Perspectives and Possibilities for Development of Rural Areas in Vojvodina Through the Sector of Non-Wood Forest Products

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Abstract

Community living in the forest areas in and around them, often relies on non-wood forest products (NWFPs) for the purpose of personal existence. Although NWFPs are not fully involved in the economic development programs in most states, however, they provide significant cost benefits for rural entrepreneurs across the country. This is confirmed by the growing domestic and international demand for NWFPs is growing and forestry sector gets a new awareness of their importance. Aim of research is to examine the possibilities of developing the sector of NWFPs in Vojvodina, through the analysis of small and medium enterprises engaged in purchasing, processing and marketing of NWFPs. For the purpose of the research was analyzed fifteen enterprises engaged in purchasing, processing and marketing of NWFPs in Vojvodina. The method applied in this research was the modeling method, trend analysis, regression and correlation analysis. For testing the correlation coefficient and the parameter used is the F test and t-test, with significance level $\alpha = 0.05$. From research techniques applied to the survey in questionnaire with the interview. On the area of Vojvodina in NWFPs sector dominate small family businesses, primarily focused on honey production and processing and marketing of medicinal plants. Based on the trend analysis it is shown a positive trends in the purchase and sale of processed products, which indicates the existence of potential and real possibilities for starting small and medium enterprises in this part of Serbia. In recent years, domestic and international demand for NWFPs is growing and forestry sector gets a new awareness of their importance. In addition to providing a variety of economic, social, cultural and environmental benefits for society in general, NWFPs also play an important role in the life of local communities that rely on wood as their main source of income. Also, raw material availability and diversity that characterizes the region of Vojvodina, encourages especially the rural population to focus on the collection of NWFPs in nature offer them on the market. This opens up the possibility of launching rural entrepreneurship based on NWFPs and indirectly to poverty reduction in rural areas.

Keywords: *enterprises, non-wood forest products, rural areas, trend, Vojvodina*

INTRODUCTION

Non-wood forests products (NWFP) have an important role in the livelihoods of many rural communities, particularly in developing countries, where they provide a broad range of subsistence and commercial livelihood opportunities (Jumbe 1997; Pimentel 1997; Yavuz *et al.*, 1999; Cavendish 2000; Wiersum and Shackleton 2003; Jimoh 2006; Burgener and Walter 2007; Mulenga 2011). NWFPs are a resource of vital importance for the personal use in the time of natural disasters, but in the last period are becoming more and trademarks.

Raw material availability and diversity of forest products in Vojvodina, daily encourages important part, especially the rural population to focus on the collection of NWFPs in nature to a raw product offering on the market. In sector of NWFPs in Vojvodina dominated small family enterprises, primarily focused on honey production and processing and marketing of medicinal plants (Marčeta and Keča 2014).

Communities living in rural areas often rely on natural resources for the purpose of personal existence and the most of them are the poorest and

most vulnerable members of society in developing countries (Bishop, 1999). In such circumstances, NWFPs have a very important role and is traditionally collected by the local population.

The main objectives for the promotion of NWFPs are increasing revenues and creating employment opportunities, especially in rural and poor areas (Falconer 1990, FAO 1995, Ayanwuyi 2013). Opinion that NWFPs are an ideal base to generate revenues of poor entrepreneurs usually based on the assumption that these products are relatively abundant. In addition, this products group is characterized by the low cost of entering the market, which makes them attractive for the majority of entrepreneurs with a lower standard.

The special contribution of NWFPs is traditionally linked for local where approximately 80% of the population in developing countries use NWFPs for food and as a source of extra income (Grabado and Gloria 1999). From the social aspect, contribution of NWFPs sector development is reflected on the poverty reduction and prevention of migration flows, primarily of rural population.

A very important role of NWFPs in rural areas is reflected in the assistance provided to households these areas to cope with time disasters, rapid economic, social and bio-physical changes in the environment etc. (Shackleton and Shackleton 2004).

