

CHALLENGES AT STARTING AN AGRIBUSINESS IN THE HILLY-MOUNTAINOUS REGIONS OF SOUTHWEST SERBIA

Suad Bećirović¹, Šemsudin Plojović², Enis Ujkanović³, Senadin Plojović⁴

Summary

To identify the concrete challenges faced by potential entrepreneurs in agribusiness, a field research was conducted using unstructured interviews to interview 113 farmers from the municipalities of Novi Pazar, Raška, Sjenica, Tutin, Nova Varoš, Prijepolje, Priboj and Ivanjica. The received answers were classified into five groups: infrastructural conditions, access to public services, farm enlargement, market access and availability of funding sources. To solve these problems, the authors propose, among others, investment in infrastructure, change in the taxation of agricultural land, reforming agricultural cooperatives and designing new financial instruments according to the needs of farmers and local specificities. The role of modern cooperatives, where active farmers, land owners and investors will contribute their knowledge and capital, are especially emphasized by the authors.

Key words: agribusiness, land tax, cooperatives, mountainous area, southwest Serbia.

JEL: Q13, Q14, Q15

Introduction

Agriculture has a significant role in Serbian economy. In 2006, the agricultural sector had a share of 11.4% of GDP, whereas it decreased slightly to 9.3% in 2014. (World Bank, 2017a) The high share of agriculture in GDP and the fact that agriculture is a labor-intensive industry makes the agricultural sector one of the most important employers in Serbia. In 2006, almost every fifth employed person in Serbia worked

1 Suad Bećirović, Ph.D., Full Professor, International University of Novi Pazar, St. Dimitrija Tucovića bb, 36300 Novi Pazar, Serbia, Phone: +381 20 33 11 60, E-mail: s.becirovic@uninp.edu.rs

2 Šemsudin Plojović, Ph.D., Full Professor, International University of Novi Pazar, St. Dimitrija Tucovića bb, 36300 Novi Pazar, Serbia, Phone: +381 20 33 11 60, E-mail: s.plojovic@uninp.edu.rs

3 Enis Ujkanović, Ph.D., Associate Professor, International University of Novi Pazar, St. Dimitrija Tucovića bb, 36300 Novi Pazar, Serbia, Phone: +381 20 33 11 60, E-mail: e.ujkanovic@uninp.edu.rs

4 Senadin Plojović, MSc, student of Ph.D. studies, Technical Faculty "Mihajlo Pupin", St. Đure Đakovića bb, 23101 Zrenjanin, Serbia, Phone: +381 20 39 07 00, E-mail: senadinplojovic@gmail.com

in the agricultural sector, whereas this number decreased eight years later to 17.1%. (World Bank, 2017b)

Agricultural production in Serbia makes also a large portion of Serbian exports. In 2006, the share of food, drinks and tobacco exports in total exports was at 18.7%, with an increase to 19.8% in 2014. On the other hand, agricultural products make only 6.4% of total imports in Serbia (SORS 2007; 2015). The agricultural trade surplus is important for the country known for its negative trade balance. In the period 2013-2016, agricultural imports and exports to the EU were rising continuously reaching an export value of €1,223 million, with imports at €1,035 million, causing the positive trade balance of €188 million (EU, 2016).

Despite these positive developments, the 2012 Census of Agriculture ascertained two very disturbing facts regarding land resources: 1) agricultural land of agricultural holdings (3,861,477 ha) covers less than half (49.8%) of the territory of Serbia (7,759,200 ha) and 2) even 424,054 ha or 11.0% of this land is not utilized. (Ševarlić, 2012).

In the eight municipalities covered by this research, 20.3% of the agricultural land is not utilized. The municipality of Sjenica has 26,782 ha of non-utilized agricultural land, which makes 33.5% of the total agricultural land. In the municipalities of Novi Pazar and Ivanjica about 27% of the agricultural land is unused and in Raška 15.5%. However, in the municipalities of Prijepolje, Priboj, Nova Varoš and Tutin less than 10% of the agricultural land is not utilized (Census of Agriculture, 2012). This shows a great disproportion within the observed municipalities, although they all have great agricultural potential. Especially Sjenica offers vast pastures, which are unfortunately not utilized in a sufficient manner.

It is quite clear that this unused agricultural land could be cultivated again, for example in organic food production where the hilly-mountainous areas of southwest Serbia has a comparative advantage, which could lead to increased employment and an increase in exports of agricultural products. The unused land could be also used for honey production by planting acacia, lime and chestnut (Ševarlić, 2012). But the questions arise: why do people avoid such investments? Can farmers from southwest Serbia compete in the open market? Will they be able to adapt to international standards in agriculture? Can they compete with genetically modified products, once their import is allowed in Serbia, or will they be ready to pay license fees for using patented seeds? To give the answers to these questions, we want to present the results of our research in the following sections.

Materials and Methods

Southwest Serbia faces different development constraints, especially a high unemployment rate and an increasing depopulation of villages. At first sight, it would seem logical that one part of the population, particularly the younger ones, should start an agribusiness, since southwest Serbia offers vast portions of high-quality agricultural land, which is often uncultivated. However, empirical evidence shows that this is not the case. Therefore, the goal of this paper is to analyze the problems faced by small farmers who are willing to start an entrepreneurial venture in agriculture.

In identifying the challenges faced by potential entrepreneurs in rural areas two methods were used. First, the authors used existing research and data from the Serbian Ministry of Agriculture, Forestry and Water Management (MAFWM), the World Bank, the European Union (EU) and the Statistical Office of the Republic of Serbia (SORS). The authors also rely on their previous research on the development of agribusinesses as well as on the experiences of other countries in this field.

Second, to identify the concrete challenges faced by potential entrepreneurs in agribusiness, a field research was conducted, according to phenomenological methodology proposed by Berglund (2007), where the authors used unstructured interviews with active and formerly active farmers to fundamentally study their problems, needs and thoughts about their way of life and their expectations. Existing research served as a good starting point for the conversation with farmers. The applied method of unstructured interviews gave respondents room to speak freely, so the authors were able to gain new insights about the life of the farmers in southwest Serbia.

