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Regional Agricultural Competitiveness Analysis of 15 Serbian Municipalities

Executive Summary

SEEDEV

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I. Executive summary

I.1. Agriculture

During the last few years Serbian society witnessed a small agricultural revolution. In fact – several small revolutions. First of all, food price went up and that automatically gave this occupation a new lease on life – agriculture became a profitable business and land price went up dramatically. The elderly farm holders started selling their land to other local farmers, who borrowed money from banks to buy the land. This resulted in the creation of agriculture loan market and today in Vojvodina 23000 farmers cultivates 80% of the land, while in central Serbia 155000 farmers are cultivating the same, 80%.

Secondly, there's been in change in consumer behavior. Consumers are more concerned with how healthy the food they buy is, and with its quality. Besides, a traditional „middle consumer" is slowly disappearing, and is being replaced by either a consumer who buys the cheapest or the one who buys the most expensive product. That, in turn, differentiates producers as well – those who focus on competitive prices and those who add value to their products trying to be competitive through high quality.

Thirdly, effects of climate change have contributed towards creation of new technologies, i.e. new food production techniques and new products adapted to new circumstances.

The first lesson for Serbia is: this could be a big chance for agriculture, but only if newly established circumstances are taken into account. In other words, the chance is there, if Serbia identifies opportunities in this new situation and use them to become more competitive. First in the region – in CEFTA and EU countries, because Serbia borders on both – then in the rest of Europe, especially in Russia, and eventually throughout the world. That is why state administration as well as local and regional authorities must constantly question their strengths and weaknesses, in order to identify local characteristics which could be turned into competitive advantages on global market.

I.2. Why this Study?

The reason for Competitiveness Analysis of the 4 Project Regions and 15 Municipalities was to help market participants, regardless of whether they come from the municipality or intend to invest in the municipality, to:

- Fully understand trends and changes taking place in the region, which would help them with making adequate long-term business decisions and business climate;
- Understand where they stand in relation to other participants at the market;
- Identify investment opportunities;

Results of this Analysis should help policy makers to:

- Better understand trends and changes taking place in the region, as this will enable them to make better policies and create better business environment;
- Compare their own work with good practice examples of how to attract investments and create profitable business environment in agriculture;
- Come up with new ideas of how to highlight their prospects in agriculture production and food industry;
- Improve promotion of their opportunities;

I.3. Competitiveness

Competitiveness is the backbone of modern times. It is the first and the most important feature of modern economy and it has never been greater: it exists between individuals, companies, countries, groups of countries, etc. The integration processes are spread globally. While only 2-3 decades ago not only certain countries (the biggest ones, such as China, India, Brazil), but the whole continents, were practically isolated from the global market, today literally everyone is participating in this game. Globalization is everywhere and is unstoppable.

Business competitiveness usually means competing for the same buyer. However, competition does not have to be only between business partners, nor only for a buyer. Municipalities, regions and countries must all take care of their economic and social development, and are often competing who will attract those who can make such development possible. Investments are what most compete for these days – be they local, regional or foreign. This is why they all prepare programs and adopt measures which would attract investment capital. They compete with each other by trying to be more competitive.

Competitiveness is difficult to measure and changeable category. Particularly in agriculture. It depends on many factors, and what we often see is that a change of one aspect can create a change of the entire activity. That factor can be directly linked to production (e.g. weather, input cost) or can have nothing to do with agricultural environment (e.g. Dinar exchange rate, customs duties, and harvest in another country). Competitiveness also depends on the context in which it is studied, and on the angle from which it is observed. For example, Serbia can be the most competitive country in Europe for soy production, but when compared to USA, Brazil or Argentina, it can be one of the least competitive. It is not uncommon for discussions on competitiveness to focus on one factor only; usually, what's taken into account is the price, although being more competitive in quality is often more important than in the price.

Comparing and measuring competitiveness is not a reason *per se*. Knowing – whether you are an entrepreneur, company director or head of a municipality – what your weaknesses and strengths are in relation to competitors, can help you can make much better business decisions.

I.4. Methodology

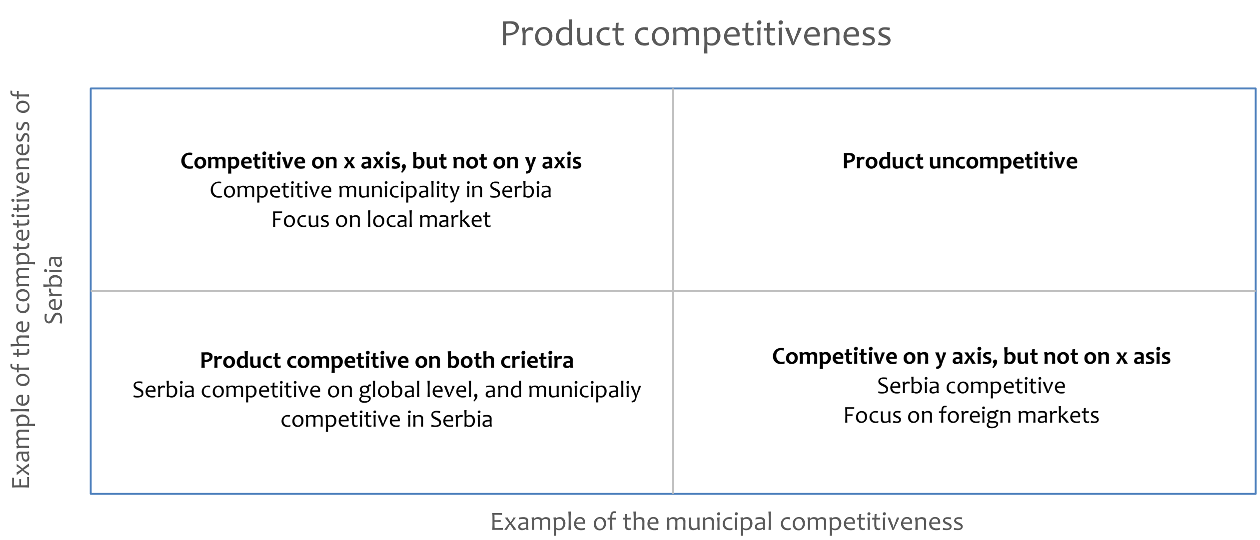
This study analyzed three groups of indicators which influence level of competitiveness and attractiveness for investors: existing resources, sector competitiveness and other competitive advantages.

Analysis of existing resources is based on all existing resources, but also on comparing them with those from other municipalities. All resources which were registered on the municipality level (such as land, human and capital resources) were taken into account.

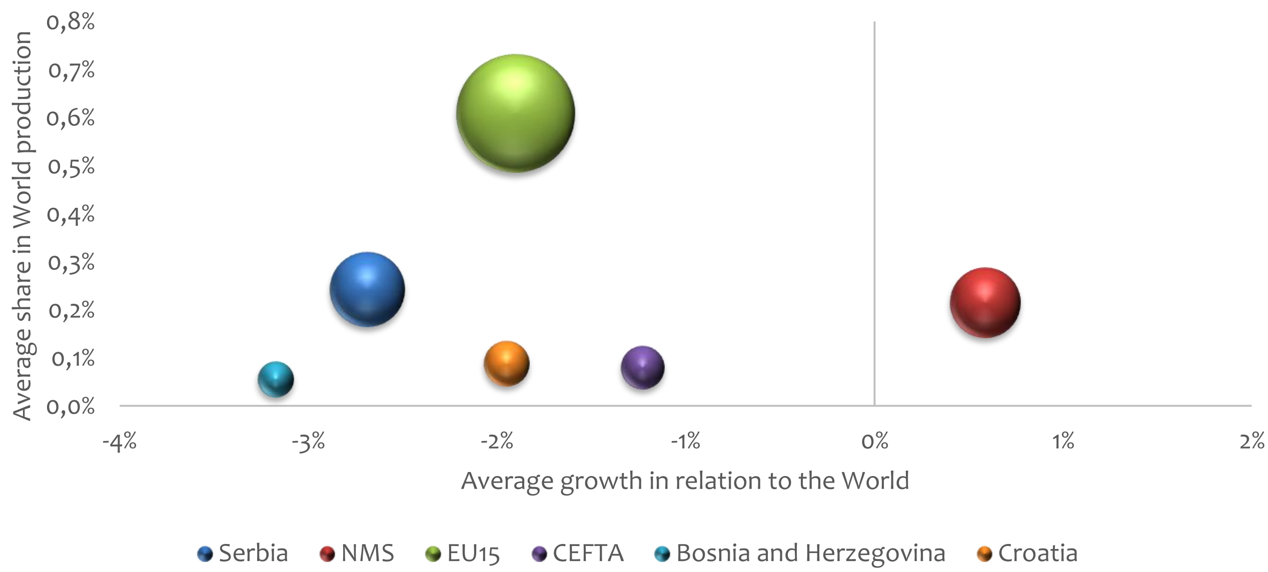
Sector analysis which represents the main part of the study covers 13 groups of products and 30 most important crops grown in Serbia. Product groups are: pome fruit, berries, nuts, stone fruits, grain, industrial crops, perishable vegetable, non-perishable vegetable, poultry, pork, beef, mutton and goat meat, and finally, milk.

Competitiveness of each municipality was measured by comparing it with other municipalities, while competitiveness of Serbia was measured by comparison with CEFTA countries (Croatia, Bosnia and Herzegovina, Albania, Montenegro, Macedonia and Moldavia), with EU countries and with the rest of the world. What were measured were shares (in production, production value and trade) and trends (in production, crop yield and trade). 15 criteria were used for competitiveness analysis, but for certain products, particularly meat products, additional criteria were used in order to get as realistic a picture as possible, so that these products can find a place in the market, both in their municipality and in Serbia. Products and groups of products were ranked and marked. Each criterion has a rank, which means that a product with the highest rank gets the highest mark, compared to other products. This enabled us to make a ranking list according to how competitive each product and each group of products in a municipality was. However, this method did not enable measuring the general level of competitiveness nor did it allow comparison of different production areas or of different municipalities. That's why a mark ranging from 1-5 was introduced, and the marks were not given randomly, but according to criteria set in advance. Based on the average mark of each of the products, a unique value was calculated which would determine competitiveness level of each of the products in relation to other products in the same category. Finally, there will be a graphic demonstration of different ranks, as well as marks, so that the product competitiveness is easily spotted.

