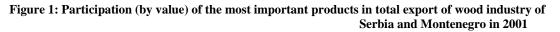
The total value of forest sector exports in 2002 was \$97 million, which represents an increase of 3.2% compared to the previous year. At the same time that exports increased, imports rose as well. In 2002, imports (especially of particleboard, sawn soft wood and furniture) reached a record level over the previous seven years, at \$172.3 million (a 44.5% increase compared to the prior year). This increase is mainly the result of trade liberalization. For example, in the furniture branch, many foreign produces are trying to seize a market share in Serbia and Montenegro. The 2002 trade deficit in the forest sector contributed to the negative foreign trade balance of Serbia and Montenegro. Unlike 2002, the foreign trade balance for Serbia and Montenegro's forest products in 2003 was positive (+\$19 million).

Furniture and sawnwood is dominant at 72% of total exports of wood industries from Serbia and Montenegro. The majority of wood imports into Serbia and Montenegro are wood based panels, sawn softwood and furniture.

The most important markets for the forest products of Serbia and Montenegro are Italy, Bosnia and Herzegovina, Greece, Germany, the former Yugoslav Republic of Macedonia, and France. The total exports of forest products to these six countries in 2002 were \$47.4 million, and represented 53.4% of the total of all exports. Furniture, sawn wood and plywood were mostly exported to Italy, furniture, windows and doors and fiberboard to Bosnia and Herzegovina, and furniture and gallantry were the main products exported to Germany.

The most important sources of wood products imported into Serbia and Montenegro are Bosnia and Herzegovina, Hungary and Italy. Imports from these three countries represent 52.9% of the total imports, with the greatest import quantity coming from Bosnia and Herzegovina. The value of imported wood products (including furniture) from Bosnia and Herzegovina, in 2002, was \$37.2 million, and from Hungary \$15.4 million. Sawn softwood C:\DOCUME-1\DeCastro\LOCALS-1\Temp\notesA37AE0\MarketingForestProductsBalkans140306.doc 27/03/2006 15:32 Page 1 of 18 and furniture are mostly imported from Bosnia and Herzegovina, MDF and particleboards from Hungary. Furniture is mostly imported from Italy.





Belgrade

Source: Serbian Foreign Trade Statistics. RSO,

#### **1.1 Trade in roundwood**

#### 1.1.1 Trade in roundwood in Serbia

Wood trade flows in Serbia are mainly represented by poplar log exports to Bulgaria and Italy, and by imports of softwood logs, Small quantities of higher quality hardwood and pulpwood are

imported from Bosnia and Herzegovina and Hungary (Figure 4). During the period 1996 to 2002, smaller quantities of firewood were imported (around 10,000 m<sup>3</sup>). In 2002, log exports accounted for \$3.1 million, which were about \$0.7 million more than the export value in 2001. The average prices of poplar logs exported to Bulgaria are about  $\text{€40/m}^3$  (EXW <sup>1</sup>) in I/II quality class.

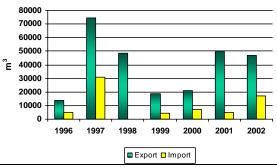


Figure 4: Log export and import in Serbia, 1996-2002

#### **1.2** Trade in sawnwood

The foreign trade balance of sawn hardwood of Serbia and Montenegro is positive. Serbia is the 7<sup>th</sup> largest exporter of sawn hardwood in Europe and 3<sup>rd</sup> in the Balkans (after Romania and Croatia). Record export levels of sawn hardwood from Serbia and Montenegro were achieved in 1998 (\$55.2 million). After decreases in 1999 caused by the NATO bombing, exports again increased in 2000, only to decline again 2001 as a result of the storm salvage timber which saturated the market. However, in 2002 the value of sawn hardwood was \$31.1 million (an increase of \$500,000 or 1.5% over 2001). The increase in export value was caused by slight improvement in the main export markets as a result of increased demand.

In 2002, beech was the dominant component in the exports of sawn hardwood (73%), followed by oak (10%), poplar (4.6%), ash (1.7%) and other hardwood species (10.7%) (2002).

The most important markets for sawn hardwood exports from Serbia and Montenegro are Italy, Greece, Germany, Egypt and Israel. The value of exports to these five countries was 65% of total exports in this sector during 2002. Italy, Egypt and Israel represent traditional markets, but since 1996, Greece and Germany have also imported significant quantity and value of sawnwood.