Figure 1. Municipalities covered by this research (marked in grey)



Source: Map adapted from SORS (2016a).

The authors interviewed 113 randomly selected farmers, of which 86 were active and 27 non-active farmers, abandoning their venture during the last two years, from the municipalities of Novi Pazar, Raška, Sjenica, Tutin, Nova Varoš, Prijepolje, Priboj and Ivanjica (Figure 1). At first sight, the number of 113 farmers seems quite high for a qualitative research. However, keeping in mind that many active farmers often have a lower level of education and are relatively elderly persons (above 50 years), the interviews were of different length and quality. Interview duration was highly varying – from five minutes to 60 minutes, with an average duration of 20 minutes. At short interviews, the authors only received general slogans than concrete answers to their

questions. The authors often observed that the farmers face certain type of challenges, but were not being able to explain in detail the problems they face.

In order to gain trust of the farmers, the authors avoided any taping of the interviews, but captured information by taking notes. This notes were analyzed according to data analysis method proposed by Giorgi, mentioned in Berglund (2007), comprising of re-reading the protocols, dividing them into isolated “meaning units”, translating the protocols into standard language and synthesizing and analyzing the transformed meaning units. To reduce subjective interpretation by the interviewers and the interviewees, the authors compared the collected data with the existing research and official data.

Finally, the authors have even gone a step further, in addition to identifying the challenges in developing entrepreneurial ventures in agribusiness and suggested possible models to overcome these challenges.

Results and Discussion

To analyze the challenges, small farmers face in southwest Serbia, we classified all meaning units from the executed interviews into five groups: 1) infrastructural conditions, 2) access to public services, 3) farm enlargement, 4) market access and 5) availability of funding sources.

To show the process of forming meaning units from the collected notes, the authors will present major excerpts from the collected data. Furthermore, to make a clear distinction between the statements of the farmers and the authors, farmers’ accounts are presented using direct quotes.

Infrastructural conditions

Southwest Serbia is isolated from major road networks. The city of Novi Pazar is 170 km away from the closest entry point to the major motorway Belgrade-Niš. Another problem is the quality of the main roads between urban centers. The lack of an adequate road infrastructure leads to longer delivery times for fresh agricultural products, which leads to an income decrease for farmers. This can be seen from the following example explained by one of the interviewed farmers: “When I pick my high-quality raspberries, I have eight kilometers to Novi Pazar, [of which] four kilometers [are] on unpaved road. This journey takes me half an hour. When I arrive at the destination to hand over the fresh raspberries, the quality has already decreased, so I can sell them only as second class.”

Another important infrastructural condition is poor electric power quality. The voltage and current are very unstable. This often leads to a failure of electric motors, which impedes the use of technology in these areas.

Table 1. Examples of farmers' statements with regard to infrastructure

Farmers' statements	Generalization	Synthesis
"We do not have asphalted roads." "Transport to market takes too long." "We have high transportation costs."	Lack of quality road infrastructure	Distribution of agricultural products is difficult due to: <ul style="list-style-type: none"> • Lack of asphalted roads in rural areas • Lack of quality roads between urban centers • Distance of motorways
"Look, how far we are from the motorway."	Distance of motorways	
"Electricity often disappears."	Power supply is not stable.	Lack of quality power supply reduces the use of electrical machines.
"Voltage is too weak to start electric devices."	Offered voltage is too low.	
"We do not have a fast internet."	Internet connection is bad.	Lack of fast internet connections complicates information supply.
"We have only slow internet on mobile [phone]."		

Source: Own illustration

The third important type of infrastructure is communication infrastructure, especially the internet connection. Internet can be used for many purposes, among others for the sale of products and to gather valuable information about prices and subsidies. But, generally a slow internet connection is offered in the villages of southwest Serbia, due to the small number of potential users.

Access to public services

Table 2. Examples of farmers' statements with regard to access to public services

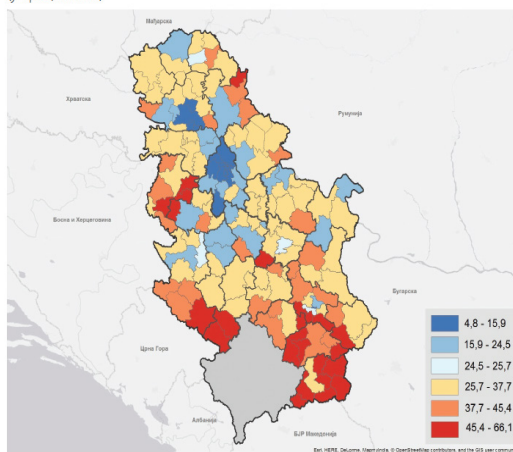
Farmers' statements	Generalization	Synthesis
"Our children have to walk several kilometers to school and without meeting anyone."	Schools are far away from individual houses, without public transport.	Young couples leave rural areas due to: <ul style="list-style-type: none"> • Lack of quality education. • Lack of public transport to school. • Lack of other children, impeding socialization
"Teaching classes are very small."	Small teaching classes due to a small number of children.	
"Teachers cannot come to school during bad weather."	Bad infrastructure to school.	
"Cannot go to doctor regularly."	Hospitals and other medical services are far away from rural areas.	Basic medical needs cannot be satisfied in rural areas.
"Have to go to town for any medicine."		

Source: Own illustration

The poverty rate in southwest Serbia is one of the highest in the country and in the municipalities covered by this research rates from 35.9% in Ivanjica to even 66.1% in Tutin (Figure 2).

Figure 2. Poverty Map of Serbia (Poverty rate in %)

Слика 2: Мапа сиромаштва у Србији у 2011. години: стопе ризика сиромаштва (у процентима)



Source: SORS and World Bank, (2016).

