FULFILLING EUROPEAN UNION MARKET REQUIREMENTS WITH FSC STANDARD IMPLEMENTATION

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ABSTRACT

In order to respond promptly to European market demands in terms of environmental standards and sustainable development, wood processing and furniture manufacturing industry in Republic of Croatia have to follow trends in wood products certification. Today many customers are willing to pay higher price for wood products that originate from forests managed in a sustainable way.

The best – known international organization for forest certification in Croatian market is FSC (Forest Stewardship Council - FSC). FSC is non – profit, non – governmental organization that promotes environmentally appropriate, socially beneficial and economically viable forest management which authorizes the individual organizations (certification bodies) to issue FSC certificates. FSC is best – known standard which confirms that product is made of wood which was responsibly managed. Many Croatian companies have realized the importance of implementation FSC CoC certification and the number of certified companies is continuously increasing. Today 164 companies in Republic of Croatia have FSC certificate for their products. This paper is an overview of FSC certification in wood processing and furniture manufacturing sector. Croatian wood industry is export oriented and implementing FSC certification provides them placement of wood products on the European market and by which they achieve market competitiveness.

1 INTRODUCTION

FSC (Forest Stewardship Council) is an independent, non – governmental, non – profit organization that promotes responsible forest management. It is established in 1993 as a response to global deforestation. FSC is built on democratic standards whose members are from different organizations and work together to promote environmentally responsible, socially beneficial and economically viable forest management. Forest Stewardship Council members can be individuals and organizations representing environmental, social and economic interests, and within the Council have an equal share of members (Fig. 1). It consists of more than 800 members who are divided into three chambers: environmental, economic and social. As representative of economic chamber can be mentioned IKEA and HolzCert Austria, environmental representative Greenpeace and social representative Alliance of Forest Workers and Harvesters.
FSC certification is a voluntary, holding the certificate organization supports responsible forest management. The FSC label ensures that the product is from responsibly managed sources and origin is verified from forest through the whole supply chain. Three types certificates are issued: Forest Management (FM) – certificate for responsible forest management, Chain of Custody (CoC) – for companies that manufacture, process or trade in timber or non-timber forest products and FSC Controlled Wood (CW). FSC Controlled Wood enables manufacturers and traders to avoid usage of wood that is: illegally harvested, wood harvested in violation of traditional and civil rights, originated from forests of High Conservation Values, wood harvested from conversion of natural forests (areas particularly worth of protection), or wood from genetically modified trees.

In FSC chain of custody certified material is tracked through whole production process, including all stages of processing, transformation, manufacturing and distribution.

Currently, 140.51 million hectares world’s forest is certified 21 077 companies is FSC CoC certified and 1 050 FM/CoC certified (FSC). In Croatia 2 018 987 hectares of forests is certified and only Hrvatske šume d.o.o. hold FM/CoC certificate. 163 companies in Croatia hold
FSC CoC certificate, while no company has FSC CW certificate for Control Wood. In the world (Fig. 2), and in Croatia (Fig. 3), number of FSC CoC certificates is increasing.

![Figure 3 Number of FSC CoC certificates in Croatia (source: FSC)](image)

Considering that Hrvatske šume d.o.o. embrace 81% of the Croatian forests area, Croatian companies engaged in wood processing and furniture manufacturing gain advantage over foreign competitors because the most of the domestic raw material is certified. Certified area of Hrvatske šume d.o.o. is the fourth largest certificated area in the Europe (Fig. 4), and the fifth in the world.

![Figure 4 Certified forests in Europe (source: FSC)](image)

2 STANDARD DEMANDS

The main aim for fulfilling FSC requirements is to track certified material through the whole process. FSC certification in wood processing and furniture manufacturing is conducted in accordance with standard FSC-STD-40-004 V.2-0. for CoC certification. Mentioned standard includes five main requirements related to:

— quality system,
— input materials control,
— control and evidence of production,
— usage of FSC trademark,
— supporting documentation.

2.1 Quality system requirements

Those requirements refer to all responsibilities in the company, procedures, employee training, record-keeping and the scope of certification. In order to meet basic requirements (FSC STD-40-004 V.2-0, 2004) organization should perform following actions:

— appoint a responsible person for all activities related to the FSC system, and also for certain departments in a company (purchasing, sales, production, storage, etc.),
— each person included in FSC related works must be trained and demonstrate adequate knowledge for work on these matters,
— establish operating procedures,
— maintain monthly and yearly records, keep related documentation 5 years,
— define product groups.