Since Serbia and Montenegro is a country of hardwoods, internal production generally covers the domestic need, so import of sawnwood is relatively small compared to exports. In 2002, the import of sawn hardwood was 24,000 m<sup>3</sup> with half of that figure being oak sawnwood The total value of imported hardwood was US\$3.1 million. Croatia, Romania, Bosnia and Herzegovina, are the most important countries of origin for the import of sawn oak wood, and sawn beech wood (mainly from Bosnia and Herzegovina).

Given the small quantities of softwood species in the forest fund of Serbia and Montenegro, utilization of these species for sawnwood is relatively small and mainly intended for domestic

Sources: Serbian Foreign Trade Statistics, 2003.

<sup>&</sup>lt;sup>1</sup> ex works (INCOTERMS 2001)

markets. Less then 5% is being exported, with a value in 2002 of \$245,000, of which 38.6% has been exported to Croatia, and 24.3% to Macedonia.

With insufficient domestic production of sawn softwoods, Serbia and Montenegro import significant quantities (\$27.6 million, 2002). During 2002, sawn softwood imports intensified, as a result of construction activities on roads, bridges reconstructions, and the increase of housing construction. Its increase continued into the first half of 2003, reaching \$13.5 million, that is an increase of 7.1% over the same period of 2002.

Sawn softwood is mainly imported from Bosnia and Herzegovina (97%), Romania (2.5%) and Ukraine (0.2%). The average price of sawn fir and spruce wood imported from Bosnia and Herzegovina, 48 mm thick, 3-6m long, in I/III quality class is  $170 / m^3$  (2003).

#### 1.2.1 Trade in sawnwood in Serbia

#### 1.2.1.1 Sawn softwood

Given the high consumption in construction and final wood processing, and because of the lack of domestic production, Serbia imports significant quantities of sawn softwood. The import of sawn softwood represented almost 97% of Serbian importation from Bosnia and Herzegovina (2002), and the average price per  $m^3$  was \$92 (an increase of 4.5% over 2001). However, besides the slight price increase during 2002, the prices of some elements imported from Bosnia and Herzegovina are still significantly below the prices charged by domestic producers.

The sawnwood imported from Ukraine is very competitive, as far as price and quality are concerned. The average price for 76 mm thickness, 4-6 metres long, in the highest quality class is \$160 per m<sup>3</sup> (FOB Belgrade port on the Danube River). In comparison with domestic producers, the price of sawnwood imported from Ukraine is almost about \$10 less. However, after the problems with "Chernobyl", domestic buyers are reluctant to purchase.

	1999		20	00	2001		1 2002	
	m <sup>3</sup>	\$1000						
Bosnia and	210,564	35,313	293,994	34,654	280,689	24,510	329,512	30,070
Herzegovina								
Romania	1,286	107	22,591	2,217	11,092	1,045	7,827	779
Ukraine			3,346	197	1,256	106	682	63
Other	218	30	1,386	125	2,678	277	1,946	358
countries								
Total	212,068	35,450	321,317	37,193	295,715	25,938	339,967	31,270

Table 1: The most important countries exporting	ng sawn softwood into Serbia
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Source: Serbian Foreign Trade Statistic, 2003.

Very little sawn softwood is exported from Serbia in 2002 (about 5%, with most of this going to Croatia, Republic of Macedonia, Germany and Greece.

#### 1.2.1.2 Sawn hardwood

With the exception of 1999, exports of sawn hardwood increased from 1996 to 2000, making it one of the few products that were exported from Serbia during this time.

As a consequence of the heavy wind and snow-damaged timber in Europe during the winter of 1999/2000, there was an oversupply of sawn hardwood in Europe. Despite this, Serbia has

a held a positive trade balance. The largest of which was achieved in 1998, amounting to \$55 million (Table 2).

	1998	1999	2000	2001	2002
Export	55,230	42,749	51,384	30,679	31,141
Import	246.0	2,755	2,703	2,288	3,374
Balance	+54,984	+39,994	+48,681	+28,391	+27,767

 Table 2: Foreign trade exchange of sawn hardwood (\$1000)

Source: Serbian Foreign Trade Statistic, 2003.

An increase in consumption caused an increase in production of domestic furniture, and thus a decrease in sawn hardwood exports. In 2002 exports were 151,740 m<sup>3</sup>, 7.9% less than the previous year, however, the value increased to \$31.1 million, which is an increase of 1.5% over the previous year. The increase of the beech-sawnwood contributed to this value increase. Even the volume of exported beech-sawnwood dropped by 35,000 m<sup>3</sup> (2001) and 31,000 m<sup>3</sup> in 2002. However, the average price of beech-sawnwood increased from \$176 per m<sup>3</sup> in 2001 to \$196 per m<sup>3</sup> in 2002, thanks to the export of long sawnwood (2.1 metres and longer).