Rural poverty is probably one of the worst forms of poverty, because the individual is placed away from different public services (schools, hospitals, roads etc.). A sizable percentage of interviewees, especially the young couples with small children, highlighted the problem of the distance of the school from houses. During the last years, media is increasingly writing about the phenomenon that pupils must travel even 16 km to the school, under very difficult circumstances. The lack of quality roads does not allow the use of busses for the children, so these pupils go on foot or ride a horse. Due to emigration from villages, pupils travel several kilometers without meeting a person (Telegraf, 2017, January 17). Another consequence of emigrations is a decrease in the number of pupils, so teachers have often only one or two children for teaching in one school class, which affects the quality of education and increases the costs for the state (Mulić-Softić, 2015, February 21).

The authors propose forming a national distance learning program for children in rural areas where parents would be paid a certain amount for their work as supervisor for distance learning. To facilitate the process of socializing with other children and to monitor the success of distance learning, meetings in the local school should be organized periodically.

Farm enlargement

The utilized agricultural land per agricultural holding is very small and divided into many small pieces, which is often surrounded by non-utilized land. The average utilized agricultural area (UAA) per holding in the researched municipalities is 5.07 ha (from 3.01 ha in Raška to 9.74 ha in Sjenica), which is slightly below the national average of 5.44 ha (SORS, 2013a). It is quite clear that a size of 5 ha per holding is too small to develop a profitable agribusiness. Only 1.5% of the total agricultural holdings own land

the size above 20 ha, cultivating 27.5% of UAA in these eight municipalities. On the other hand, holdings possessing less or equal to 10 ha of farmland make 91.4% of all agricultural holdings and cultivate 53.8% of the UAA (Table 4).

Table 3. Examples of farmers' statements with regard to access to the farm size

Farmers' statements	Generalization	Synthesis
"We have only small land."	Agricultural holdings are very small.	Small agricultural holdings imply a low profitability.
"My land is divided into many pieces."	Small land is not concentrated, but distributed on a large area.	
"Land is not utilized, but I cannot use it."	There is much non-utilized land in the region.	

Source: Own illustration

Table 4. Size of Agricultural Holdings in the Municipalities Covered by Research

Size of Agricultural Holding	Number of Agricultural Holdings	% share	Owned agricultural land (in ha)	% share
0 ha	87	0.22%	0	0.00%
≤ 1 ha	9,184	22.70%	5,403	2.63%
> 1 - ≤ 2 ha	7,879	19.48%	11,880	5.79%
> 2 - ≤ 5 ha	12,663	31.30%	42,393	20.66%
> 5 - ≤ 10 ha	7,160	17.70%	50,654	24.69%
> 10 - ≤ 20 ha	2,870	7.09%	38,473	18.75%
> 20 - ≤ 30 ha	423	1.05%	10,397	5.07%
> 30 - ≤ 50 ha	144	0.36%	5,433	2.65%
> 50 - ≤ 100 ha	33	0.08%	2,149	1.05%
> 100 ha	12	0.03%	38,397	18.71%
SUM	40,455	100.00%	205,179	100.00%

Source: SORS, 2013a

To increase the competitiveness of agricultural holdings, it is necessary to increase the utilized farmland per holding. Therefore, the authors propose a change of tax policy towards owners of non-utilized agricultural land.

Under the current circumstances, many inhabitants of rural areas leave their farmland and move to urban areas or even go abroad. However, their owned agricultural land is not sold, because they will only receive a relatively small amount for their real estate in rural areas, due to a low demand. Many migrants from rural to urban areas believe it is not worth to sell 5 ha of farmland to be able to buy a 0.1-acre plot in an urban area. The same is true for leasing farmland, where the prices are also relatively low. A distinctive feature is the case of restituted land, which is often not used intensively, because many of the former owners, or their heirs, have moved to other parts of Serbia or even have emigrated. It is necessary to change tax policy to make the hoarding of non-utilized land expensive.

The Property Tax Law (RS Official Gazette, Nos. 26/01, 45/02, FRY Official Gazette, No. 42/02, RS Official Gazette, Nos. 80/02, 135/04, 61/07, 5/09, 101/10, 24/11, 78/11, 57/12 - US, 47/13, 68/14) offers tax exemptions for agricultural and forest land, which is being put to its original use and buildings intended and used for primary agricultural production, in conformity with the law dealing with agricultural land (Art.12). In the authors' opinion, utilized agricultural land should be exempted from the property tax and the Property Tax Law should replace the term "agricultural land" with "non-utilized agricultural land" (Art. 2, Art. 6).

Furthermore, it is necessary to change the tax base for non-utilized agricultural land, which is determined by the municipality according to useful area and the average price per square meter of corresponding real estate in the zone in which the real estate is located (Art.5, Art. 6.) The authors propose the minimum tax base for non-utilized land in amount of 25% of the tax rate for building plots.

So, let us assume the following case. We assume that a person owns 5 ha of non-utilized agricultural land in the City of Novi Pazar sixth and seventh zone, respectively. According to the average prices determined by Decision on the determination of average prices for square meters of real estate for determining property tax for 2017 on the territory of the City of Novi Pazar (OG NP, No. 9/2015) and a tax rate of 0.3% imposed on land (Property Tax Law, Art. 11), the owner must pay annually 7,350 RSD (€59.53) in the sixth zone and 4,500 RSD (€36.45) in the seventh zone. It is quite clear that in such a case there is no burden on the owner to sell or lease the farmland. Therefore, if the above proposed tax rate was applied a land owner would have to pay 218,700 RSD (€1,771.28) and 139,912.50 RSD (€1,133.17), respectively. Under such circumstances, a land owner will certainly be ready to lease or sell his farmland, which will lead to increased land utilization and farm enlargement.

Market access

Market access means that the farmer is present with an offer and can continuously interact as a supplier with the customer, and that the customers are informed about the conditions of the offer. The market situation for farmers from the hilly-mountainous region of southwest Serbia is not favorable. Analyses of the interviews with farmers indicate small production quantities and a lack of support in marketing of agricultural products that lead to a low return on investment. Farmers also claim that the terms of sale are dictated by middlemen and large customers, such as processors and retailers, who take the biggest part of the profit margin. This claim can be confirmed by empirical data shown in table 6.