Graph 1: Competitiveness graph description



Graph 2: Explanation of "bubbles" graphs



In the graph, the bubble size represents average agricultural production of a country in a given period. Position of the bubble in relation to X-axis indicates deviation of average production growth rate in relation to average global growth rate. Position of the bubble in *relation to Y-axis demonstrates average contribution of agricultural production of a country in total global production.*

Other competitiveness advantages are those which are not based on certain resources, or with the municipality being particularly good at something, but are a result of something which is very difficult to measure, but which can often be the most important factor in some business decisions. This, for example, can be a particularly hard-working individual, or a particularly effective agency, good local administration, existence of a big food processor in the area, etc. We found out about these competitive advantages during interviews and workshops, which is why they play such an important role in this Analysis.

The most recent statistical information available at the time was used in this Analysis, as well as different strategic documents and studies, combined with other information sources (local and national registries and information databases); structured interviews were carried out with selected individuals, verification workshops organized and particularly interesting case studies analyzed. All the graphs in the Study, from which some are displayed here, are representing a time span of 7 years (2007-2013) if not specified differently. Some graphs miss the data for year 2013, since that particular information wasn't available until the end of the Analysis.

After field research was completed and existing data and workshop analysis for each of the 15 municipalizes put together, a Study addressing the following themes was published:

- Expected trends in agriculture
- Competitiveness of Serbia
- Competitiveness of the project region
- Competitiveness of the municipality
- How to attract investors – here two themes in particular were addressed:
  - The role of municipality in creation of agricultural business environment
  - The role of municipality in attracting agricultural investments

I.5. Expected trends in agriculture

The world has become a global village. Processes and changes in one part of the world now don't have exclusively effect on local circumstances, but also on places and processes which are in no way connected to that part of the world.

On the other hand, **Serbia is becoming increasingly integrated**, so regardless of how much the country as a whole, or a certain region or a particular municipality may be specific, it is impossible for its agricultural production, trade and prices to be unaffected by the global and regional trends. We see that today, changes happen faster ever before. Standards, consumer requirements, consumer perceptions, investor needs and production technologies change almost every year. Since people adjust to changes and since it is the people who make changes happen in the first place, it is important that farmers, and even every citizen, try to:

- Be fully aware of the changes taking place, as these could affect their business and consumer decisions;
- Makes changes based on their understanding of the region and current trends;

The Study addresses basic trends on the global level, in the new member states, in the CEFTA region and in Serbia.

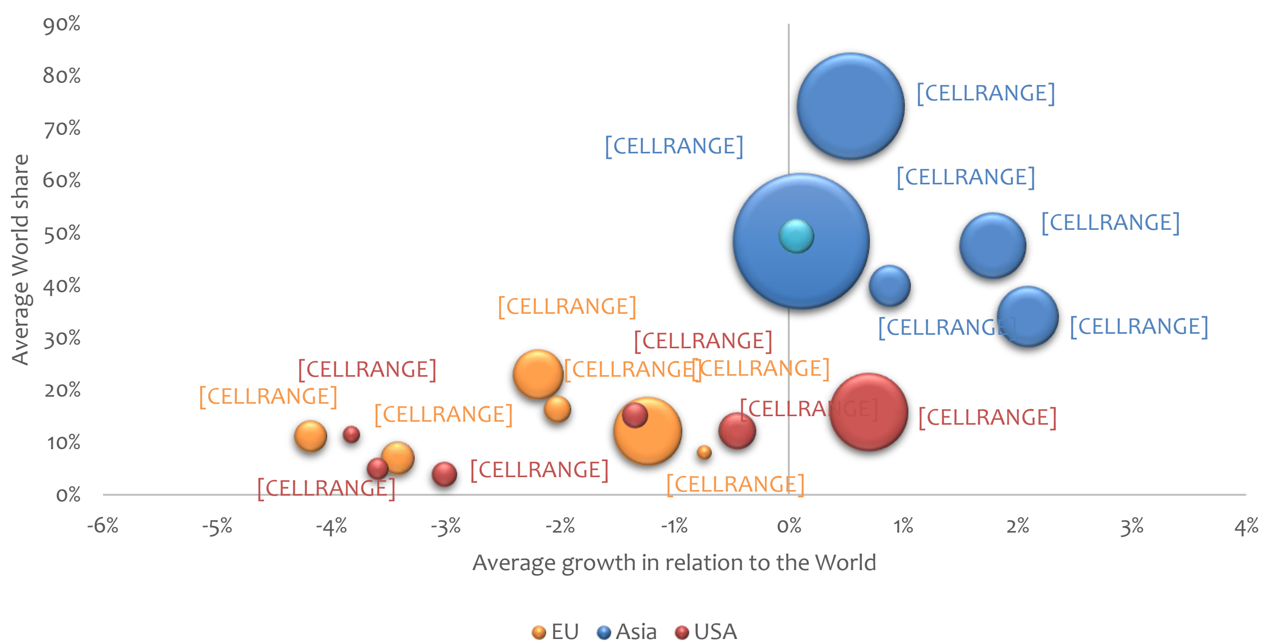
Global trends

Global competitiveness distribution. We live in a global world and in such environment real competitiveness advantages of countries in specific areas of production are becoming more and more obvious. However, there are reasons why food will continue to be produced throughout the world, the most important of which are:

- Distribution of competitiveness among states does not entirely correspond to relation between certain producers (it doesn't mean that the worst Dutch producer is better than a good producer from Serbia);
- More competitive countries can never produce everything;
- There is considerable production for own consumption which does not include personal work in the product price;
- Lower expectations of producers from less competitive countries;
- Preference for local markets and local products;

In this distribution of competitiveness, Asia is faring better than the rest of the world, especially Europe. In fact, Europe is giving up price competitiveness and is turning to quality competitiveness.

Graph 3: EU, Asia and USA production trend, share and size of in relation to global average production growth (2001-2013)



Of all studied groups of products, Asia contributes the most in the global production .Besides, production growth is faster than global average, except for grain production in the USA.

Continuous shrinking of agricultural and rural population. Agricultural population throughout the world and in the EU has shrunk considerably. This inevitable trend, which started by establishment of the first city, will continue in the future.

Intensified production increase. One of the main reasons behind the depopulation of rural areas is the increase in agricultural production, which shows that there can be no development at the cost of the production efficiency. Engaging as many people as possible on a small land plot leads to inefficiency and uneconomical production. That's why, in case of a restricted land resource, it is necessary to focus on:

- High quality production in small areas;
- Adding value to products through processing or other activates, which do not require substantial land resources;

Climate change. There are many views on the importance and level, and even the very existence of climate change. However, whether someone believes in climate change or not, is becoming less and less important, because both agriculture and farming methods are slowly adapting to climate change. During the last century, total increase of average annual temperature in Serbia, caused by climate change, was 0.6°C which doesn't seem to be a lot. However, it is evident that agriculture has been affected, and that is why it is so important for farmers to prepare adaptation measures which would help them address these changes.

Global financial crisis has lasted longer than expected. Global financial crisis affected the agriculture mainly through, (1) drop in demand, and (2) drop in investments. Farmers, as well as agricultural policy creators on all levels, can expect similar challenges in the future, and they must be ready to apply adaptation measures.

High and varying prices. Increase and variation of food price has been the biggest change in agriculture in the last several decades. That's what to a large extent changed the structure of both production and producers (i.e. farms and farmers), affected the size and direction of trade, affected the food security, but also considerably increased income of farmers, as well as the resource and input cost. Perhaps the biggest change which the increase in food price had created was the new way of thinking on the importance of agriculture. As a result, many people, who never saw their future in this sector, started investing in it.

Change in consumer behavior. Agricultural producers have to increasingly adjust to consumer behavior which is constantly changing. Some of the basic changes are:

- Consumer is increasingly concerned with food safety;
- There is a noticeable split between consumers who buy the cheapest and those who buy the most expensive produce;
- A changed attitude regarding food quality is one of the main trends of modern food market. While food safety is not to be compromised, certain characteristics, such as appearance, taste, nutritional value, geographic origin, production process (organic or not), fair trade etc., are becoming more important.

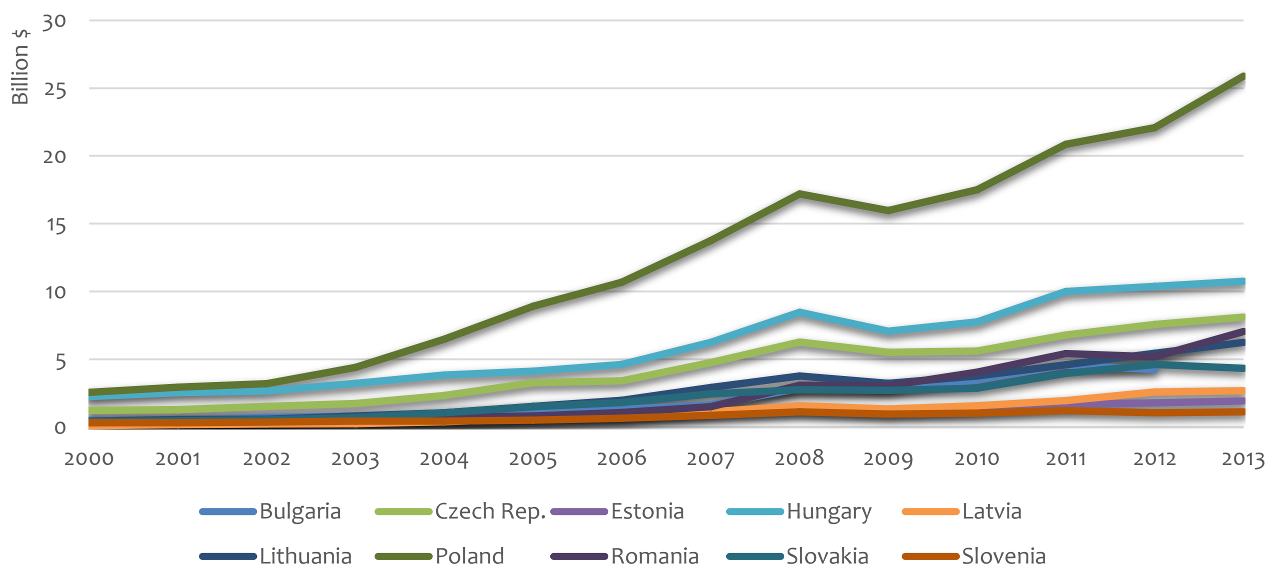
Trends in NMS

During the EU accession process, agriculture is a sector in which major adjustments will be needed. EU supports agriculture and farmers through special programmes. That's why it is impossible to observe trends and processes in NMS and CEFTA countries without paying special attention to, and analyzing achievements and opportunities of two EU agriculture support programmes: SAPARD (Special Accession Programme for Agriculture and Rural Development), and the other one, introduced in 2007, IPARD (Instrument for Pre-Accession Assistance for Rural Development). The main goal of these programmes is to contribute towards finding solutions to problems of structural adjustments in agriculture, in order to increase product competitiveness on the EU market, and improve quality of life in rural areas. At the same time, another important goal of SAPARD is to, through legal, administrative and institutional assistance, help future member states prepare for implementation of legal requirements of the EU (Acquis Communautaire) in the field of Common Agricultural Policy (CAP). Besides, efficient use of IPARD is important for successful adoption of CAP means.