The most important markets to which Serbia exports its sawn hardwood are Italy, Greece, Egypt, and Israel (Table 3).

Country	2001	2002
Italy	10,108	9,373
Greece	5,141	5,088
Egypt	2,198	1,801
Israel	-	1,548
Russian Federation	1,853	
Other	11,379	13,331

Table 3: Most important markets for sawn hardwood export of Serbia (\$1000)

Source: Serbian Foreign Trade Statistics, 2003.

Italy remains the most important market for Serbian sawn hardwood. In 2002 Serbia exported almost 46,000 m<sup>3</sup> of sawn hardwood to Italy. Compared to 2001, this volume represented a decline for about 7,000 m<sup>3</sup>. The value of achieved export to the Italian market in 2002 reached the level of \$9.4 million. The beech sawnwood was the most exported (31,000 m<sup>3</sup>), followed by oak (1,793 m<sup>3</sup>) and poplar sawnwood (5,425 m<sup>3</sup>).

The demand of sawn hardwood for use in the preparation for the Olympic games in Greece, increased exports from Serbia to Greece in 2002. Total exports reached 27,316 m<sup>3</sup> (1.1% more than 2001). Of that, beech sawnwood was 20,300 m<sup>3</sup> (12.8% more than 2001), while the export of oak sawnwood decreased from 6,200 m<sup>3</sup> in 2001 to 5,800 m<sup>3</sup> in 2002.

Owing to strong competition from Romanian exporters, beech sawnwood exports to Egypt has continued to decrease in 2002, reaching the record low level of 7,031 m<sup>3</sup> (\$1.5 million). Unlike Egypt, the exports of sawn hardwood to Israel increased. Almost 3,000 m<sup>3</sup> (\$.600,000) sawn hardwood has been exported to this market. Besides these markets, exports of sawn hardwood to China started.

The most important hardwood species that are being exported from Serbia are beech, oak, poplar and ash. The most important markets for beech sawnwood are Italy, Greece, Egypt, Israel, and in 2002, its export to China started again. Oak sawnwood is the main species exported to Greece and Italy, with Poplar sawn wood going to Italy, Slovenia and Croatia. The most important market for sawnwood of ash and fruit trees is Italy.

The quality of sawnwood that is being exported from Serbia varies from market to market. The Italian market is very demanding as to the quality from Serbia (also the former SFR Yugoslavia and Romania) requiring quality class A (both side clean; knots, light/dark heart and dislocation are not permitted), and often will file claims if the wood does not meet their expectations. The markets of Greece and Israel are less demanding (compared to the Italian market), so I/II quality class is dominant in the sawnwood export on this market. The lower quality classes of sawnwood are mainly exported to Egypt, where the "C" class participates with about 50%. Steamed beech sawnwood is mainly being exported to this market.

Serbia imports relatively small quantities of beech sawnwood, but oak sawnwood is imported in large quantities as a result of limited amounts of oak in Serbian, but also because of decreased harvest of oak. In 2002, oak sawnwood imports was 12,900 m<sup>3</sup> (\$1.48 million). Oak sawnwood comes mainly from Bosnia and Herzegovina (85%), Croatia (5%), and Ukraine and Hungary.

Besides oak some furniture producers also import beech-sawnwood (mainly from Bosnia and Herzegovina) to get lower prices. In 2002, 9,000 m<sup>3</sup> (\$941,000) of beech-sawnwood was imported from Bosnia and Herzegovina.

Prices of long, edged beech sawnwood (2.1 m on), 50 mm thick, 12 cm wide on, in "A" quality class, kiln dried, were \$525 per m<sup>3</sup> (early 2003, CIP <sup>2</sup> Milan), which is an increase of roughly  $25/m^3$  over the mid-year 2002 price. The price of short (0.5 – 0.9 m) beech sawnwood, 10 cm and greater wide, 25/38 mm thick, kiln dried was \$150 /m<sup>3</sup> (CIP Milan). Average price of beech flitches (un-edged sawnwood), non-steamed exported to Israel, 2.0 m and longer, 16 cm and wider, 38 mm thick, in "A" quality class was \$250/m<sup>3</sup> (EXW <sup>3</sup>). The price of edged beech sawnwood to China was about \$390/m<sup>3</sup>, for 2.15-2.4m long, clean on all four sides, 50 mm thick (CIP Romanian port).