Farmers, who want to avoid selling to intermediaries, sell their products locally directly to customers, causing large transport costs and logistical efforts for them, which results in a low return of their sales. Another problem is storage, which is not owned by farmers, causing additional losses. And finally, farms are managed mainly by older owners who are not interested in new agribusiness investments.

Table 5. Examples of farmers' statements with regard to access to market access

Farmers' statements	Generalization	Synthesis
"We only receive a small price for our products."	Profit margin of agricultural products is low.	Low profits due to: <ul style="list-style-type: none"> • Low prices • Small production quantities • Lack of good marketing
"I have only small quantities to sell."	Small production quantities.	
"Our milk and meat are organic, but we receive the same price as others."	Lack of product branding.	
"Middlemen do not pay a fair price."	Distribution dependent on middlemen.	
"Where should I store my products? Markets are far away."	Lack of necessary equipment.	Lack of know-how due to: <ul style="list-style-type: none"> • Insufficient education • Absent modern techniques • Outdated and insufficient equipment
"We don't have modern technology."	Lack of modern techniques and technology.	
"I don't know what and how to cultivate to sell at best."	Lack of knowledge about agriculture.	
"I look what others plant and then we will see how it works."		
"What new techniques should be applied?"		
"I don't know how to apply for state support."	Lack of knowledge about legal rights.	Necessary legal and administrative support
"I have to pay too much for bookkeeping."	Necessary administrative support.	

Source: Own illustration

Table 6. Price Development of Raw milk and Milk in Serbia 2006-2015 (Prices in RSD)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Average Sales price of Raw Cow's Milk per liter	15.18	18.44	23.70	20.80	22.57	28.54	30.33	32.84	32.59	31.64
Average Retail Price of Cow's Milk per liter	37.25	43.96	56.61	52.57	55.57	66.85	70.01	81.24	83.58	84.33
Share of Raw Milk Price in Retail Price	40.8%	41.9%	41.9%	39.6%	40.6%	42.7%	43.3%	40.4%	39.0%	37.5%

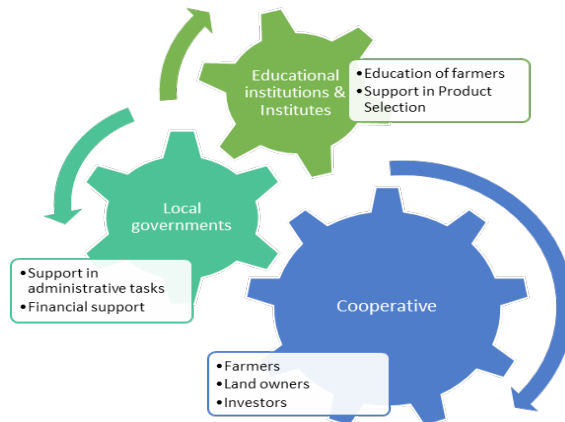
Source: SORS, 2007-2016

We can sum up the business challenges faced by small farmers in the following way: a) product selection, b) production quantity, c) applied technology, d) education; e) marketing, f) capital. All these factors are interrelated and imply the need for the professionalization of agricultural holdings in southwest Serbia.

According to our observation, the willingness of farmers to cooperate is relatively low. The question arises how to motivate people to work together to efficiently use agricultural land, provide high-quality products, which will lead to higher returns and an increased self-confidence? An important way is the establishment of new model of agricultural cooperatives. The general goals of such a new cooperative should be: introducing entrepreneurial spirit and market-oriented agribusiness, increasing utilization of agricultural land, implementation of modern techniques in agriculture (Praća et al., 2017), enhancing farmers' knowledge, developing an efficient marketing strategy for agricultural products and attracting new investors.

The authors propose an equity-based cooperation, based on two different examples: a) a theoretical proposal by Al-Harran et al. (1996) and b) a real cooperative: the Mondragon Corporation from Spain (Fernandez, 2016). In these cases, members are employees and owners of the cooperative, which is rather organized as kind of joint-stock company. The cooperation should include active farmers, owners of non-utilized agricultural land and investors (Figure 3).

Figure 3. Schematic representation of the proposed cooperative



Source: Own illustration

Mondragon Corporation describes itself as “a co-operative business organization that competes on international markets using democratic methods in terms of its company organization, job creation, both the human and professional development of its workers and a commitment to the development of its social environment” (Fernandez, 2016).

Farmers can bring in their land to this new cooperative, or owners of non-utilized land can become shareholders. Moreover, investors with financial capital can contribute to this new cooperative. If potential members did not have sufficient money to become a member, they should be given an interest-free grant by the municipality or the central government, which will be used as revolving funds, to be loaned out to new members. Accumulated capital from earned profits will be used for the repayment of these loans (Al-Harran et al., 1996). In our proposal, every farmer would become a shareholder by

either investing financial or real capital into the cooperative. The raised financial capital will be used for acquisition of fixed and current assets.

It is necessary to balance the interests and power of all members. This can be achieved with a democratic organizational concept of the cooperative with a dominant role of the general assembly and elected executive board. To avoid the dominance of a certain individual or group in the cooperative, a member can only have a maximum of 10% of votes, independent of the capital invested and all-important decisions need a qualified majority of two-thirds or three-quarters (Fernandez, 2016).

Every member must have trust in the functioning of the cooperative. This can only be achieved by receiving exact information about the results achieved (Al-Harran et al., 1996). Members must fulfil two roles simultaneously: first, they are employees and second, they are shareholders. Therefore, they will receive two types of compensation: monthly payment for their work contribution dependent on the type of job done in the cooperative and a variable part linked to the earned profit of the cooperative (Fernandez, 2016).

The lack of skilled farmers is one of the major obstacles for agricultural development in southwest Serbia. There are only two secondary schools (Sjenica and Novi Pazar) and one bachelor program at the State University of Novi Pazar offering courses in the field of agriculture. It is necessary to set up the course for agricultural technicians at least one more secondary schools in southwest Serbia in cooperation with the Ministry of Education. Therefore, a center for long-life learning should be established to provide informal training to members of the cooperative, where courses will be taught in cooperation with secondary schools, universities and professionals.