However, despite the support of EU grants in the pre-accession period, and especially upon joining the EU, big changes in production and trade are taking place in both the pre- and post-join period. These trends are sometimes positive, but sometimes not, and it is important to be aware of them so that Serbia can make adequate strategies using these experiences.

Increase in agricultural trade. New member states have in the period of 4 years before accession to EU and 4 years after accession, on the average, increased agricultural product export for over 7 times. Average annual growth rate in the period of 2000-2004 was 20.2% and upon joining 2004-2008 it shot up to 28%. This means that process of market liberalization and becoming a part of the Common EU policy makes impressive export results a reality. The export growth, however, is not equal in all countries. Data shows that countries where agriculture is based on family farms advance faster and more successfully than those who want to build their future by developing companies and encouraging big land owners.

Graph 4: Export of agricultural products from new member states



Poland has by far the biggest agricultural produce export growth, which has been growing fast since joining the EU.

<u>Changes in production before and after accession to EU</u>. Of all the sectors, fruit production has decreased the most, and since 2000, the decrease was noted in 10 out of 12 new member states. The biggest increase was in the production of oil crops and that was mainly due to production increase in Lithuania where, compared to 2001 production grew over 14 times. Huge increase of total oil crops was noted in Slovenia (8 times), Lithuania (6 times), Estonia (3.3 times) and Bulgaria (2.6 times).

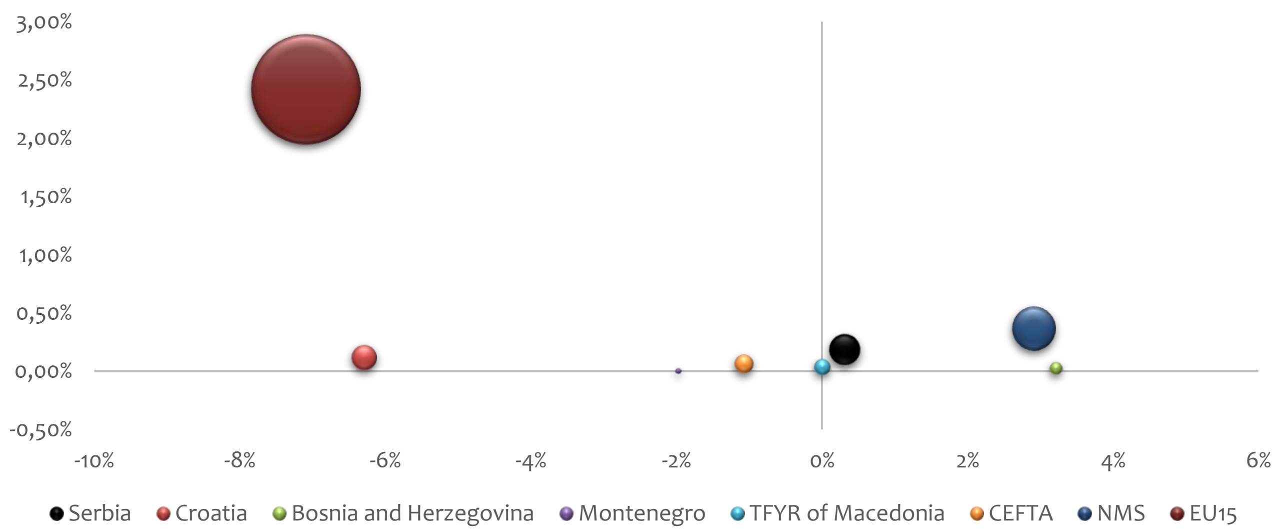
Trends in CEFTA countries

All countries in the region have decided to transform their economy and move from the socialist system to the capitalist one, using the western model, **which meant adopting numerous structural and legal reforms**. Another process was going on at the same time – a process of adjustment to the EU. Agriculture was part of these processes.

<u>Increased yield and production adjustment.</u> Despite the devastating effect of war on agriculture in Western Balkans, and despite our modest beginnings, we have achieved significant results. Production is being modernized, there are more and more farmers using modern farming methods on hundreds, and even thousands of hectares, yield has increased. Production structure is also changing, as it is adjusting to requirements of not only local and regional markets, but to global trends as well: in some areas it is growing, and in some shrinking. The main stimuli for production change are: (1) Liberalization of local customs tariff, which increased competition and made access to new technologies easier; (2) Having a preferential access to the EU and other world markets; (3) Development of market based on private initiative; (4) Adjustment to market laws; (5) Changes in the sales method – opening of supermarkets, wholesale stores, stock exchange...

Improved trade in the region. Countries of the Western Balkans have begun a process of liberalization through, (1) Stabilization agreement and joining the EU; (2) Signing bilateral and later CEFTA agreements with the countries in the region; (3) WTO agreement; (4) Numerous bilateral agreements. All this contributed to trade improvement and all the countries are experiencing an increase in exports. However, when compared with competitors, we see that:

Graph 5: Export trend, share and size in relation to global average export growth (world growth = 0)



Source: UN Comtrade

The biggest growth of agriculture produce export is in BiH: 3.2pp; followed by new member states with 2.9pp. Serbian export is growing faster than global export for 0.3pp, while EU15 is experiencing decrease of export of 7pp. Of the neighboring countries, only BiH has faster growth than Serbia and only in these two countries export is growing faster than the world average. Macedonia export growth is at the level of global average.

- Trade in agricultural products is slower in CEFTA countries than in NMS before joining the EU;
- Total export of all agricultural products from the Western Balkans countries, as well as export per surface unit, lags considerably behind the EU countries;
- Although it's small, the biggest growth of total export of agricultural products from 2007-2012 is taking place in BiH, and the smallest one in Croatia;

Depopulation of rural areas. Negative birthrate and shrinking population, especially in rural areas, is becoming one of the main features of rural Western Balkans. Actually, it is safe to assume that these trends will continue in the years to come.

Trends in Serbia

Farmers in Serbia (especially in Vojvodina) encouraged by good prices, opening-up of market and easier access to state land, have made a big change in the production process, preparing themselves for the forthcoming challenges such as, on the one hand, joining the EU, and on the other, expected lower food prices. However, despite all the achievements, our best farmers still lag behind the competitors in many aspects, such as: achieved income, achieved export per hectare, yield (especially vegetable, milk and meat), use of technology, percentage of products which are further processed, level of processing...Reasons for this lagging behind should be sought primarily in late and slow reforms and in compromising with their implementation, not only in agriculture, but in all segments of society.

Some of the general characteristics are:

Government messages are confusing and influence increasingly weak. Participants in the agricultural market chain are still not getting clear messages and signals they expect from the state. Agricultural policy is characterized by short-term ad-hoc measures, which makes it impossible to make timely plans and adaptations. Each of those actions, through redistribution (usually from the budget) of resources, only temporarily solves a particular problem, but in the long term this creates new problems and confuses market participants further. Besides these confusing messages, farmers also feel that they receive less government support compared to what their competitors receive, less from what it should be and less from what it used to be.

Agriculture is and it will continue to be based on family farms. Serbia, and particularly Vojvodina, has, in the last ten years, gone through a real, although quiet and small, agricultural revolution. Almost every village in Vojvodina has a few farmers who cultivate 200-300 hectares, and a couple of dozen of those who cultivate 50-100 hectares. Serbia, as is well-known, is a country (just like the old EU members, USA, Poland) which based its development on family farms, as the most successful form of agricultural development. Municipal policy makers should support farmers and agricultural enterprises (both those in private and government property). Actually, the biggest driving force for agricultural development should be sought in development of small family farms, both in the region and on the local level.

Dualism in farm structure will be more obvious –until it finally disappears. Market development leads to a gradual, but very evident division of farms on commercial and non-commercial ones. One group of farms – because it buys or rents land from non-commercial farmers, landowners or the government – gradually becomes bigger and bigger. It makes sense that the increase in the number of farmers who cultivate big farms, is at the expense of the other group. This kind of arrangement is not unusual for countries in transition, but for Serbia it is typical that small, non-commercial farms do not actually have another option, and therefore remain imprisoned within such arrangements, which eventually leads many to bankruptcy.

Big demand for land is slowing down. It is evident that in the last ten years, the land market in Serbia has been developing faster than in the previous five decades. Vojvodina has a very developed land-rent system, but the purchase/sale market is insufficiently developed. Central Serbia has a considerable land offer, but low demand for agricultural land which is distant from urban areas. In any case, the land market has experienced considerable change, especially since 2008. Price of agricultural land in Vojvodina has gone up several times due to increased demand, mainly by farmers, but also from those who are not farmers. The reason for increased demand is the result of the profit increase, which came about due to the price increase in agricultural products. However, after the big drought of 2012 and the big drop in agricultural product price in 2013, price of land started dropping. This trend is likely to continue which means that in the future we should not expect land prices to reach the levels they had in 2007-2008 and 2010-2012.

Liberalization brings changes in production and price structure. Liberalization will create a more competitive environment, and better allocation of resources, but will cause numerous structural changes. Competitiveness of Serbian products will determine if there will be import and from where. At the moment, due to numerous trade agreements, Serbia has a rather complicating customs structure so the trade will to a large extent be influenced by relation between those agreements. Special attention should be paid to sectors which will be most affected by liberalization, such as vegetable and pork farming.

