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Wood supply and its implications for the wood industry

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Abstract: *Wood supply and its implications for the wood industry.* The article presents basic information concerning wood industry in Poland. Attention was brought to the significance of wooden products for domestic industry and construction market. The volume of all products of wood industry used between 2005 and 2011 was analyzed and possible reasons for such situation were pointed out. The significance of the volume of wood obtained for the enterprises converting wooden material.

Keywords: Wood market , wood supply, wood usage, wood removals

INTRODUCTION

Wood sector potential mainly depends on the accessibility of wood and the demand for wooden products. Possibilities of its usage are additionally enhanced by the guarantee of raw material supply and its timeliness. Such conditions provide favourable prospects for enterprises operations securing them systematic and long-lasting development.

In Poland the majority of wood-processing industry depends on its own raw material supply. Main timber supplier on domestic market is the State Forests National Forest Holding, which controls 77,4% of Polish forest area and supplies about 95% of timber mass. The largest share of forests consists of stands aged 41 – 80, that is those which constitute the basis for the operations of sawmills and furniture industry (www.lasy.gov.pl).

Wood sales provide forest districts in Poland with 80% of their income. Such significant share allows to fulfill economic criteria for functioning of the State Forests National Forest Holding. Therefore they guarantee maintaining a favourable economic situation of State Forests, simultaneously ensuring basic level of supply for the companies representing wood industry.

TIMBER MARKET IN POLAND

The size and structure of Polish forests as well as their abundance was created by habitat conditions as well as anthropogenic factors, mainly environment pollution, fires, hurricanes and outbreaks of insects pests obstructing forest arboriculture. These factors mainly condition forest production capacity. (Report…2012).

Wood supply to a large extend is linked to the arboriculture in forests and only to some extend it is determined by the general demand. Hence timber market has a specific character, and the way it functions is influence by the policy of timber trade, the volume of timber removals and access to it in periods following natural disasters (www.lasy.gov.pl).

Poland is among European leaders in relation to the area covered by forests. They constitute 29,2% of the territory of Poland and cover the area of about 9.1 million hectares (Leśnictwo 2012).

As it can be seen in table 1 the area of forests in Poland is still growing. Such situation is the result of the implementation of "National programme of increasing afforestation" (Krajowy program zwiększania lesistości"), developed in 1993 and updated in 2003. It assumes afforestation rate at 30% in 2020 and 33% around 2050 www.mos.gov.pl.

Tab. 1 Afforestation and area of forests in Poland

Total	2005	2006	2007	2008	2009	2010	2011
%	28,8	28,9	28,9	29,0	29,1	29,2	29,2
thousands of hectares	9000,5	9026,0	9048,4	9065,9	9088,6	9121,4	9143,3

Source: Own study based on Central Statistical Office. Leśnictwo 2012 (Forestry 2012)

Gradual increase in forest covered areas allows for sustainable forest management. It may therefore facilitate accessibility of vital raw material for the producers representing forest industry hence improving their planning processes as well as the realization of production targets. Accessibility of timber of certain size and quality classes has a huge significance for the producers of structural timber, glulam or veneers. It concerns large size timber used for obtaining material used in construction.

TRENDS ON THE MARKET OF WOODEN PRODUCTS

The main recipient of timber is wood industry that supplies timber to other sectors of economy. One of the biggest sectors is construction industry that in the recent years has been recording a steady growth in the demand for the products of wood industry. Similar trend is observed in the industry where year to year a demand for specific categories of wooden products grows. Data presented in tables 2 and 3 concerns the utilization of the products of wood industry by the industry and construction from 2005 to 2011.

Tab. 2 Utilization of wood industry products by the industry.

Thousand m^3 Year	2005	2006	2007	2008	2009	2010	2011
Sawn timber - total	4 315	4 522	6 571	6 982	9 161	5116	5363
Coniferous sawn timber	3 387	3 385	5 100	5 521	5 059	4 216	4395
Deciduous sawn timber	928	1 137	1 471	1 461	4 102	900	968
Medium-density fiberboard	163 812	137 471	126 575	137 524	139 011	162 541	192910
High-density fiberboard	72 426	57 661	65 283	73 345	78 345	97 504	144160
Chipboard	3 406	3 257	3 119	4 385	4 122	4 147	4722

Source: Own study based on Central Statistical Office. Leśnictwo 2012.(Forestry 2012)

Tab. 3 Utilization of wood industry products by construction sector.

Thousand m^3 Year	2005	2006	2007	2008	2009	2010	2011
Sawn timber - total	206	218	306	383	337	322	319
Coniferous sawn timber	190	198	289	356	296	297	292
Deciduous sawn timber	16	20	17	27	41	25	27
Medium-density fiberboard	190	172	340	342	224	307	279
High-density fiberboard	41	35	66	92	64	104	140
Chipboard	43	51	62	170	174	204	139

Source: Own study based on Central Statistical Office. Leśnictwo 2012. (Forestry 2012)

From the presented data it may be concluded that both in the industry and construction sector in the period under analysis a steady growth in the usage of wood industry products is being observed. In the industry the most significant increase among the above mentioned assortment was recorded for fiberboards (sales growth ratio in 2011 in comparison with 2005 amounted to 199%). In case of chipboard, of which about 11% constitutes of oriented strand boards - OSB, this ratio amounted to 138,6%. For the purpose of comparison in construction for high-density fiberboards it was 341%, and for chipboards: 323%. However, it needs to be emphasized, that despite of such significant increase in the usage of those products, volumes utilized in the industry and construction are incomparable – in 2011 the usage of high-density fiberboards in the industry amounted to 144 160 thousands m^3, while construction sector in the same period of time utilized only 140 thousands m^3 (Leśnictwo 2012).