The local self-government could allocate employees to the cooperative in the form of public-private partnership and provide administrative services to the cooperative such as accounting, financial management and marketing. For example, in the City of Novi Pazar, the service for local economic development has 14 employees and there is also an agricultural consulting service that has 6 employees. Both these services are part of the local self-government. By providing administrative support, the local self-government becomes a partner in the cooperative and can also earn a profit from the cooperative by giving necessary capital to finance the expenses of the administrative part of the cooperative.

Special importance in the cooperative has the marketing division. This division should develop an efficient marketing strategy to sell at better prices due to economies of scale and direct sales to retailers and wholesalers. Finally, cooperation with agricultural institutes will be necessary regarding product selection, especially for producing organic food.

Availability of funding sources

Table 7. Examples of farmers' statements with regard to access to funding

Farmers' statements	Generalization	Synthesis
"I don't know how to apply for state support."	Lack of knowledge about legal rights.	Required administrative support and education for farmers.
"We don't qualify for state support due to bureaucracy."	Complex bureaucracy for state support.	
"Interest rates on loans are too high."	Financing costs are too high.	Financial engineering necessary to meet the needs of farmers.
"Costs for guarantees are too high, despite low interest rates."		
"Cannot receive a loan due to outdated data."	Complex bureaucracy for receiving loans.	
"Our religion prohibits loans with interests."	Specific needs of population.	

Source: Own illustration

The availability of funding sources is one of the biggest challenges starting an entrepreneurial business, or starting a venture at all. The availability of funding sources is one of the major challenges for farmers in the hilly-mountainous regions of southwest Serbia. According to the Law on incentives in agriculture and rural development (OG RS, Nos. 10/2013, 142/2014, 103/2015 and 101/2016) following types of incentives are offered: 1) direct payments, 2) incentives for rural development measures, 3) special incentives and 4) credit support. To distribute these subsidies efficiently, it is necessary to educate farmers about them. Especially, organic production, where the hilly-mountainous areas of southwest Serbia have a competitive advantage, should be fostered by the MAFWM and the municipalities.

Regarding credit support, the major question is the question of interest rates. The line Ministry signed in 2016 an agreement with several Serbian banks and insurance companies for providing subsidized loans to farmers (MAFWM, 2016). At first sight, this is a positive development, keeping in mind that interest rates for loans in Serbia are quite high. But the interviewees complained about the costs for bank guarantees summing up all the costs of the loan, the farmer has similar costs as he would have when taking a commercial loan without subsidies. Additionally, farmers are often not able to obtain a bank guarantee, because of outdated cadastral data and not attractive collateral, such as agricultural land or farm animals. Banks regard both types of collateral as risky, because they are difficult to sell due to a low demand.

To solve this problem and to facilitate the financing of pre- and postharvest operations, the Law on financing and securing the financing of agricultural production (OG RS, No. 128/2014) allows farmers to use their agricultural products as collateral even before harvest, and to obtain working capital as credit from local banks and suppliers. This law solves partly the problem regarding collateral. It is much easier for a farmer to provide future agricultural products, which have a certain market value,

than farmland as collateral. However, it must be kept in mind, that small quantities are produced and therefore profitability is relatively low.

There are also at least two problems with this regulation. According to the Law (Art. 26), if on the day of maturity of creditor's claim that is secured by the pledge on future agricultural products such agricultural products are not existing on the production site, the pledgee acquires, *ex lege*, a statutory pledge on all agricultural products owned by the pledger and produced at the production site, regardless of culture and sort, in the quantity sufficient for the settlement of creditor's receivables. Another problem lies in the lack of market access. Without market access farmers will have not sufficient revenues to repay their debts, leading to the loss of the harvest due to debt settlement or the sale of farmland or other fixed assets.

Moreover, another factor, often ignored in practice, is the fact that some farmers in southwest Serbia avoid interest-based financing due to religious reasons, which again leads to additional challenges for those farmers.

We believe financial products in agriculture must be linked to the production process, i.e. there should be a permanent connection between the real and the financial sector, so every financial contract will cause an increase in agricultural production (Bećirović, 2011). This is the case, for example, with leasing contracts. According to the estimates of the Association of Leasing Companies in Serbia for the year 2013, around 50% of purchases of new combine and approximately 40% of acquisitions of tractors were financed by leasing (Radović, 2013). Leasing contracts have many advantages for farmers, such as avoiding taking over a huge debt, modernization of equipment and no guarantee costs. Another advantage is that farmers will receive the object immediately and paid rents can be adapted according to the generated farmer income of the farmer.

There is also the possibility to purchase assets directly from the manufacturer or from a specialized trader on deferred payment. A sale on deferred payment is beneficial for traders and manufacturers, because it provides additional income for them and sellers can adapt prices according to the crediting period, so their profitability and liquidity will not suffer due to the deferred payment. The major advantage is that these financing contracts can be easily administered, a factor that minimizes both risk and cost from a financial institution's viewpoint (Elharika, 2003).

The discrepancy of revenues and expenditures in agriculture must be considered in the development of appropriate financial instruments. This problem can be solved through the sale of agricultural production through prepayment. In this case, a particular object with an agreed specification will be delivered in the future and the agreed full price must be paid in advance at the time of concluding the contract.

Prepayment has advantages for the buyer and the seller. It protects the farmer from price fluctuations, because the price is paid in advance. On the other hand, the buyer knows exactly how much the underlying transaction will cost, and the quantity of the products that will be delivered on maturity date. Furthermore, because the buyer pays

in advance for the product, the agreed price should be lower than in a spot transaction. Depending on the price development, the buyer can have a profit from this transaction. Potential buyers, who would be willing to carry out such contracts, could be the Serbian Directorate for Commodity Reserves that would purchase agricultural products for their needs. It is also possible that agricultural cooperatives purchase in this way agricultural products from small farmers. Moreover, agricultural products can be bought by an investment fund.