Export market gains in importance. Ever since 2002, Serbia has had considerable success in agricultural products trade: both import and export have been rising constantly ever since. Since 2005 Serbia has had a surplus. However, Serbia mainly exports primary products. In 2011, primary agricultural products (such as fruit, vegetable, grains) represented over 40% of total export. That's the main reason why Serbia doesn't have better export results per hectare. Export can be considerably increased and reach several thousand $ per hectare only if investments in food processing capacity are increased.

Some of the main characteristics and trends in production are:

Grains are dominating in production. Serbia should increase grain production, but should be aware that possibility of achieving additional profit in that sector is rather limited. In Serbia, of total production, most goes to grains, over 34%, compared to about 11% in EU countries.

Improved oil crops production. Production and export of oil crops (soy, sunflower, rape and sugar beet) has grown in Serbia, and in the last five years this has been caused primarily by good prices since 2008. However, this growth has been slower than in the countries which are main oil crops producers globally, and it has also been slower than in NMS.

Stagnation trends in meat production and negative trends in meat processing. Serbia produces about 80 thousand tons of beef, 250 thousand tons of pork, about 23 thousand tons of mutton and slightly over 100 thousand tons of chicken. The biggest decrease in production has been with pork, and the biggest increase with chicken. Generally it can be said that Serbia has a steady production with visible oscillations in certain years. Overall, the sector is not ready for competing with European and global markets, because it does not have health- and quality-category certificates. Additionally, very few slaughter houses meet the requirements for meat export that the EU market requests. Among the 930 registered businesses, there are just a few structures for slaughter, cutting and processing of meat registered for export to EU (12) and to third countries (96).

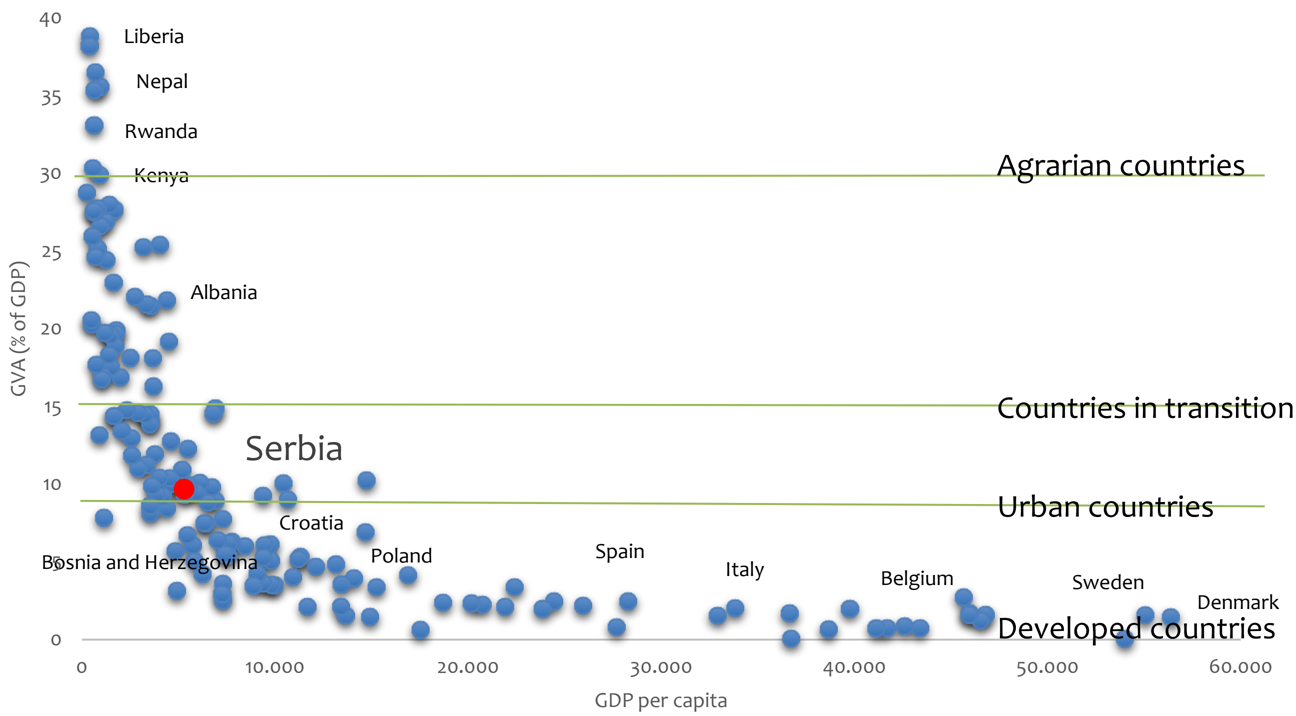
Dairy farms will have to go through a painful process of EU standards adjustments. This is one of the sectors with the highest value of primary production - over 500 million Euros annually. Serbia has considerable capacities for dairy production, but both production and processing are largely extensive and do not meet the EU standards. As much as 40% of milk in Serbia is sold "from home" which means it's not covered by legal acts. There are over 200 dairy farms in Serbia. Most of them are small dairies, while only 10% are big industrial dairy farms. However, despite the big number of small dairy farms, they process only 13% of the milk. At the same time, big industrial dairy farms have 67% of all processing capacity. This clearly shows that dairy farming is about to go through a very tough period of EU standards adjustment.

Fruit production is below, and vegetable production above the global average. Overall, fruit production in Serbia is growing, particularly production of apple, raspberry and cherry, and occasionally of other pome fruits (peach, nectarine and apricot). However, total fruit production in Serbia is growing slower compared to global average, i.e. by 7.2%. Production in NMS is growing faster than the global average by 6%. At the moment, the biggest production growth in Serbia compared to global production, is with raspberries (17% points), while pear and peach production are growing slightly more than 0.2% points. Compared to global trends, the slowest production is with plum, which in fact is slightly decreasing. When it comes to vegetable production, regional trend is visible in Serbia too: it lags behind the EU countries. However, unlike with the fruit production, vegetable production in Serbia is growing faster than the global trend. On the other hand, CEFTA countries production is, on the average, growing faster than production in Serbia.

I.6. Competitiveness of Serbia

One of the main features of Serbia is that agriculture contribution to GDP is relatively high – about 12%. This makes Serbia one of the most agrarian countries in Europe with Albania, Moldavia and Bosnia and Herzegovina. There is a clear connection between the level of development, i.e. competitiveness of a country and position of agriculture in its GDP. The higher the participation of agriculture in GDP, the less developed the country is. According to that criteria, countries are classified as agrarian, transitional, urban and developed. With agriculture representing over 10% of GDP, Serbia is recognized as a country in transition.

Graph 6: Link between GDP per capita and agriculture contribution to GDP in 2012



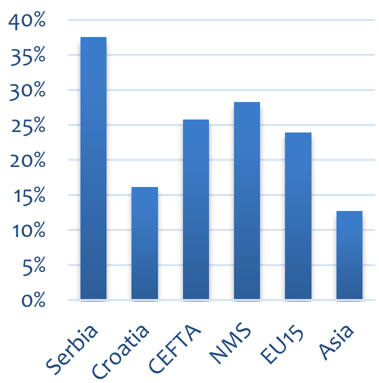
The second crucial feature of agriculture in Serbia is production diversification, consisting of a wide variety of grains and industrial crops, vegetable, fruit, meat, as well as milk and dairy products. A low percentage of specialization is a result of:

- High percentage of modest scale production i.e. production for personal needs which means that the market chain is still short and that it usually ends on the farm itself, in the neighborhood or on the local green market;
- A big number of small farmers, which means many small plots of arable land; and
- Insufficient integration in the world market due to only recently undertaken liberalization;

Existing resources

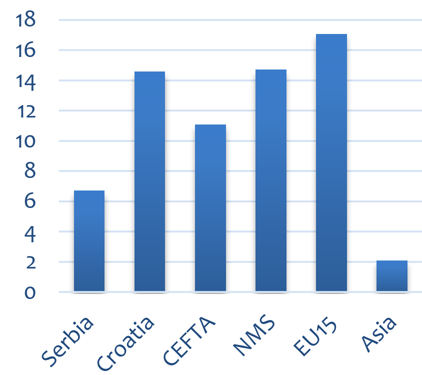
Serbia has relatively significant agricultural land. With about 3.3 million hectares, it is behind big European countries (such as Russia, France, Poland...), but ahead of many EU countries (e.g. Denmark and Czech Republic), but particularly ahead of all CEFTA countries in the region. Besides, Serbia has considerable arable land per capita.

Graph 7: Percentage of arable land compared to total land



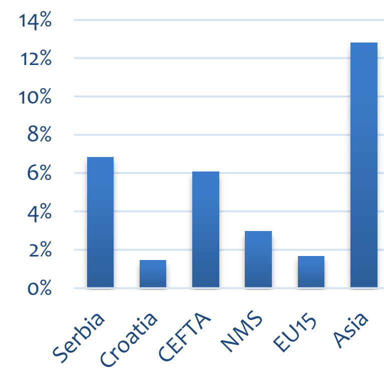
Serbia has the biggest percentage of agricultural land.

Graph 8: Number of hectares per farmer



Only Asia has less arable land per farmer than Serbia.

Graph 9: Percentage of farmers in total population



Only Asia has the higher percentage of farmers in total population.

However, despite having better resources than many other countries, Serbia did not use them adequately, which is why its agriculture lags behind that of more developed countries. Therefore, natural resources on their own are not a sufficient reason for successful agriculture (often they are not even necessary).