#### **1.3** Trade in wood based panels

Serbia and Montenegro has a negative foreign trade balance for wood based panels. In 2002, it reached the record level of \$32.6 million. This was due to the sudden increase of particleboard and MDF imports. These two products make 86.7% of the total wood based panel imports. With the current financial problems and ownership transition issues that both of the domestic particleboard plants are in, only about 5% of domestic demand is supplied from within Serbia and Montenegro.

The record level of import of particleboard and medium density fibreboard (MDF) was achieved in 2002 with a volume of 118,352 m3 or \$20.8 million. With the exception of 1999, MDF imports have increased in all years. The other reason for the increase of MDF and particleboards imports is the increase of furniture production, and especially of panel furniture<sup>4</sup>, which dominates demand in the domestic market.

Particleboard is mainly imported from Hungary, Czech Republic, Slovenia, Austria and Greece. The import from these five countries, in 2002, was \$17.9 million, and represented 86% of the total imports of particleboard and MDF. Hungary is the most important source for Serbian particle board import at 70,000 m<sup>3</sup> per year (about \$12 million), and represents about

<sup>&</sup>lt;sup>2</sup> carriage and insurance paid to (INCOTERMS 2001)

<sup>&</sup>lt;sup>3</sup> ex works (INCOTERMS 2001)

<sup>&</sup>lt;sup>4</sup> Furniture made out of wood based panels, especially of particle boards.

60% of the total import. The second most important country for particle board imports is Czech Republic, at around 11,000 m<sup>3</sup> (\$2 million). The average import price of refined particle board from Hungary is  $$155/m^3$  (18 mm thick), while the price of the domestic refined particleboard of the same thickness is  $$145/m^3$ , but of significantly lower quality.

Since there are no domestic producers of MDF, Serbia and Montenegro import significant quantities (24,200 m<sup>3</sup>, \$7.5 million). Two thirds of the MDF imported is uncoated MDF, which is mostly imported from Hungary, Germany, Czech Republic and Ukraine (coated MDF comes primarily from Germany, Switzerland and Hungary).

Exports of particleboard from Serbia and Montenegro are very small (\$257,000 in 2002), due to poor production facilities and the increase of domestic consumption. The trend was similar in prior years, going back to 1998.

The plywood foreign trade balance of Serbia and Montenegro is positive despite a production decline. Plywood exports have been in decline since 1999, after increases in the period from 1996 to 1999, reaching a maximum level in 1999 (\$3.03 million). Plywood exports in 2002 were less than a third of the 1999 level (\$992,000). Plywood production reductions, intensified construction activities, and furniture production influenced the increases of imports. In 2002, plywood imports were \$760,000 with indications of further increases during 2003 (since plywood plants are in ownership transformation and still operating with reduced capacities). Plywood is mainly being imported from Bosnia and Herzegovina and Bulgaria. The most important market for plywood exported from Serbia and Montenegro is Italy (which takes almost two thirds of exports), with the rest going to Macedonia, Germany and Hungary.

The foreign trade balance for hardboard was positive until 2001. However, since 2002, hardboard imports have increased to the level of a negative trade balance. Coated hardboard dominates imports, while uncoated dominates domestic production. Coated hardboard is mainly imported from Hungary and Germany, and uncoated hardboard is mostly exported to Bosnia and Herzegovina, Greece and Macedonia.

#### 1.3.1 Trade in wood based panels in Serbia

Because of the problems that the only factory in Serbia for production of particle board is facing, the import of these boards marks the incline from year to year.

Foreign plywood demand is practically "unlimited". In order to meet the foreign demand, an increase of production would be necessary through privatization and modernization. Serbian plywood export has been declining since 2000, not for the lack of a market, but because of production declines.

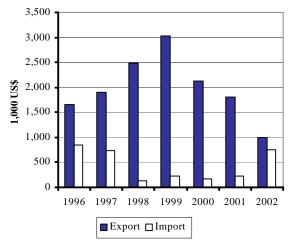


Figure 5: Plywood export and import in Serbia, 1996-2002

Source: Serbian Foreign Trade Statistic, 2003.