In appointing FSC system responsible person it is important to assign responsibility to the person who really works at these issues. In practice, responsibility is often assigned to general manager, who usually isn’t fully introduced with the certification and all tasks are performed by technologist. It is essential that responsible person has good knowledge in foreign languages (English, Spanish or French), because there aren’t formal translation of standards in the Croatian language. It is also important that appointed person already gained authority among employees in order to achieve better quality implementation of standard requirements.

There are four types of product groups: FSC Pure, FSC Mixed, FSC Recycled and FSC Controlled Wood. Product groups must be specified in accordance with the FSC product classification and tree species. There are three control systems for determination of FSC claim: transfer, percentage and credit system. In Croatia the most commonly applied is transfer system. Most companies have no problems with purchasing certified materials as the main supplier Hrvatske šume d.o.o. is certified. Some companies purchase uncertified raw materials, mainly from Bosnia and Herzegovina, Serbia and Slovenia, so application of transfer system must be carried out through physical separation of certified and non-certified materials in the entire production process.

2.2 Input materials control

Important part of certification process is origin material control, where specification of input materials and receiving and storing register is needed. Company must maintain list of certified suppliers and conduct continuous validity verification and certification scope. FSC material categories are:

— FSC Pure – FSC 100 %, FSC – certified virgin material originating only from FSC-certified forests,
— FSC Mixed – based on input from FSC – certified, controlled and/or reclaimed sources,
— Post-consumer reclaimed – material from reclaimed products, which have already used by end users,
— Reclaimed – material that was byproduct in production and didn’t come to the end user,
— Controlled wood – not certified, but wood origin is verified.

The supplier validation is very important when purchasing certified materials, it is necessary to verify that the supplier is certified, and to verify category of certified materials.
Frequently in practice errors occur in the control of input materials. If supplier hold FSC certificate that doesn’t mean that all his products are certified. The FSC certification the product is certified, not process. Therefore every incoming invoice and dispatch note must be checked. It is also important emphasize on order documentation that certified material is ordered, so as to avoid uncertified material shipment. When receiving materials organization shall categorize all inputs to FSC product groups by their material category and remain clearly identifiable through the entire process storage. If an enterprise applies transfer control system, in this case physical separation of certified from uncertified material must be applied. In case of using percentage or a credit system, physical separation is not necessary, but strict records of all inputs must been kept. In Croatia, most companies (wood processing and furniture manufacturing) have FSC Pure certificate, while only some companies dealing with paper products have FSC MIXED certificate (eg. Adria Papir). Because majority raw material is certified, our companies have no problem with purchasing.

2.3 Control and evidence production

Monthly and annual production records must be conducted (input, production, output, stocks, sales, material category). If transfer system is applied, that is most common in Croatia, during each production stage certified material must be separated and clearly marked from uncertified. Often the problem arises when calculating conversion factor because it is difficult to determine the exact amount product materials from entering into production when there are different technological options for producing the same intermediate product.

2.4 FSC trademark usage

There are three types of FSC labels that can be used on products: FSC Pure, FSC Recycled and FSC Mixed. It is important to mention when product containing at least 80 % certified materials can be FSC Mixed Sources labeled, and product containing at least 85 % recycled material can be FSC Recycled labeled.

2.5 Shipment and sales documentation

The company must ensure that all documentation (invoices and dispatch notes) provide all necessary information about certified products (FSC claim, quantity, CoC code, product group, type of certification).

3 STATE OF THE FSC CERTIFICATION IN CROATIA IN COMPARISON TO THE WORLD

In the world 140 million hectares of forests has been certified, in certification process 79 countries with 1 044 certificates are included. Europe is in the first place by certified areas and embrace 41,7 % of the total certified areas (FSC), North America follows Europe with 39,4 % (Fig. 5). In respect to the other regions Europe is also the first by the number of CoC certificates. Of the total certified areas in the world, largest part are natural forests (61,37 %), and 52 % of certified forests are publicly owned (FSC).
FSC conducts annual surveys on a global scale in order to gain a real insight into the certification market. Latest research has shown that almost half of the certificate holders are engaged in paper industry, and in Croatia increase of the number of certificates in printing industry is expected, because most of the paper mills are already certified (FSC).