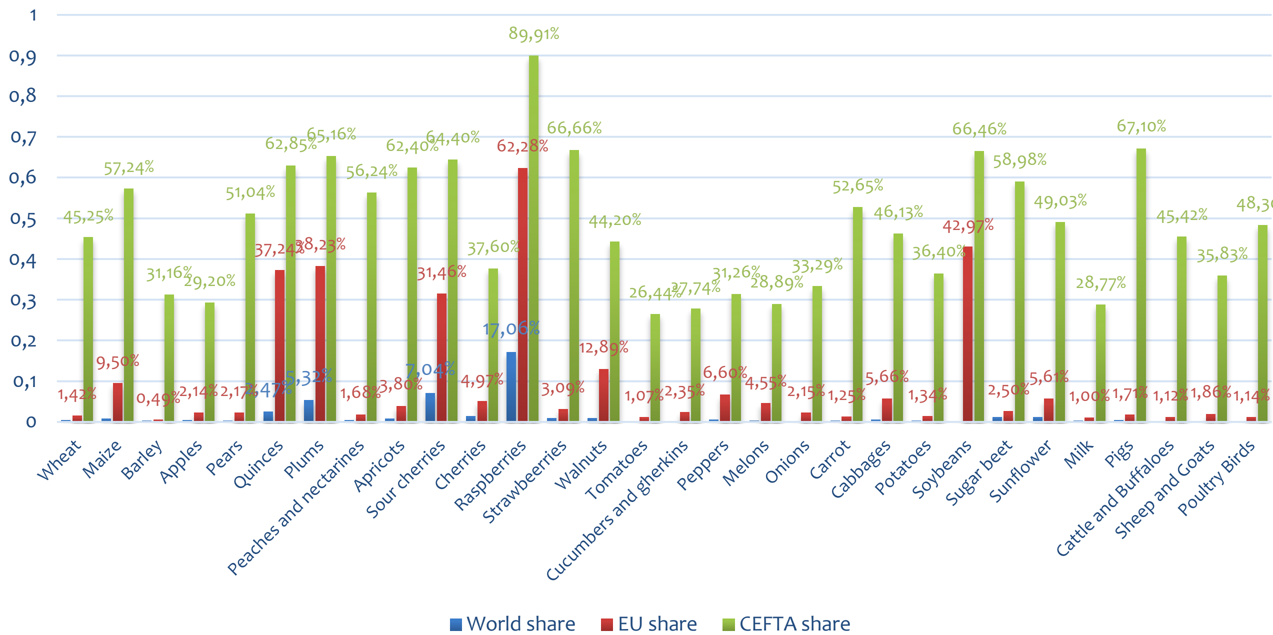
Sector competitiveness

Serbia is the biggest food producer in the CEFTA region; it has the most resources and the biggest market. Consequently, Serbia dominates in most of the agricultural activities and produces over half of total quantity of most types of industrial crops and fruit; as far as grains are concerned, corn is produced the most, and barley the least. Production of vegetables (both perishable and non-perishable) has the smallest share.

A similar situation exists when we look at the contribution of Serbia to the EU production. The biggest share comes from raspberry, plum and soybean production and the smallest from barley, tomato, carrot, potato and wheat.

Globally, Serbia is considered an important producer only of raspberry, plum and sour cherry, but even that is produced only in small quantities (except of raspberry which represents 17% of global production), while in the case of all other products, contribution of Serbia is measured in minute percentages.

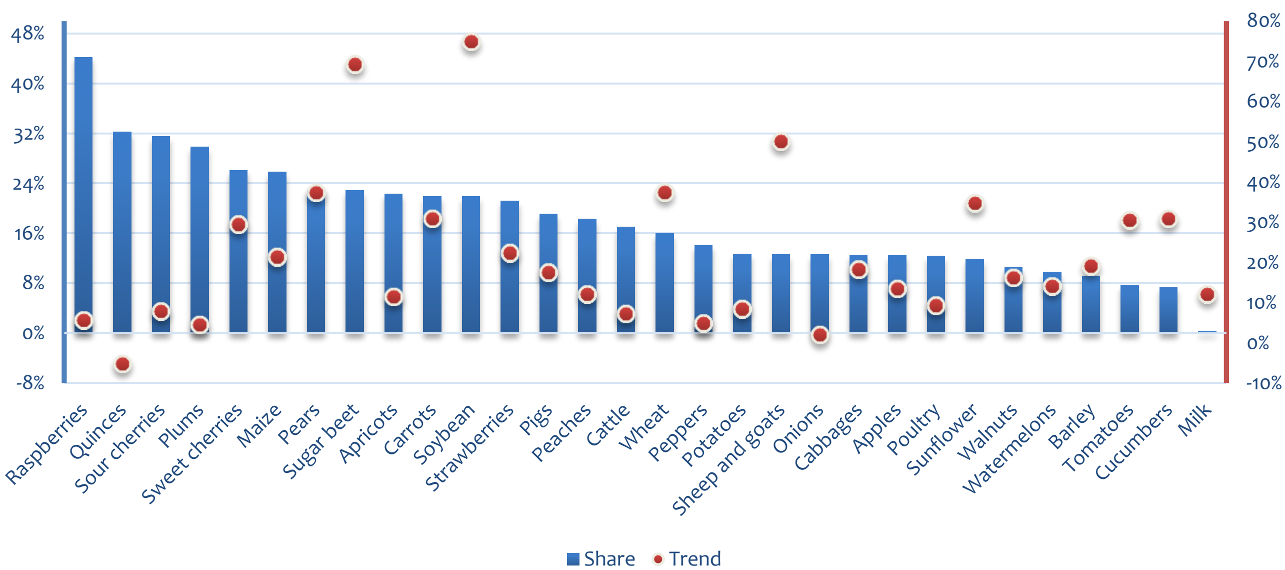
Graph 10: Production share of Serbia globally, in the EU and in the CEFTA region (in percentages, per product)



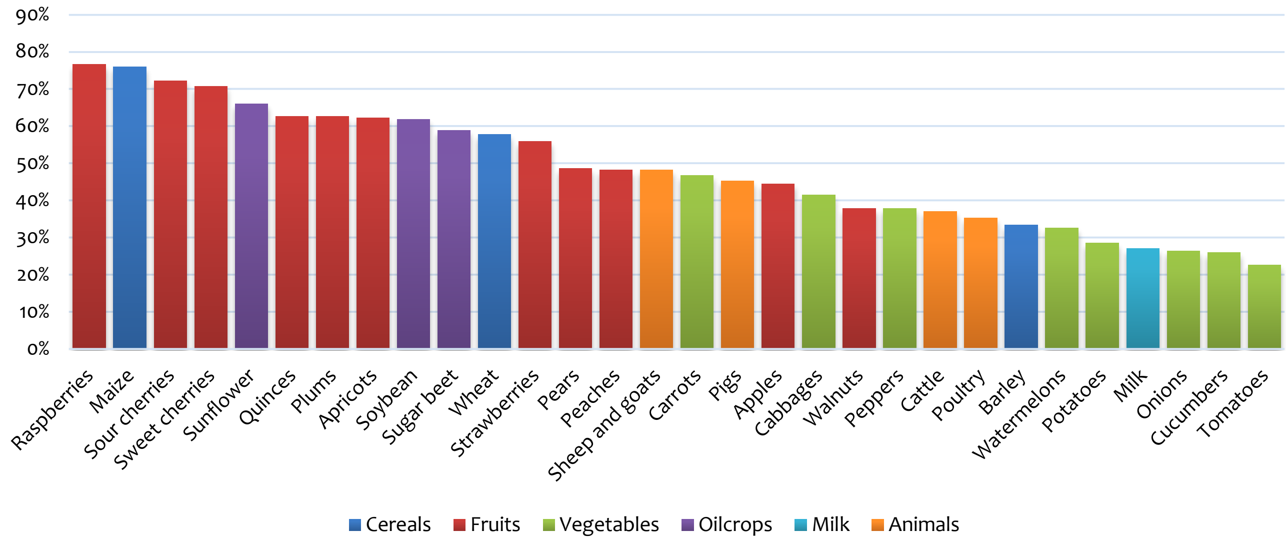
The biggest share of Serbia globally, in the EU and in the CEFTA countries is with production of raspberry, in EU of soy, and in CEFTA of sour cherry. Besides raspberries, the biggest share of Serbia in global production is in production of soybean and pork.

The best trends (production, trade and price) are noted in the production of soybean, sugar beet and with sheep and goat farming. There are also good trends in the production of pear, apricot, sunflower, wheat...The worst trends are in the production of quince, cherry, raspberry, plum, potatoes and milk, where Serbia (except with milk and potatoes) contributes considerably.

Graph 11: Product ranking per competitiveness in Serbia (share and trend)



Graph 12: Product ranking competitiveness of Serbia to average of CEFTA, EU, world



Serbia is the most competitive in production of fruit - raspberry, sour cherry and cherry, and the least competitive in production of milk and vegetable – potato, tomato.

Generally speaking, compared with CEFTA, EU and globally, Serbia is the most competitive in fruit production: mainly raspberry, sour cherry, cherry, plum and quince. Followed by: corn and industrial crops – sunflower, soy and sugar beet. We have medium competitiveness in production of wheat, followed by strawberry, pear, peach and apple. Sheep and goat production is the most competitive in livestock sector, carrot and pepper of vegetable production, while milk production and certain vegetables (onion, cucumber and tomato) we the least competitive.

Attracting investments – advantages of Serbia

Besides production features, Serbia has some other advantages and/or positive aspects which make it attractive to (foreign) investors. Of those, particularly important are the following:

Farmers. The biggest advantage of Serbia are its farmers. Over the last 15 years we have witnessed emergence of a fairly big group of successful agricultural producers who follow global trends, use the latest equipment and technology, are world-market focused and oriented towards production specialization. What's particularly important, farmers are the biggest investors. For this reason, farmers can be a reliable and valued partner even to the biggest global companies.

IPARD fund. Both small and big investors need support and encouragement. That's why the IPARD fund, which guarantees half of investment in the form of grants, represents a very attractive "bait". EU investors are used to these funds and their decision to invest in a certain country is often based on whether such funds are available.

Regions. Professionalization of farmers has resulted in their taking more care of production efficiency, i.e. of the profit. This leads to decisions to produce crops for which their particular region is best suited. That creates regional specialization - certain regions become well-known for production of certain type of product: sour cherry from Oblacina, pepper from Leskovac, raspberry from Arilje, grapes from Topola, peaches from Grocka, sunflower from Banat, cabbage from Futog... This creates an additional advantage which Serbia has so far not adequately, in fact not at all, used – development of products with geographical indication.

Available land. In Serbia, there are about 800,000 hectares which are owned by the state and which will, sooner or later, be on the market. Half of that are meadows and pastures, and at the moment they are not particularly attractive, but bearing in mind that there will be a greater demand for food, it won't be long before this land also becomes valuable. Therefore, all serious investors, both local and foreign, can rely on Serbia to provide the basic resource for agriculture – land.