Plywood from Serbia is mainly exported to Italy, The FYR of Macedonia and Germany. Total plywood exports from Serbia to Italy in 2001, were \$1.32 million, and represents 74% of the total export value. Poplar plywood is mostly exported to Italy in the following dimensions: 2500 x 1220 x 18 or 20 mm and 2250 x 1220 x 18 or 20 mm. CC quality class is dominant, and is 60% of the total. CC class of plywood is sold on Italian market use in upholstered furniture, and in small number of cases it is overlaid with other veneer. Besides the CC class, the poplar plywood in BB/CC and BB/BB quality class (both sides clean) is being exported on Italian market. The average prices for poplar plywood going to Italy in 2002 was: BB/BB, \$310-320/m<sup>3</sup>; BB/C, \$285-295/m<sup>3</sup>; CC, \$260-265/m<sup>3</sup>. Prices are on parity, FOB (loaded on truck). The FYR Macedonia is the second most important export market for poplar plywood, mainly construction planking, 18 and 20 mm thick, improved with thermal foil. These panels are produced with melamine glues and are waterproof. These panels have a price which is significantly higher than other panels, and is between \$400-425/m<sup>3</sup> (on parity EXW). Beech plywood is also exported from Serbia, most often in dimensions 2250 x 1220 x 10-20 mm in BB/BB quality class.

Imports of plywood to Serbia are relatively small. Domestic consumption is about 10,000  $\text{m}^3$  per year, and is satisfied primarily by domestic production (the total import of roughly 500  $\text{m}^3$  is the result of re-export of these boards from Bosnia and Herzegovina origin to Italy and Macedonia. For example in 2000, the import was only 900  $\text{m}^3$ , and in 2002 1,750  $\text{m}^3$  (\$746,000).

Veneer represents a significant product of Serbia, as almost 2/3 of the production is exported, and the net currency effect has been positive (

Figure 6). The 1997 veneer export was \$4.3 million, which was a record thus far.

4,500 4,000 3,500 3,000 1,000 US\$ 2,500 2,000 1,500 1,000 500 0 1996 1997 1998 1999 2000 2001 2002 Export Import

Figure 6: Veneer sheet export and import in Serbia, 1996-2002

Source: Serbian Foreign Trade Statistic, 2003.

Italy is the most important market for veneer export from Serbia (in 2002, 79% of the total). The most important species that are exported to this market are oak and ash. The average export prices for oak veneer from this market was  $1.20/m^2$ , for 206 - 250 cm long sheets in I quality class (FOB). Veneer is also exported to Slovenia (oak and beech), Croatia, Greece (oak, beech) and Germany (ash). The price of beech veneer (I and II quality class, door dimensions) exported to Germany is from 0.60 to  $0.75/m^2$  (FOB). Veneer imports are not significant in the total forest product imports to Serbia (domestic production covers the demand). There is some importation of exotic species veneer.

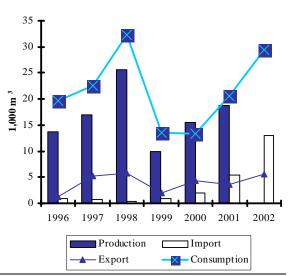


Figure 7: Hardboard production, export, import and consumption in Serbia, 1996-2002

Source: Serbian Foreign Trade Statistic, 2003.

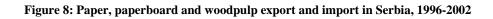
Raw hardboard is exported to Bosnia and Herzegovina, Greece and Macedonia, (mostly for door production). The price of raw hardboard, 3.2 mm thick, and 2.8 x 1.7 metres was  $0.65/m^2$  (EXW).

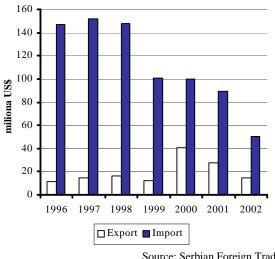
Serbia does not produce medium density fibreboard (MDF), however the furniture industry development has led to high consumption of it thus increasing MDF import. MDF is mainly imported from Hungary, Germany and Czech Republic. Imports from Hungary makeup 30% of the total. Of other panel types, small quantities of OSB have been imported in 2002 (Serbia does not produce OSB). As of early 2003, the prices for (2750 x 1840 x 19 mm) MDF imported from Germany (CRONOTEX) are \$300-315/m<sup>3</sup> (CIP).

#### 1.4 Trade in paper and pulp

Serbia and Montenegro imports significant quantities of pulp and paper as the result of decreased production and increased consumption (Figure 8). The majority is press and printing paper (46.1%), while pulp accounts for 17.4%. Sulphate pulp has been imported from Romania, Russian Federation and Sweden, and paper imported from Slovenia, Austria and Germany.