Area of Vojvodina is categorized as predominantly rural area with intensive production and it is one of the most agrarian areas in Europe (Marčeta 2012, Muhi 2013).

In Vojvodina dominates agricultural production, while the collection of NWFPs becoming increasingly important activity that involved residents of rural areas. These products, collected in nature, in addition to personal use, are increasingly being used for commercial purposes.

This research included fifteen enterprises in Vojvodina engaged in purchase, processing and selling honey products and products based on medical herbs.

The aim of research is to examine the possibilities for developing the sector based of NWFPs in Vojvodina, through the analysis of small and medium enterprises engaged in purchasing, processing and marketing of honey and medical herbs. Subject of research is enterprises in Vojvodina, quantities of purchased and sold products on domestic and international market,

prices of these products as well as the distribution channels and promotion.

MATERIAL AND METHODS

For the purpose of the research was analyzed fifteen enterprises engaged in purchasing, processing and marketing of NWFPs. Most of the enterprises are located in the rural areas of Vojvodina. The research covered the period of 2007 - 2013 year. From research techniques applied to the survey in questionnaire with the interview. Questionnaire contained 52 questions with focus on: quantities of purchased and sold products, price of these products, distribution channels and promotion, There was a few question about subjective attitude about terms of business and problems they faced on market. The primary method applied in this research was the trend analysis, regression and correlation analysis. For testing the correlation coefficient and the parameter used is the *F* test and *t*-test, with significance level $\alpha = 0.05$.

Fig. 1. Locations of the analyzed enterprises

The enterprises are located in several locations in Vojvodina in the following municipalities: Backa Palanka, Pancevo, Bac, Zabalj, Novi Sad, Apatin, Zrenjanin, Ruma, Becej and Sremski Karlovci (Fig. 1).

RESULTS AND DISCUSION

All of analyzed enterprises are privately owned and the majority of them are located in rural areas. Their main products are: honey and honey products (pollen, propolis, wax) as well as

Fig. 2. Trends of purchase of row products, placement on the domestic market and export of final products

Tab. 1. Basic elements of regression and correlation analysis

Purchase of row products $Y = 32,629x - 65235$	
Parameters	
a -65235.3	b 32.629 $t(a)$ -8.686 $t(b)$ 8.732 R 0.969 F 76.250
<ul style="list-style-type: none"> - linear trend - strong correlation (0.969) and correlation coefficient is statistically significant, ($Sig.F = 0.03\%$) - parameters are statistically significant for $\alpha = 0.05\%$ (P-value is around 0.03%) - exponential growth rate is 9.4% 	
Placement on domestic market $Y = 189,28x - 378470$	
Parameters	
a -378470	b 189.282 $t(a)$ -7.772 $t(b)$ 7.813 R 0.961 F 61.037
<ul style="list-style-type: none"> - linear trend - strong correlation (0.961) and correlation coefficient is statistically significant ($Sig.F = 0.05\%$) - parameters are significant for $\alpha = 0.05\%$ (P-value is around 0.05%) - exponential growth rate is 9.4% 	
Export of NWFPs $Y = -25,018x + 360,14$	
Parameters	
a 50545.96	b -25.018 $t(a)$ 5.338 $t(b)$ -5.310 R 0.922 F 28.201
<ul style="list-style-type: none"> - linear trend - strong correlation (0.961) and correlation coefficient is statistically significant ($Sig.F = 0.3\%$) - exponential growth rate - 9.7%

Fig. 3. Problems of analyzed enterprises

Fig. 4. Forms of promotional activity in analyzed enterprises

various mixtures of herbs, dry extracts, teas filter and spices.

On the basis of these results it was determined that the purchase of raw NWFPs and placement on the domestic market had growing trend in the period from 2007 - 2013, however, exports had a negative trend during the reporting interval (Fig. 2). The negative trend in exports can be explained by numerous barriers, primarily due to complicated customs and administrative procedures, which it more expensive and slow, and in terms of conflicts of domestic and foreign regulations (Keča *et al.*, 2012).