Trade agreements. Serbia has signed free trade agreements with countries from the region (CEFTA agreement), with Russia, EU and USA. However, since Serbia is not yet a member of the World Trade Organization, producers from Serbia are still protected from competition. That means that investors have practically the whole world open to them, while at the same time, Serbian producers will for a little bit longer, continue to be protected from severe overseas competition, and that gives them time to develop.

European Union. Upcoming EU membership should be highlighted as a particularly attractive detail in strategic-investment positioning of Serbia, because once a country joins the EU, all kind of options and benefits become available. And that's not only a market of wealthy consumers, consisting of half a billion people. What's most important, is that companies which already have access to EU market will invest in Serbia, i.e. they will produce in Serbia for the EU market. That already happened in most of the new member states.

Quality. Serbia boasts good quality agricultural products and what's even more important is that it is able to increase the production of highest-quality food.

The river Danube. Serbia is becoming an increasingly important producer and exporter of grains. Bearing that in mind, Danube, offering the cheapest way of transport of goods to Constance on the Black Sea, can play a significant role in attracting investors. Besides, free and industrial zones where processing capacities can be developed and which can further contribute towards production of wide range of crops, can all be built along the Danube banks.

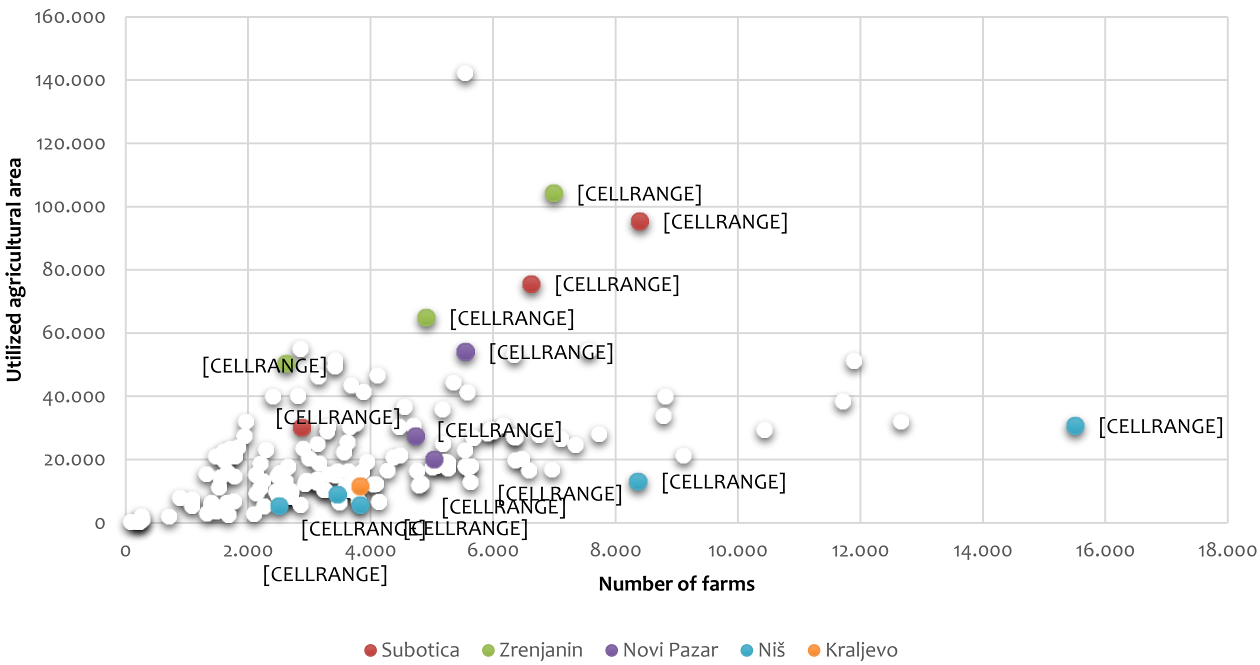
Domestic market. Domestic market of Serbia, with its seven million inhabitants, is not small but is pretty undeveloped. This means that there is a lot of space for introduction of new products.

II. Regional and municipality competitiveness

II.1. Existing resources

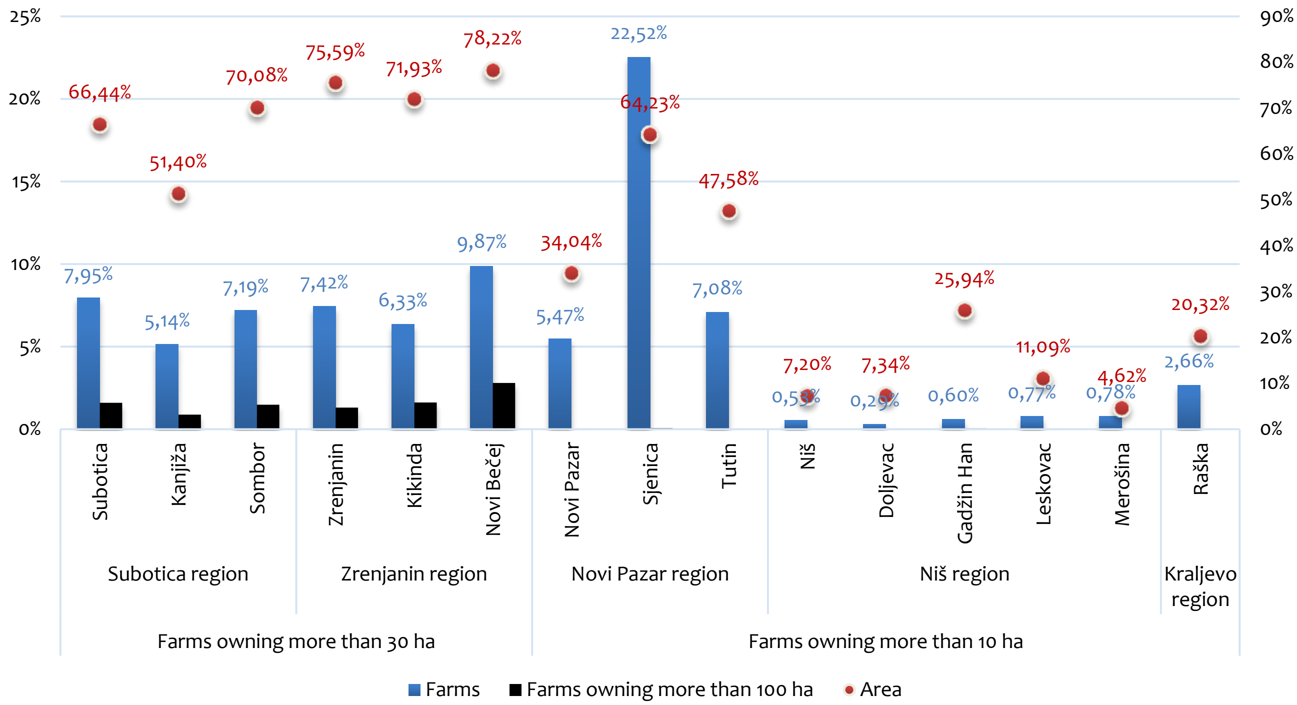
Resources that the agriculture in a certain region is based on, play an important, but not a decisive role in the competitiveness of the region. Characteristics of resources in the regions covered by this project, are applicable to most municipalities in the region (Novi Pazar region) or to two or three municipalities (Subotica region), or the resources may differ (Nis and Zrenjanin regions), but the production structure and competitiveness level are similar in all municipalities. The 15 municipalities included in this analysis differ among themselves – some have the biggest number of registered farms (Leskovac), others have the biggest size of utilized agricultural land (Zrenjanin, Sombor, Subotica), and still others represent a Serbian average.

Graph 13: Comparison of resources - agricultural land and the number of farms in municipalities covered by this project, with the rest of municipalities in Serbia.



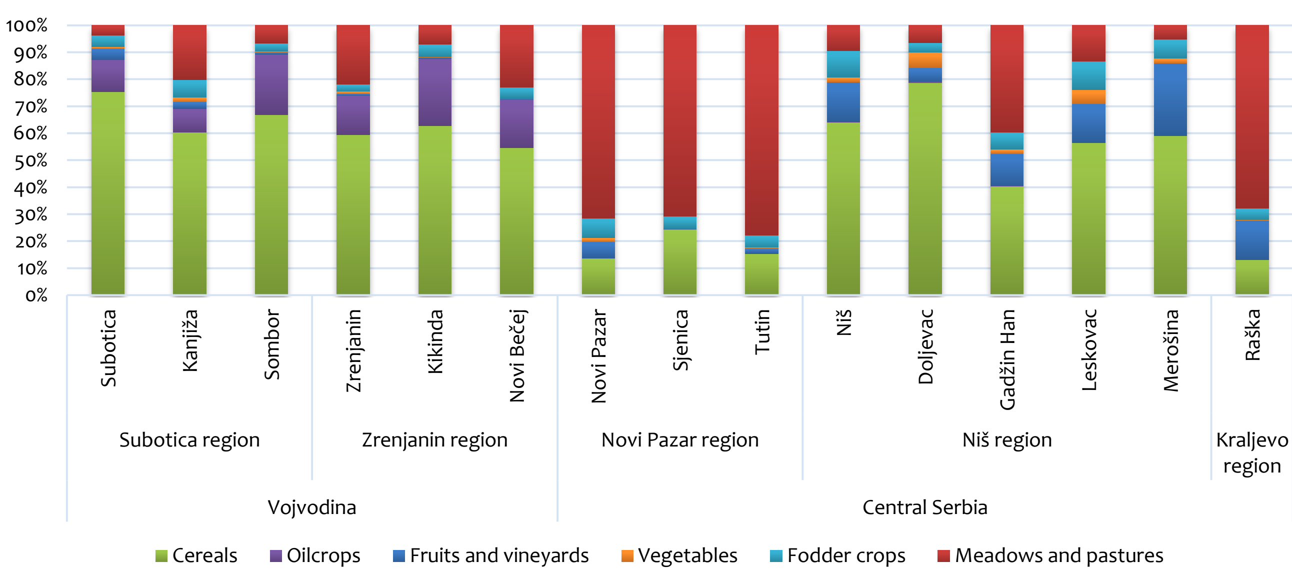
There is an evident disparity between the regions when it comes to concentration of ownership of agricultural land. Distribution and concentration of land resources in Vojvodina, differs from central Serbia. In Vojvodina, about 7% of farms own over 30 ha and cultivate 50-80% of agricultural land depending on the municipality. In the Nis region only 0.5-2% of farms which have 10 hectares own 7-25% of agricultural land, and in the region of Novi Pazar, Sjenica is slightly different because in that region 22% of farms which have over 10 hectares own 64% of agricultural land.