According to theory, asymmetric information is one of the major reasons for inadequate supply of farm loans by conventional banks, because it is too costly to collect information on and monitor scattered potential agricultural borrowers (Elharika, 2003). But asymmetric information is not only a problem for financial institutions, but also for farmers. Farmers often avoid classical loans and prefer moneylenders' due to a complicated crediting process and legal procedures, high interest rates and the need for collateral and a guarantor (Al-Harran et al., 1996). To increase the client base of financial institutions it is necessary that financial contracts are easy to understand and the procedure should be clear to all stakeholders.

It is important to mention that if fundamental problems in agriculture are not resolved and governments force banks to offer a certain amount of loans to agriculture, this will only lead to high default rates and to unsustainable financing of agriculture. It is also necessary to pay attention to efficient credit decision making and loan administration to ensure that loans are repaid in full and in time, so unproductive farmers should not receive loans, and therefore not waste taxpayers' money.

Conclusions

There is lots of potential for agribusiness in southwest Serbia. The region has significant agricultural resources and is well-known for organic dairy and meat products in whole Serbia and far beyond. To use this agricultural potential efficiently, the authors have identified and analyzed the challenges faced by farmers using qualitative research method. As is the case with much qualitative research, the results are not generalizable in the statistical sense, but the ambition was to increase understanding of how farmers perceive and deal with the challenges at starting an agribusiness in the hilly-mountainous regions of southwest Serbia.

To master these challenges, an integral approach to development is necessary, which must include farmers, state authorities and investors. State authorities play a key role in solving infrastructural problems, developing a new fiscal policy, including a new tax policy regarding non-utilized agricultural land and subsidies, and supporting farmers and cooperatives with professional knowledge.

However, the key for agricultural development are agricultural holdings, especially modern cooperatives, where active farmers, land owners and investors will contribute their knowledge and capital. By a process of concentration, cooperatives should cultivate sizable portions of agricultural land. A special characteristic for southwest

Serbia is that this region has big diaspora, ready to invest money in their homeland. By having larger agricultural holdings, the current subsidies in agriculture will have a full effect, especially due to the mutual dependence between market access and finance.

This process of concentration will increase production quantities, which will again increase profitability by providing high-quality food for wealthy consumers and attract investors to raise the necessary funds to finance modern equipment and a professional management. Profitable agricultural holdings and cooperatives will increase motivation for the state to increase investments in infrastructure, which will facilitate the opening of factories for the processing of agricultural products. The resulted increased welfare will increase the willingness of citizens to live in rural areas.

References

1. Al-Harran, S., Zakaria, M., Khalid, H. (1996). *Islamska strategija marketinga - iskorjenjivanje siromaštva u ruralnim područjima Malezije*. El-Kalem, Sarajevo, Bosnia and Herzegovina.
2. Bećirović, S. (2011). *The Role of Microfinance in the Agricultural Development of the Cross-Border Region of Sandzak*. Proceedings from the international conference "SMEPP 2011", pp. 259-269.
3. Berglund, H. (2007). *Researching entrepreneurship as lived experience*, in: Neergaard, H., Ulhøi, J. P. (ed.) *Handbook of qualitative research methods in entrepreneurship*. Edward Elgar Publishing, Cheltenham, UK & Northampton, USA.
4. *Decision on determining the zones and best-equipped zones in Novi Pazar* (Odluka o određivanju zona i najopremljenije zone u gradu Novom Pazaru), Official Gazette of the City of Novi Pazar, No. 9/2015.
5. *Decision on the determination of average prices for square meters of real estate for determining property tax for 2017 on the territory of the city of Novi Pazar* (Odluka o utvrđivanju prosečnih cena kvadratnog metra nepokretnosti za utvrđivanje poreza na imovinu za 2017. godinu na teritoriji grada Novog Pazara), Official Gazette of the City of Novi Pazar, No. 11/2016.
6. Elharika, A. B. (2003). *On the Experience of Islamic Agricultural Finance in Sudan: Challenges and Sustainability*. Islamic Development Bank, Jeddah, Saudi-Arabia.
7. European Commission - EC (2016). European Union: *Trade in goods with Serbia* (available at: http://trade.ec.europa.eu/doclib/docs/2008/august/tradoc_140028.pdf).
8. Fernandez, J. R., (2016). *Mondragon 1956-2016*. Mondragon Corporation, Mondragon, Spain (available at: <http://www.mondragon-corporation.com/wp-content/themes/mondragon/docs/HISTORY-MONDRAGON.pdf>).
9. *Law on financing and securing the funding of agricultural production*, Official