The liberalization of foreign trade resulted in competition pressure from foreign producers, which supplied better quality at a lower price. This is why the paper industry needs fast structural changes with the aim to preserve and increase its share of the domestic market. If this does not occur, greater problems, for an industry, which is of strategic importance to Serbia and Montenegro, may occur. The first step to these changes is privatization, and financial help from the State.







Source: Serbian Foreign Trade

### 1.5 Trade in value-added forest products in Serbia

#### 1.5.1 Furniture

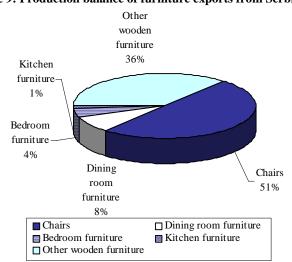
The Serbian furniture industry is export-oriented, with a positive foreign trade balance.

	Production	Export	Import
1996	51.0	43.0	28.0
1997	57.0	48.0	25.0
1998	61.0	39.0	17.0
1999	44.0	28.0	11.0
2000	59.0	29.0	11.0
2001	56.0	27.0	20.0
2002	64.0	34.0	33.0

Table 4: Wood furniture production and trade in Serbia, 1996-2002 (\$million at current prices)

Sources: Statistical Yearbook of Serbia, 2003 and earlier issues. Serbian Foreign Trade Statistic, 2003.

The structure of furniture exports from Serbia is shown in Figure 9.



#### Figure 9: Production balance of furniture exports from Serbia, 2002

Source: Serbian Foreign Trade Statistic, 2003.

The most important markets for furniture exports from Serbia are Italy, Bosnia and Herzegovina, Macedonia and France. Smaller quantities are exported to Germany and Greece. Living room furniture exported from Serbia is mainly of foreign design (Italy, Germany, Greece). This input of "design know-how" is very useful to the producers for use with products that are intended for domestic and former SFR Yugoslavia Republic markets.

The majority of furniture producers in Serbia manage to satisfy the quality and precision demands of foreign customers, but with great efforts due to poor manufacturing equipment.

The main markets for dinning room furniture exports are: Bosnia and Herzegovina (\$1.1 million), Germany (\$0.54 million), Macedonia (\$0.3 million), and Italy (\$0.1 million). There is a great deal of competition in this market from producers in Poland, Romania, Slovenia, and Croatia, thus promotion is an important aspect to this sector.

Despite the high production of bedroom furniture in Serbia, its export is significantly small amounting to only 4.3% of the furniture share. The most important markets for bedroom

furniture export are: Bosnia and Herzegovina (\$0.5 million), Macedonia (\$0.3 million), and Germany (\$0.2 million).

With the aim of increasing exports, many producers have been innovative in design, functionality, and especially with the material, e.g., EU ecological furniture. The Government supports these efforts through reduction of custom taxes for new technology imports, but also through the creation of an environment to encourage foreign investment and join ventures from outside of Serbia that would enable know-how transfer.

Entering the transition process, liberalization of foreign trade and good marketing by foreign companies (or their representatives) are just some of the reasons for the sudden increase of imports in 2001 and 2002. In 2001 furniture imports hit \$20.1 million (an 83.9% increase over 2000) and in 2002, a record level of \$33 million was reached.

The most important categories of furniture imported are: dinning room and living room furniture (\$3.9 million), bedroom furniture (\$2.1 million) and kitchen furniture (\$1.5 million). Other furniture categories that are significant imports are: office furniture, writing tables, closets, cabinets, and other house furniture.

The most important countries that the furniture is imported from are Italy, Slovenia, Poland, Bosnia and Herzegovina, and during 2002 also Croatia.

#### 1.5.2 Windows and doors

The main recent characteristic of the window market is the sudden substitution of wooden windows by PVC, which has taken 45 to 50% of the total market. This is a result of many orders from the public sector (schools, hospitals, etc.), housing, and the large number of companies that are now producing this product. Besides low maintenance, great insulation capabilities and low cost, producers invest large amounts of money in marketing and distributions. The average price of "PVC window", dimensions 140 x 140 cm is about \$150, compared to \$155 to \$185 for wood.

The window and door export is traditionally directed towards Russia, where the companies from Serbia supply the buildings constructed by domestic companies. Bosnia and Herzegovina and Germany are also significant. The total window and door export was \$5.3 million, while imports reached \$4.8 million.