Graph 14: Distribution of farms which own over 30 or 10 ha in project municipalities



Additionally, there is regional discrepancy based on production structure of different crops. In Vojvodina, grains represent over 60% of all surfaces under crops (in Subotica 75%), with only in Novi Bečej production slightly over 50%. Industrial crops are represented only in Vojvodina. Structure of agricultural production structure in the region of Novi Pazar is formed by big pastures and meadows which represent over 70% of agricultural land in Novi Pazar, Sjenica, Tutin and Raška. In the Nis region, production of grains plays a major part in the structure of the utilization of the agricultural land (from 40% in Gadžin Had to 80% in Doljevac).

Graph 15: Structure of the farmed land in the project municipalities



II.2.Sector competitiveness of regions and municipalities

In this project, comparison of regions and municipalities based on production shares and trends described in the methodology, showing that different regions and municipalities are competitive in different types of production. Conclusion on the level of competitiveness of a region was made only if the production in question was competitive in at least two of three municipalities compared to others.

Table 1: Characteristics and Recommendations

Municipality	Competitive sectors and products	Advantages	Recommendations
Kikinda	• Very competitive sunflower production • Competitive corn and wheat production • Good trends in pig and milk production • Considerable increase in carrot production on a small number of farms	• Region close to the Romania • Dynamic development of organic production • Well organised vegetable producers • Recognised wheat quality • Pastures which have not being used • Production is concentrated with specialized producers • Processing capacities awaiting the second round of privatization	• Promote seed production (create a plot map for seed production, organize a conference, ...) • Establish links with neighbouring Romania • Invest in honey production in order to use the big areas under sunflower as much as possible, and to use the existence of a good association
Zrenjanin	• Competitive wheat and corn production • Competitive production of industrial crops, particularly sunflower, with exceptionally big shares in production as well as trends • Significant carp farming • Positive trend of sour cherry production growth	Well developed business support infrastructure • Competitive extension services • Production is concentrated with specialized producers • Traditional processing industry • Carp of Ečka – a product with geographical indication - resources and potential for production increase • Carska bašta – as an example of farmer involvement in the value chain • Possibility of linking agriculture to specialized forms of tourism	• Encourage cooperation of farmers and entrepreneurs and their integration in the market chain (use the Carska basta experience) • Support development of advisory services activities • Support existing processing industry • Promote and support Ečka carp farming • Ensure continuation of positive trends in sour cherry production through supporting setting up of associations, market chain extension, promotion, etc. • Support development of land market by using a transparent procedure of state owned land leasing, which does not favour any particular group of producers
Novi Bečej	• Very competitive industrial crops and cereal production • Positive trend in vegetable production • Competitive production of sunflower and sugar beet • Positive trend in cattle farming • Positive trend in poultry farming	• Production concentration with specialized producers • Existence of a good cooperatives • Production growth trend in vegetable, milk and poultry production	• Support existing associations and cooperatives with further horizontal connections among them • Create plot maps for seed production and promote them • Set up an agriculture zone in order to continue with good trends in poultry and livestock production and their adaptation to EU standards
Subotica	• Very competitive cereals production • Competitive fruit production • Very competitive apple production • Competitive milk production • Competitive pig farming	• Production is concentrated with specialized producers • Existing ULO facility capacities for apple storage are the biggest one in Serbia • Institutional infrastructure for organic food production • Dairy farms are meeting EU milk standards	• Support land market development by using transparent procedures of state owned land leasing, which do not favour any particular group of producers • Promote fruit production innovations • Support fruit and vegetable producers in order to enable them to certify integrated production as soon as possible

Municipality	Competitive sectors and products	Advantages	Recommendations
Sombor	• Competitive cereals and industrial crops production • Very competitive sugar beet production, and very good trends in this production • Very competitive pepper production • Competitive milk production • Competitive pigs farming • Positive trend in vegetable production	• Production is concentrated with specialized producers • Well organized extension service and Education Centre • Potential for growth in production of vegetable and strawberry • Traditional processing industry, both on the farm- and on the industrial level • Experience and resources of producers as a seed-production potential	• Promote seed production through conferences, a list of plots dedicated to seed production • Support extension services and education centre in order to introduce innovations in agricultural production • Support cooperation of producers and formation of production groups and business associations • Create support programmes for competitive fruit and vegetable production (pepper, strawberry • Promote local agricultural products
Kanjiža	• Positive trend in wheat production • Fruit production growth • Positive trend in milk production • Competitive pepper production	• Competitive pepper processing industry • Potential for pepper production growth • United producers with a potential of organizing themselves in production groups • Big potential for growth in viticulture, cut-flower, herbs and spices production • Potential for organic food production development • Pastures which have not been used	• Support organising the pepper producers into a production group • Promote local production of fruit, vegetable, grapes, herbs and spices, organic food • Use good trade contacts with EU countries, primarily with Hungary, in order to extend the existing market chains and attract new investments • Promote local agricultural products •
Sjenica	• Competitive sheep farming • Competitive milk production • Potential for potato production • Potential for production of high-quality honey	• Region with the youngest population in Serbia • Process of adding value to products is well developed: sheep-milk cheese from Sjenica, cow-milk cheese from Sjenica, lamb from Sjenica - products with a geographical indication • Regional Centre for agriculture development which sets up quality-control infrastructure • Possibility of linking agriculture to specialized forms of tourism • Very competitive production of traditional specialities (pies and mantije)	• Support endeavours of the Centre for agriculture development to establish infrastructure for dairy products quality control • Promote products with geographical indication • Support adding value to products through encouraging production of traditional pies and mantija • Support milk and cheese producers to meet the necessary requirements for Sjenica cheese production • Prepare an action plan to improve the production of honey from the Sjenica region
Novi Pazar	• Very competitive honey production • Competitive sheep production • Potential for sheep production and non-perishable vegetable	• Region with the youngest population in Serbia • Developed infrastructure for improved education – University, extension service • Potential for organic food production • Potential for plum production • Very competitive production of traditional specialities (pies and mantije)	• Prepare an action plan for sheep farming development • Invest in honey production in order to use the existing potential and increase production • Intensify production of potato and plum • Support adding value to products through adding value to traditional pies and mantija

Municipality	Competitive sectors and products	Advantages	Recommendations
Tutin	• Very competitive honey production • Competitive milk production	• Pešter Plateau with big meadow management potential • Proximity and trade links with Bosnia and Herzegovina markets	• municipality which comes from business people who live abroad and prepare and offer project proposals • Promote and brand the Pešter region • Define an action plan for Pešer plateau development as a unique region with natural and economic potential
Raška	• Potential for potato production • Potential for plum production	Region in vicinity od Kopaonik touristic resort Potential for cultural, historical and religious tourism	• Intensify potato and plum production • Develop action plan for development of organic production
Niš	• Goat and sheep farming has a good trend • Fruit production is the most competitive sector and plum and sour cherry are fruits grown traditionally • There are good initiatives for expanding cherry and apricot production • Significant increase in honey production	• Good infrastructure facilities in the region and important local market • Traditionally good production of high-quality vegetable • Well-organized producers, like the Klaster Sireva Jug and beekeeping associations, vegetable producers, etc • Good structures for local authority support and support for extension services	• Continue supporting production and mini-processing dairy plants, especially of sheep and goat milk, as well as their registration and marketing • Implement initiatives for comassation and consolidation of land in order to increase productivity • Support fruit and vegetable processing capacities
Leskovac	• Good trends in fruit production– especially production of sour cherry, pear and plum • Competitive production of strawberry in the region and a solid production growth • Pepper is the chief brand of Leskovac with good growth trend and steady production • Competitive production of pepper, tomato and cucumber • Besides growing perishable vegetables, there is a significant and competitive production of potato, especially young potato, as well as carrot	• Significant fruit and vegetable processing capacities • Technical documentation and plans to start a Green Zone • Ajvar and grilled meat from Leskovac are local products with geographical indication • Good tradition and a region recognized for high-quality vegetable production	• Integrate production- and processing-capacities of the region • Focus on small quantity processing and on adding value (small- quantity processing of fruit, vegetable, milk, meat...) • Support production in which Serbia is competitive such as production of sour cherry, strawberry, etc • Intensify production of fruit and vegetable
Merošina	• Sour cherry Oblačinka is the key local brand and competitiveness leader • Fruit production is by far the most competitive sector, particularly production of sour cherry, cherry and quince as well as wallnut, apricot and pear • Vegetable production, particularly tomato and pepper has a significant local potential • Positive trend od milk production, but because of small quantities, it can only be competitive on local level	• Big share of intense-management fruit orchards in fruit production, as high as 95% • Protection of geographical indication of sour cherry Oblačinka • Proximity of big local markets of Nis and Leskovac • •	• Support cooperation of farmers and enterpreneurs in jointly approaching the world market and boosting negotiating capacity of the producer • Continue promoting the Oblačinka sour cherry • Support adding value and higher level of processing of fruit, milk, meat and grains products •

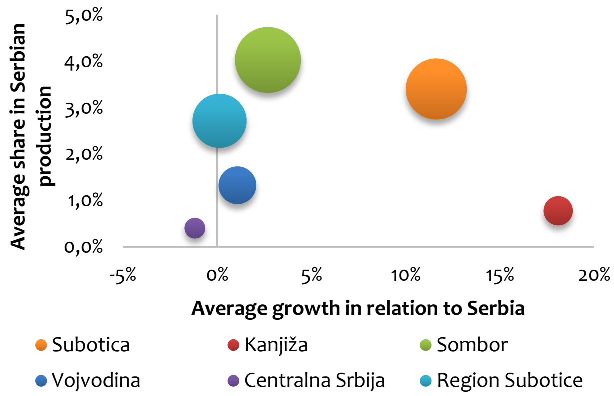
Municipality	Competitive sectors and products	Advantages	Recommendations
Doljevac	• Competitive in melon and water-melon production • Focus on vegetable and to a smaller degree to fruit production • Pepper and tomato production with high growth trend • •	• • Proximity of big local markets of Nis and Leskovac • Good natural environment for horticulture and irrigation • High share in production under protective structure •	• Set up centres for vegetable sorting and packing • Support small fruit and vegetable processing establishments
Gadžin Han	• Plum production is competitive but should be further modernized • Trend of beehives growth rate indicates competitiveness of beekeeping • Raspberry, strawberry and blackberry is produced in very small quantities, but production is on the increase •	• Considerable unexploited land suitable for livestock farming and beekeeping • Proximity of big local market of Nis and Leskovac •	• Due to insufficiently developed infrastructure, invest in small processing establishments and adding value to fruit, vegetable, milk, meat... • Encourage beekeeping in forest and meadow environements of the municipality •