- Gazette of the Republic of Serbia, No. 128/2014.
10. *Law on incentives in agriculture and rural development*, Official Gazette of the Republic of Serbia, Nos.10/2013, 142/2014, 103/2015 and 101/2016.
 11. Ministry of Agriculture, Forestry and Water Management - MAFWM. (2016, April 08). *Potpisani Ugovori o subvencionisanim kreditima – kamate najniže do sada* (available at: <http://www.mpzss.gov.rs/potpisani-ugovori-o-subvencionisanim-kreditima-kamate-najnize-do-sada/>).
 12. Mulić-Softić, S. (2015, February 21). *Učiteljica putuje na vrh planine zbog jednog učenika*. Al Jazeera Balkans (available at: <http://balkans.aljazeera.net/vijesti/uciteljica-putuje-na-vrh-planine-zbog-jednog-ucenika>).
 13. National Bank of Serbia - NBS. (2016). Exchange rate list, No. 253, December 31, (available at: https://www.nbs.rs/export/sites/default/internet/english/scripts/kl_srednji.html).
 14. Praća, N., Paspalj, M., Paspalj, D. (2017): *Ekonomska analiza uticaja savremene poljoprivrede na održivi razvoj*, Oditor, Vol. 3, No. 1, pp. 37-51.
 15. *Property Tax Law*, Official Gazette of the Republic of Serbia, Nos. 26/01, 45/02, Official Gazette of the FRY, No. 42/02, Official Gazette of the Republic of Serbia, Nos. 80/02, 135/04, 61/07, 5/09, 101/10, 24/11, 78/11, 57/12 - US, 47/13, 68/14.
 16. Radović, G. (2013). *Finansiranje poljoprivrede u Republici Srbiji: iskustvo i mogućnosti*. Ekonomija – Teorija i praksa, 8(4), pp. 13-27.
 17. Ševarlić, M. A. (2012). *Poljoprivredno zemljište*. Republički zavod za statistiku, Beograd, Srbija.
 18. Statistical Office of the Republic of Serbia and World Bank. (2016). *Mapa siromaštva u Srbiji* (available at <http://webrzs.stat.gov.rs/WebSite/userFiles/file/Aktuelnosti/Dogadjaji/Mapa-siromastva-u-Srbiji.pdf>).
 19. Statistical Office of the Republic of Serbia - SORS. (2013a). *Census of Agriculture 2012 – Agriculture in the Republic of Serbia*. Book 1. Belgrade, Serbia.
 20. Statistical Office of the Republic of Serbia (2016a). *Opštine i regioni u Republici Srbiji*. Beograd, Srbija.
 21. Statistical Office of the Republic of Serbia - SORS. (2007). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
 22. Statistical Office of the Republic of Serbia - SORS. (2008). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
 23. Statistical Office of the Republic of Serbia - SORS. (2009). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
 24. Statistical Office of the Republic of Serbia - SORS. (2010). *Statistical Yearbook of Serbia*. Belgrade, Serbia.

25. Statistical Office of the Republic of Serbia - SORS. (2011). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
26. Statistical Office of the Republic of Serbia - SORS. (2012). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
27. Statistical Office of the Republic of Serbia - SORS. (2013b). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
28. Statistical Office of the Republic of Serbia - SORS. (2014). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
29. Statistical Office of the Republic of Serbia - SORS. (2015). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
30. Statistical Office of the Republic of Serbia - SORS. (2016b). *Statistical Yearbook of Serbia*. Belgrade, Serbia.
31. Telegraf. (2017, January 17). *Najmlađi heroji Srbije: Nemanja i Milica svakog dana do škole na konju idu 16 kilometara. I nemaju nijedan izostanak!* (available at: <http://www.telegraf.rs/vesti/2590247-najmladji-heroji-srbije-nemanja-i-milica-svakog-dana-do-skole-na-konju-idu-16-kilometara-i-nemaju-nijedan-izostanak-video>).
32. World Bank. (2017a). *Agriculture, value added (% of GDP)*. (available at: <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=RS>).
33. World Bank. (2017b). *Employment in agriculture (% of total employment) in Serbia*. (available at: <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=RS>).

IZAZOVI POKRETANJA AGROBIZNISA U BRDSKO-PLANINSKIM PREDELIMA JUGOZAPADNE SRBIJE

Suad Bećirović⁵, Šemsudin Plojović⁶, Enis Ujkanović⁷ i Senadin Plojović⁸

Sažetak

Da bi se identifikovali izazovi sa kojim se susreću potencijalni preduzetnici u agrobiznisu, sprovedeno je empirijsko istraživanje korišćenjem nestrukturiranog intervjua sa 113 poljoprivrednika iz opština Novi Pazar, Raška, Sjenica, Tutin, Nova Varoš, Prijepolje, Priboj i Ivanjica. Dobijeni odgovori su klasifikovani u pet grupa: infrastrukturni uslovi, pristup javnim uslugama, ukрупnjavanje poseda, pristup tržištu i dostupnost izvora finansiranja. Da bi se rešili ovi problemi autori, između ostalog, predlažu investicije u infrastrukturu, promenu načina oporezivanja poljoprivrednog zemljišta i kreiranje novih finansijskih instrumenata prema potrebama poljoprivrednika i lokalnim specifičnostima. Uloga modernih zadruga, u koje će aktivni poljoprivrednici, vlasnici zemlje i investitori uložiti svoje znanje i kapital, je posebno istaknuta od strane autora.

Ključne reči: *agrobiznis, porez na zemljište, kooperative, planinsko područje, jugozapadna Srbija.*

5 Redovni profesor dr Suad Bećirović, Internacionalni univerzitet u Novom Pazaru, Ul. Dimitrija Tucovića bb, 36300 Novi Pazar, Srbija, Telefon: +381 20 33 11 60, E-mail: s.becirovic@uninp.edu.rs

6 Redovni profesor dr Šemsudin Plojović, Internacionalni univerzitet u Novom Pazaru, Ul. Dimitrija Tucovića bb, 36300 Novi Pazar, Srbija, Telefon: +381 20 33 11 60, E-mail: s.plojovic@uninp.edu.rs

7 Vanredni profesor dr Enis Ujkanović, Internacionalni univerzitet u Novom Pazaru, Ul. Dimitrija Tucovića bb, 36300 Novi Pazar, Srbija, Telefon: +381 20 33 11 60, E-mail: e.ujkanovic@uninp.edu.rs

8 Senadin Plojović, student doktorskih studija, Tehnički fakultet "Mihajlo Pupin", Ul. Đure Đakovića bb, 23101 Zrenjanin, Srbija, Telefon: +381 20 39 07 00, E-mail: senadinplojovic@gmail.com