#### 1.5.3 Hardwood glulam panels

The dominant quality class of finger-jointed wood panels that are produced and exported from Serbia is A/B class. The total exports of finger-jointed wood panels from Serbia in 2002 were about 7,000  $\text{m}^3$ , equal to \$6.7 million in value, which represented about 90% of the total production.

The most important market for these panels export is Germany, followed by Slovenia and Italy.

1. Germany	\$5.2 million
2. Slovenia	\$0.7 million
3. Italy	\$0.6 million
4. Switzerland	\$0.2 million

Finger-jointed wood panels exported from Serbia to Germany 650 mm wide, 1.0-1.3 metres long, and 40-50 mm thick (staircase panels) are selling for  $\$850 - 900/m^3$ . With the depressed state of the German market for these semi-finished materials, and competition for market share coming from many other places, many finger jointed panel producers in Serbia have started to manufacture the finished products, e.g., tables, cabinets, shelves, etc.

Additional value-added gained by manufacturing furniture and interior elements from fingerjointed panels will increase profitability and export value. In that sense, domestic producers invest great efforts to improve the business contacts with furniture producers in Germany and Italy, so as to gain the market share of some Arab countries.

# 2. FOREST PRODUCTS MARKETS OF OTHER BALKAN COUNTRIES

This part contains information on the most important segments of forest products markets of some former Yugoslav republics, specifically Croatia, Slovenia and Macedonia, for which information was available.

#### 2.1 Roundwood market

Croatia is the greatest log producer in the region of former SFR Yugoslavia, with an annual production of over 4.0 million m<sup>3</sup>. Serbia and Slovenia also produce large quantities of logs, while Macedonia has a relatively small production and consumption of wood. Croatia is mainly a hardwood producer (87%), while Slovenia is heavier to softwood (56% in 2001). Hardwoods prevail in Macedonia.

(1000 m)						
	1997	1998	1999	2000	2001	
Croatia	2,976	3,502	4,228	4,201	4,105	
Slovenia	2,567	2,470	2,396	2,609	2,614	
Macedonia	809	707	781	764	593	

# Table 5: Roundwood production in Croatia, Slovenia, Macedonia and Montenegro, 1997 to 2001, $(1000 m^3)$

Source: Statistical yearbooks from each country, 2002.

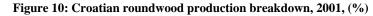
Table 6: The achieved log prices on	n the auction in Croatia, 2003.
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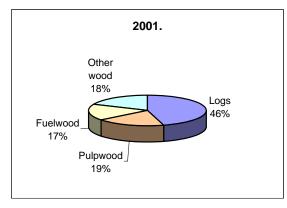
Wood species	Class	Diameter (cm)	Price (€m <sup>3</sup> )
Oak	Ι	30-39	108
Oak	II	25-39	83
Beech	Ι	30-39	67
Ash	Ι	30-39	98
Ash	II	40-49	82
Maple	Ι	40-49	267
Maple	II	40-49	75

Source: Croatia Forests, 2003

An important characteristic of the Croatian log market is that the great quantity of the harvested logs originates from certified forests. Certification by FSC system is almost completely implemented for the state owned forests. A significant part of logs in Croatia are sold by auction to domestic customers and to foreign buyers as well. As a result, Croatia annually exports over \$4.0 million of roundwood. , Sawlogs make up some 90.4% (2001) of

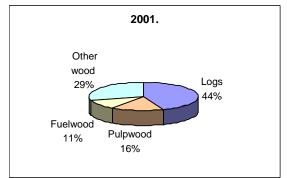
the total, with the rest firewood. The most important markets for roundwood exports are Italy and Slovenia. The prices of oak, beech, ash and maple logs achieved from auction in the beginning of May 2003 are shown in Table 6.





Source: Statistical yearbooks from each country, 2002.

#### Figure 11: Slovenian roundwood production breakdown, 2001, (%)



Source: Statistical yearbooks from each country, 2002.

#### 2.2 Sawnwood market

With the annual production of about 600,000  $\text{m}^3$ , Croatia represents the leading producer of sawnwood (87% hardwood) in the region of former SFR Yugoslavia (Table 7).