The basic elements of regression analysis for purchasing, placement on the domestic market and export of NWFPs are shown in the table above (Tab. 1). Based on calculation it can be concluded

very high correlation coefficients (R). Exponential growth rates are positive in the case of purchase and placement on the domestic market and both are 9.4%, while in export exponential growth rate is negative -9.7% (Tab. 1).

On the basis of research responses is determined that the most important problem facing the analyzed enterprises are difficult terrain conditions and unfair competition. In addition, as one of the major problems is highlighted the inadequate design and marketing of products (Fig. 4).

Collection of receivables and illiquid market is the main problem in business of enterprises (58%), while the market is problem of 42% analyzed enterprises.

According to surveyed enterprises an average purchase prices are: honey 2.07 euro per kg, medical herbs and spices 2.09 euro per kg. Average sales prices for certain types of NWFPs are: honey 3.5 euro per kg, medical herbs and spices 13.5 euro per kg and filter teas 3 euro per kg. Prices of products are established by the system "cost plus". The essence of this system is covering the costs arising from production. Pricing based on costs, the most widely used is the method used by enterprises (Milisavljević 1998). The most common form of promoting participation in trade fairs, various kinds of printed materials and internet. The lack of promotional activities entrepreneurs justify by the lack of financial resources to invest in some form of advertising.

The most common form of billing product is "on delivery" (60% of the analyzed enterprises are committed to this type of billing products). Delayed payment use 40% of analyzed enterprises.

Intermediaries in the distribution are mostly retail and wholesale. Pattenella *et al.* (2006) suggests that the systems are "quick" sales and e-commerce, are of great importance for all product categories, especially for perishable goods. Because the main products of the surveyed enterprises (honey, medicinal herbs) do not belong to perishable goods, are equally acceptable in the short and long distribution channels. Entrepreneurs engaged in the production and selling of honey and honey-based products sale, usually, performed personally, and they have not intermediaries in the sale.

CONCLUSION

All analyzed enterprises are privately owned and the majority of them are located in rural areas. Their main products are: honey and honey products such as pollen, propolis, wax, mixtures of herbs, dry extracts, teas filter and spices. Purchase of raw NWFPs and placement on the domestic market had growing trend in the period from 2007 - 2013, and exports had a negative trend during the reporting interval. In 2013 were purchased the most quantity of NWFPs. On other side in 2007 was exported the most quantity of NWFPs. Exponential growth rates are positive in the case of purchase and placement on the domestic market and both are 9.4%, while in export exponential growth rate is negative -9.7%. The most important problem facing the analyzed

enterprises are difficult terrain conditions and unfair competition. In addition, as one of the major problems is highlighted the inadequate design and marketing of products. Changing and illiquid market is problem of 58% enterprises, while the market is problem of 42% analyzed enterprises. Prices of products are established by the system "cost plus". The most common form of promoting participation in trade fairs, various kinds of printed materials and internet. The most common form of billing product is "on delivery", and 60% of the analyzed enterprises are committed to this type of billing products. Intermediaries in the distribution are mostly retail and wholesale. Entrepreneurs engaged in the production and selling of honey have not intermediaries in the sale.

In Vojvodina are identified problems such as lack of information to the population about the possibilities of production, collection and processing technology and investments, the commercial importance of NWFPs, and the awareness of the population, as a potential user of these products (Danilović *et al.* 2009). At the local level there is a lack of knowledge of the commercial importance of NWFPs (Lampietti and Dixon 1995). Similar problems were noted in Vojvodina, where the research was conducted. In fact, there is a lack of information of the population about the possibilities for use of NWFPs for commercial purposes, and about their market relevance.

Products of the analyzed enterprises are mainly sold as part - processed (low grade of finalization), because their market price is lower than the potentially possible. One of the limiting factors for the development of entrepreneurship based on NWFPs in Serbia is the lack of refining capacity would NWFPs achieve a much higher market value.

In order to gain market competitiveness, it is essential that domestic producers intensive use of modern production technology, introduces standards and continuously improve product quality and production processes.

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