CONTENT

1. Adriana Radosavac, Desimir Knežević
**ECONOMIC IMPORTANCE OF USE
OF PESTICIDES IN WHEAT PRODUCTION1323**
2. Berhe Gebregewergs, Muuz Hadush
**DOES CLIMATE CHANGE AFFECT PRICE OF VEGETABLES:
EVIDENCE FROM TIGRAI, NORTHERN MOST ETHIOPIA. . . .1335**
3. Grujica Vico, Aleksandra Govedarica-Lučić, Zoran Rajić, Radomir Bodirola,
Ivan Mičić, Silvija Zec Sambol, Marija Mičić
**MULTI ATTRIBUTE ASSESSMENT APPROACH
IN VEGETABLE PRODUCTION1355**
4. Igor Trandafilović, Vesna Conić, Aleksandra Blagojević
**IMPACT OF DEMOGRAPHIC FACTORS ON
ENVIRONMENTALLY CONSCIOUS PURCHASE BEHAVIOUR. . .1365**
5. Imre Milán Harcsa
**STUDY ON THE POTENTIAL OF SUBCONTRACT
PALINKA DISTILLATION1379**
6. Jelena Andrašić, Vera Mirović, Nada Milenković, Branimir Kalaš, Miloš Pjanić
**IMPACT OF TAKEOVER PROCESS ON EMPLOYEES -
EVIDENCE FROM FOOD, RETAIL AND FINANCIAL SECTOR. . .1393**
7. Jelena Birovljev, Danilo Đokić, Bojan Matkovski, Žana Kleut
**ECONOMIC PERFORMANCES OF AGRICULTURE
OF CEFTA AND FORMER CEFTA COUNTRIES1413**
8. Jelena Marković, Svetlana Stevović
**SUSTAINABILITY OF CHEMICAL SOIL QUALITY
IN SOUTHERN MORAVA RIVER VALLEY
IN CORELLATION WITH THE FLOODING1425**

9. Mile Peševski, Zoran Milovančević
**THE CHANGES IN THE USAGE OF AGRICULTURAL LAND
 IN EASTERN REGION OF REPUBLIC OF MACEDONIA
 BETWEEN 1991 - 20301437**

10. Odjuvwuederhie Emmanuel Inoni, 'Oraye Dicta Ogisi, Felix Odemero Achoja
**PROFITABILITY AND TECHNICAL EFFICIENCY IN HOMESTEAD
 CATFISH PRODUCTION IN DELTA STATE, NIGERIA1449**

11. Olja Munitlak - Ivanović, Jovan Zubović, Petar Mitić
**RELATIONSHIP BETWEEN SUSTAINABLE DEVELOPMENT AND
 GREEN ECONOMY - EMPHASIS ON GREEN FINANCE
 AND BANKING1467**

12. Petar Munćan, Dragica Božić
**FARM SIZE AS A FACTOR OF EMPLOYMENT AND INCOME
 OF MEMBERS OF FAMILY FARMS1483**

13. Rade Popović, Mira Kovljenić
**EFFICIENCY OF WHEAT PRODUCTION ON FARMS
 IN THE REPUBLIC OF SERBIA1499**

14. Radovan Damnjanović, Snežana Krstić, Milena Knežević, Svetislav Stanković,
 Dejan Jeremić
**THE DISCRIMINANT ANALYSIS APPLIED TO THE
 DIFFERENTIATION OF SOIL TYPES1513**

15. Slavica Otović, Dunja Demirović, Kristina Košić, Aleksandra Vujko
**FOSTERING ENTERPRENUERSHIP AT HIGH SCHOOLS:
 A CASE OF RURAL AREAS IN VOJVODINA (SERBIA).1523**

16. Vladimir Ilić, Ivan Bauer, Anastazija Tanja Đelić, Aleksandar Nešković
**INSTITUTIONAL SUPPORT FOR STRENGTHENING
 ENTREPRENEURSHIP IN AGRICULTURAL PRODUCTION
 OF THE REPUBLIC OF SERBIA1537**

17. Boro Krstić, Zorica Vasiljević, Miroslav Nedeljковиć
**INSURANCE CONTRACT AS THE BASIS FOR THE SAFETY OF
 AGRICULTURAL PRODUCERS IN THE REPUBLIC OF SRPSKA . .1555**

18. Dejan Sekulić, Aleksandar Petrović, Vladimir Dimitrijević
**WHO ARE WINE TOURISTS? AN EMPIRICAL INVESTIGATION
 OF SEGMENTS IN SERBIAN WINE TOURISM1571**

19. Milan Beslać, Ćorić Goran
**FINANCIAL AND PRODUCTION ASPECTS OF GENETICALLY
MODIFIED ORGANISMS1583**

20. Mlađan Maksimović, Darjan Karabašević, Miodrag Brzaković, Pavle Brzaković
**THE EFFECTS RESULTING FROM THE APPLICATION OF THE
CONCEPT OF THE SUSTAINABLE DEVELOPMENT OF RURAL
TOURISM ON STARA PLANINA1595**

21. Vesna Popović, Predrag Vuković, Milivoje Ćosić
**FOOD SAFETY AND QUALITY POLICY
IN THE REPUBLIC OF SERBIA1607**

22. Radovan Pejanović, Danica Glavaš-Trbić, Mirela Tomaš-Simin
**PROBLEMS OF AGRICULTURAL AND RURAL DEVELOPMENT IN
SERBIA AND NECESSITY OF NEW AGRICULTURAL POLICY. . . .1619**

23. Saša Marković, Slavoljub Vujović, Aleksandar Damnjanović
**MARKETING AND HIGHER EDUCATION -
CONDITION IN SERBIA.1635**

24. Semir Vehapi, Marina Milanović
**THE EFFECT OF MARKET ORIENTATION ON BUSINESS
PERFORMANCE OF SERBIAN ORGANIC PRODUCERS1651**

25. Suad Bećirović, Šemsudin Plojović, Enis Ujkanović, Senadin Plojović
**CHALLENGES AT STARTING AN AGRIBUSINESS IN THE HILLY -
MOUNTAINOUS REGIONS OF SOUTHWEST SERBIA.1669**

26. Vladimir Zakić, Vlado Kovačević, Jelena Damnjanović
**SIGNIFICANCE OF FINACIAL LITERACY FOR
THE AGRICULTURAL HOLDINGS IN SERBIA1687**

27. Željko Bjelajac, Marijana Dukić Mijatović, Željko Vojinović
**PROTECTION OF LAND IN THE REPUBLIC OF SERBIA
AND ECOLOGICAL SECURITY WITH REGARD
TO STRATEGIC AND LEGAL FRAMEWORKS1703**