The largest part of the CoC certificate holders in the world sells FSC Mixed products (79.5 %), smaller part sales FSC Pure products (38.9 %), and 27.8 % sales FSC Recycled products. Within mentioned certified products, part of the respondents declared that they sell uncertified products and products of controlled origin - Control Wood, and it is important to note that 6.3 % of respondents sell other products certified by other organizations, such as PEFC, SFI, and CSA.

Research showed that 89 % of companies in the world plans to keep the FSC certificates and the most of the companies are in the Northern, Western and Southern Europe (Fig. 6). One of the reasons why many companies want to maintain FSC certification is that the certified areas are continuously increasing. As a large part of export is directed to the European Union therefore is important that the companies in Croatia follow the trends of certification to ensure competitiveness. Most respondents in the world (91.8 %) believe that FSC organization has key role in promoting responsible forest management. As the main reason for the implementation of the certification referred the customer's request (78.6 % of companies are certified on the
customer’s request), whereby the end user initiates all the links in the supply chain of certification (Fig. 7).

![Graph showing reasons for implementing certification (Source: FSC)](image)

**Figure 7 The reasons why companies implemented the certificate (Source: FSC)**

Although recently a special emphasis is given to sustainable development as the main reason for certification the largest percentage of respondents declare economic reasons, while the environment protection is on the second place of importance. Importance of reputation and brand building associated with sustainability are increasing (Fig. 7).

![Graph showing fulfilled expectations due to implementation of FSC certificate (Source: FSC)](image)

**Figure 8 Fulfilled expectations due to implementation of FSC certificate (Source: FSC)**

Research on a global level has shown that companies fulfilled their expectations by implementing certification (Fig. 8). So certification fulfilled their social and environmental expectations, they retained existing clients, certification provided them access to new clients (59.2 %), and also helped them to build good reputation. Even 45 % of respondents stated that they increased revenues due to certification, 44 % of respondents stated that sale prices increased.

This year a new version of the standard (FSC-STD-40-004 V2-1) is launched and application begins 1.10.2011. and the deadline for implementation is 1.10.2012. According to the new standard the terms of product groups are changed, FSC PURE changes in the FSC 100 %, while FSC Mixed changes in the FSC Mix. According to the new standard, the certificate holder must make a declaration not to participate directly or indirectly: in illegal harvesting and sale of wood and products obtained by illegal means, by violation of traditional and human rights forest management, destruction high conservation values in forest management, conversion forest into...
plantations or in the non-forest land, the introduction of genetically modified organisms in forestry operations, worker rights violations. Also, organizations must demonstrate its commitment to health and safety of employees, and new terms of product groups are introduced.

4 CONCLUSION

The Croatian wood processing and furniture manufacturing companies are export oriented and total export exceed imports due to the increased export of raw wood and wood products, while the import of furniture still exceeds export. The most important export markets are Germany, Italy and France where more than 60% of product value is exported. (HGK, 2010).

By increasing awareness of the European Union market on sustainable development and nature protection, imposing requirements to the wood processing and furniture manufacturing companies to produce in accordance with these principles (Lazibat, 2006). FSC certificate is the most effective and best-known way how the company can guarantee to the customer that cares for preservation of the environment and forests.

There are all prerequisites that Croatian companies can offer to the European market wood products made from raw materials originating from forests that are well managed, because the European customer will prefer to buy such a product, and pay more.

Therefore Croatian companies will not only satisfy the requirements of the European Union market, but can also set new standards regarding the origin of raw material used in production of wood products. Croatian companies by holding FSC certificate can position themselves on the European Union market as manufacturers who cooperate with nature, and therefore represent the Republic of Croatia as a country of European principles which has sustainable managed forests.

In the last years it was considered that the Croatian furniture manufacturers need to brand themselves so that they would become recognized on the international market. Access to the high quality certified raw material ensures to Croatian companies advantage to be recognized in the market as companies that comply with environmental and social principles, and represent sustainable development. The Croatian companies should take that advantage to place their final products on the international market, while it should be prevented that Croatia does not become a source of high quality certified raw materials and intermediate products for the European Union and the rest of the world. Currently export of primary products exceeds the export of furniture, promotion of the sustainable development principles can help in the branding of final products and export increase.

REFERENCES

*** FSC www.fsc.org
*** FSC guide – FSC certification: Chain of Custody – technical guide for manufacturers and suppliers. FSC International Centre.