In 2008 unstable economic situation due to world-wide crisis led to a decrease in the demand for wood and wooden products. This situation contributed to an undoubtedly lower demand for some products what for many producers meant a smaller market. Its result was a smaller internal and external demand level also for timber. Analyzing data from tables 2 and 3 it can be seen that as the result of then prevailing economic problems in many cases significant limitations in the volume of usage of selected wood industry products took place. First decreases were observed in 2009 in construction and they concerned coniferous sawn timber and fiberboards. In 2010 a slump in the usage of sawn timber by the industry was recorded. However the level of usage of fiberboards gradually increased. One of the reasons could be economic aspect as in the situation of crisis there has been a search for an alternative for expensive timber that was often meeting neither quantity nor quality criteria. Of major importance was also the stable position of many Polish furniture companies, which are the main recipient of fiberboard industry products. It is worth noticing that engineered wood used in furniture is of high quality what enhances the value of the finished products. As the result the companies have a stable share in the market not just domestic but mainly foreign. Hence even some reduction in customer orders due to a decrease in consumption did not adversely affect their financial condition and their furniture quality to date, as well as their price still was a substantial asset on the outside markets. It was possible due to still lower, than in other European countries, costs of labour.

TIMBER SUPPLY IN POLAND

In Poland timber supply is the result of the volume and structure of wooden resources. In 2011,34877 thousands m^3 of net timber were acquired, out of which the State Forests acquired 32789 thousands m^3 (Report on Forests condition in Poland. - Raport o stanie lasów w Polsce 2012).

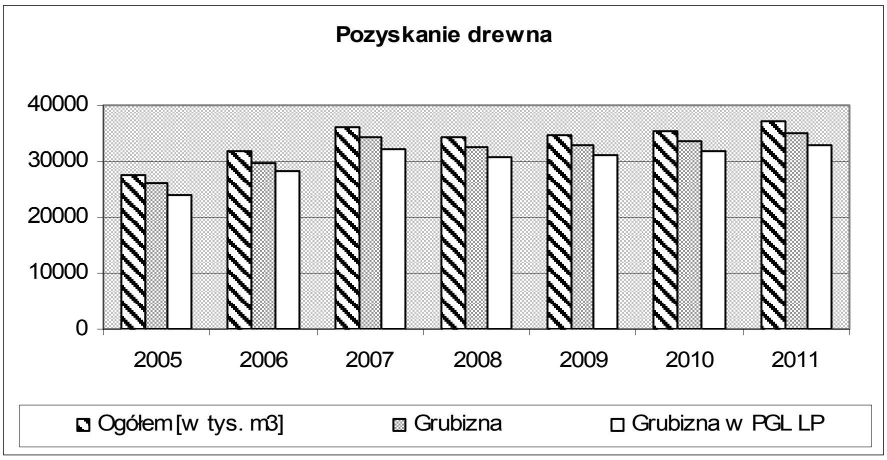

Fig. 1 Wood removals from 2005 to 2011
Source: Own study based on Central Statistical Office.

In figure 1 the volume of wood removals between 2005 and 2011 was presented. The data suggests that in the last few years the level of wood removals was slightly increasing. The increase in those removals is of tremendous significance for the manufacturers of wooden products, as it increases raw material accessibility facilitating rational production planning. It is of major importance, especially for large foreign corporations which transfer their production to Poland. For them access to raw material from the State Forests is more predictable than access to that material in their own countries where, to a large extend, it comes from private forests. Hence Polish wood industry raised capital for example from Germany, Switzerland or Sweden (Pfleiderer, Homanit, Krono, Swedtimber).

For wood industry it is important to take action that would guarantee wood supply that would be adequate both volume and quality – wise as well as ensure timeliness of delivery. It is of crucial importance from the point of view of production preparation or the type of manufactured products. Of crucial importance is also the price of raw material as its instability makes it difficult to plan the costs of material causing higher costs of production. Such situation especially in case of sawmill industry or plywood industry may cause disruptions in profitability levels or force manufacturers to increase the prices of their final products, jeopardizing the profitability of their production.

CONCLUSIONS

Poland is one of the larger producers and exporters of wooden products in Europe. Despite such good position in the ranking, the condition of Polish forests is still improving. It is possible due to the consolidation of forest areas and the State Forests continuous and balanced forest management. Such situation offers a chance for wood industry as it creates a possibility of larger removals what again entails the increase of production predictability.

The position of forest and wood sector is significant and the industry processing wood and engineered wood products is among those of great significance both within the country but also abroad. In this sector a substantial potential for innovation is being noticed, especially in relation to produced materials and used technologies. Taking into consideration the possibilities for development and tremendous potential of both forest and wood sectors the cooperation in terms of wood removals and supply is of vital importance.

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Streszczenie: *Podaż drewna i jej znaczenie dla przemysłu drzewnego.* W pracy przedstawiono podstawowe informacje na temat rynku surowca drzewnego w Polsce. Zwrócono uwagę na znaczenie wyrobów drzewnych dla przemysłu krajowego i budownictwa. Przeanalizowano wielkość zużycia drewna w latach 2005 – 2011 i wskazano możliwe przyczyny takiego stanu rzeczy. Podkreślono znaczenie wielkości pozyskania drewna dla przedsiębiorstw przetwarzających surowiec drzewny.

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