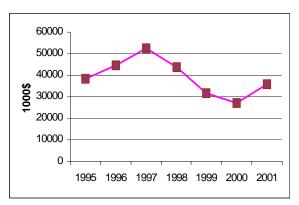
	1997	1998	1999	2000	2001
Croatia					
Sawn hardwood	461,927	424,671	426,629	531,811	519,866
Sawn softwood	98,924	105,520	87,805	94,746	78,863
Slovenia					
Total sawnwood	617,000	555,000	506,000	527,000	453,000
Macedonia					
Sawn hardwood	26,020	17,523	20,827	24,934	
Sawn softwood	6,454	5,975	10,863	11,901	

Table 7: Sawnwood production of Croatia, Slovenia and Macedonia, 1997-2001 (m<sup>3</sup>).

Source: Statistical yearbooks from each country, 2002.

Beech is the leading sawn hardwood, at 51.5% of the total, followed by oak with 35.2%. Besides the leading position in production, Croatia is the leading country for sawnwood exports in this region, with the annual export of over  $400,000 \text{ m}^3$ , whose value exceeds \$35 million (Figure 12).





Source: Croatian Foreign Trade Statistic, 2002.

Croatia exports over 75% of its sawnwood production. The most important markets for sawn hardwood from Croatia are Italy, Slovenia and Austria. The value of exports to these three countries exceeds 75% of its total sawnwood export.

Slovenia takes second place in sawnwood exports. In 2000, its export of sawn softwood reached \$20.7 million. The most important markets for sawn softwood export are Italy, Croatia and Germany. Beech dominates sawn hardwood production in Macedonia, with 99% of the total.

#### 2.3 Wood-based panels

Slovenia is the leading country in the region of former SFR Yugoslavia for production of wood-based panels (Table 8). Particleboard accounts for 81.2% of the total. Slovenia exports 25.4% (2000) of its annual production with a value of about \$10 million. The most important market for particleboard exports is Croatia, and the annual exports to this country are about \$4 million.

Table 8: Wood-based panels production of Slovenia, Croatia, Macedonia and Montenegro,

1997-2001 (m<sup>3</sup>)

	1997	1998	1999	2000	2001
Slovenia	417,000	457,000	424,000	468,000	437,000
Croatia	80,554	83,661	76,618	77,269	81,718
Macedonia	605.0	153.0	455.0	357.0	

Sources: Statistical yearbooks from different countries

Slovenia exports over 25% of its plywood production, with a value of about \$4 million. The most important markets are Italy and Austria. Italy also represents the most important market for veneer export from Slovenia, whose total export amounts to about \$23 million.

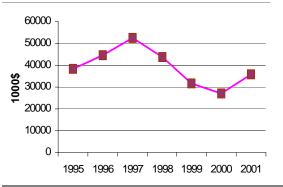


Figure 13: Wood based panels export from Slovenia, 1996-2000

Source: Slovenian Foreign Trade Statistic, 2003

In the total Slovenian import structure of wood-based panels, veneer makes up 35.3%, particle boards 33.7%, hardboards 13.2%, plywood 2.6%, and MDF with 5.2%.

The Croatian foreign trade balance of wood-based panels has been negative in the past years. The deficit in particleboards amounts to about \$31 million. In the export structure, the dominant part is taken by veneer with 66.5% (\$25 million). The most important markets for veneer export are Italy, Belgium and Germany with over 55% of the total veneer export going to them.

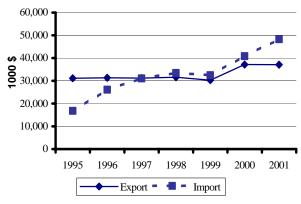


Figure 14: Wood based panels export from Croatia, 1995-2001

Macedonia does not represent the significant exporter of wood-based panels, and they import some, mainly from Serbia.

Source: Croatian Foreign Trade Statistic, 2003.

# 3. CONCLUSIONS

Forest resources have a significant role in sustainable development in the Balkan region. Yet, many of these potentials are not fully used. Much of the existing industrial wood processing capacity is not currently being utilized. Besides timber production, other natural resource values of the forest could be used more. Management of natural resources has a direct impact on production and employment.

The forest industry in the Balkans is in the process of transition, (as is the total economy). The first and most important step in this process is privatization of forest harvest and wood processing. As in other countries, the construction sector will play an important role in forest industry development. In that sense, simplified regulations have facilitated the process of permitting for housing construction. Expectations are that housing construction and renovation of residential and office buildings will increase significantly in coming years. This will undoubtedly increase consumption and production of forests products in the Balkans.

Governments' efforts are increasingly directed towards the creation of a positive investment climate for direct foreign investments in the wood processing sector, and the establishment of joint ventures between foreign and domestic companies.