Examples of the competitiveness of the regions

Subotica-Sombor-Kanjiža region – Grains production. From 2007-2012, production of grains in Serbia was at the highest level due to high prices, relatively high production years, and considerable export. In the Subotica-Sombor-Kanjiža region these possibilities were well exploited and contributed towards not only improving the standard of living of local farmers, but also of the national market, since demand for the land increased. As the result of this success, considerable purchase and sale, i.e. land changed ownership. That way, the less productive farmers managed to get a fair price for their land, and more successful had an opportunity to increase production and further develop competitiveness. Specialized producers constantly improved the quality of their crops by introducing new varieties and hybrids of wheat, and thus stood a chance of improving the quality and export of the final product. Besides the price increase, better production of grains was a result of some other factors as well, the most important of which are:

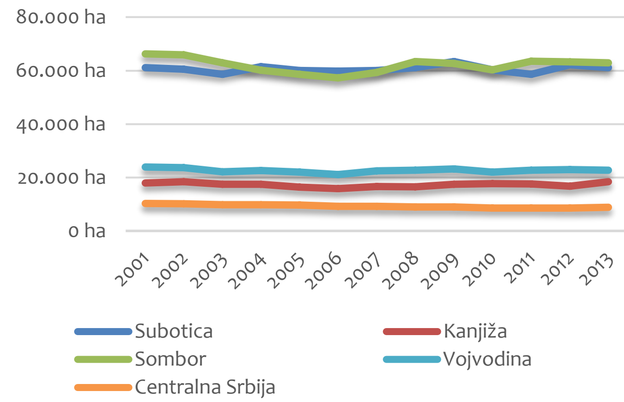
- Access to new technologies (better fertilizers, seed…) which all improved crop quality;
- Structural changes in the farms, i.e. more specialized producers who focus on grain farming;
- Availability of agricultural land through renting of state-owned land which was not used adequately during the '90s;
- Access to loans and grants for purchase of equipment (especially combine harvesters) which made improved production technology possible and increased crop yields;
- Construction of storage space (silo) on farms;
- Existence of cooperatives and companies which organize production and arrange pre-production finance of agricultural inputs for sowing;

Graph 16: Share, size and trend in grains production



Over the past ten years, grains production in Subotica region has grown by 12%, in Sombor by 3%, and in Kanjiža by 18%.

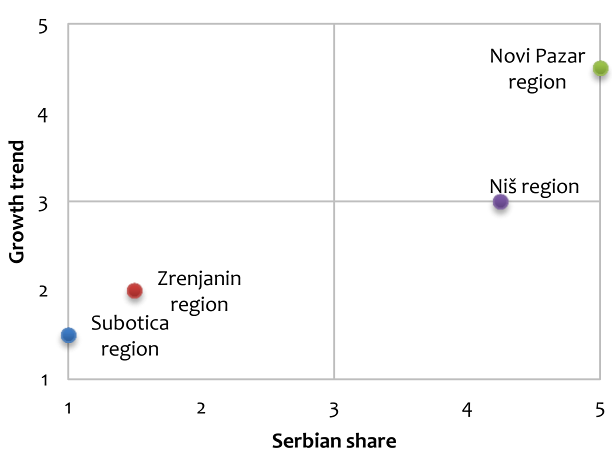
Graph 17: Area under grains in Subotica and Sombor region compared with average municipality in Vojvodina and Serbia



Grain production is stable

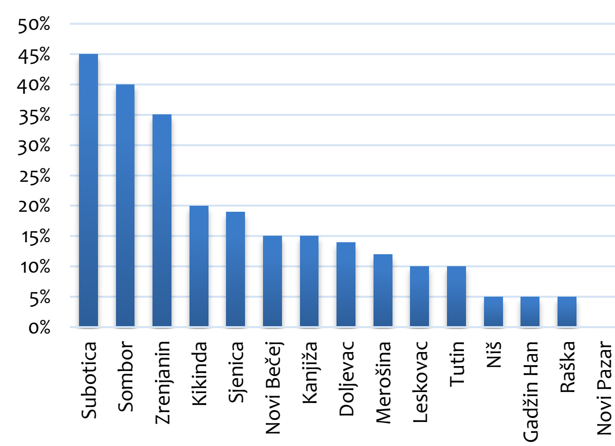
Corn is one of such crops, and in all municipalities of this region covered by this project, there are good trends and good share in production, which makes this region the most competitive in comparison with the other three.

Graph 18: Region ompetitiveness – corn production



Subotica-Sombor-Kanjiža region is more competitive in corn production than others, with exceptionally high marks, meaning that if compared to remaining regions in Serbia, and not only those in the project, , it would still be highly placed, if not in the leading position.

Graph 19: Corn production competitiveness per municipality

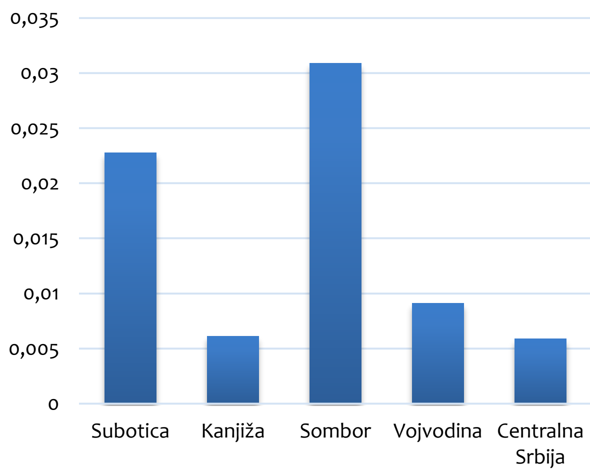


Subotica and Sombor are the most competitive of the analyzed municipalities in corn production, primarily because of good shares in national production, as well as trends which were achieved largely due to desire to increase the yield, rather than the surfaces of production.

The price of grains is going down and it is expected that in the coming years it will go back to the level before the price increase, plus 20-30% (OECD and FAO forecast). That will bring about new structural changes, such as drop in the price of agricultural land, followed by intensive purchase and sale. Bigger farmers, who own modern equipment and who make significant profit with low investment, will buy even more land (initially from the elderly households but also from less competitive farmers, and once the state-owned land becomes available for sale, that one as well). That will create even bigger gap between the big and small farmers, where a few big farmers buy crops and organize the supply chain as well as grain storage for the small farmers.

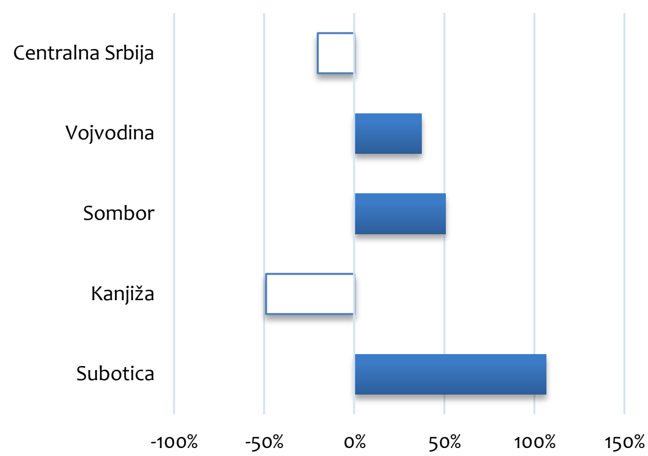
<u>Subotica-Sombor-Kanjiža region – Pig farm development potential.</u> Subotica and Sombor produce more pigs than an average municipality in Vojvodina. Subotica and Sombor have not only good shares of production, but have good trends as well, as a region, and even more so when compared to the rest of the country, which has a negative growth trend. This production is largely concentrated on big farms, as well as on medium and small farms which produce both for the market and for own consumption.

Graph 20: Number of pigs in the region compared to Vojvodina and Serbia (2012)



Subotica i Sombor have a significant pig farming industry compared to the average of Vojvodina and Serbia

Graph 21: Pig number growth trend in the region and in central Serbia compared to Serbia 2002-2012



During 2002 -2012 pig farming growth trend in Subotica was considerably bigger than the growth in Serbia

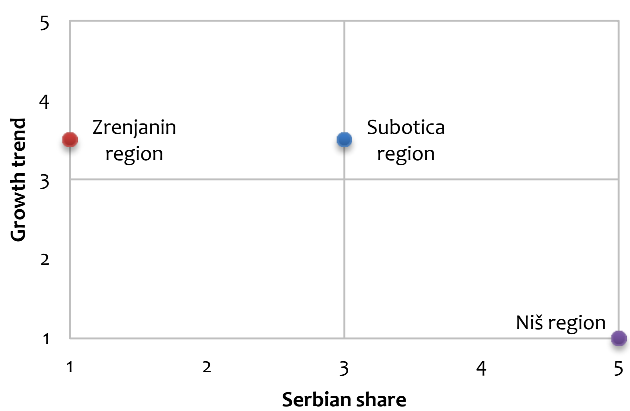
It is expected that the trend of increase of pig production pig farming and concentration on big farms will continue, unless something unexpected happens – such as a ban on meat import to Russian Federation or outbreak of a disease. We have seen that the EU market liberalization did not have a direct negative (but neither a positive) effect on meat production in Serbia.

Pig farming sector is not ready to compete with the European and global markets, because it does not have health- and quality related certificates. Additionally, very few slaughter houses meet the requirements for meat export to more demanding markets such as the EU one. There are just a few establishments for slaughter, cutting and processing of meat registered for export to the EU market (12), and to the third countries market (96), out of 930 businesses which have been registered for this purpose.

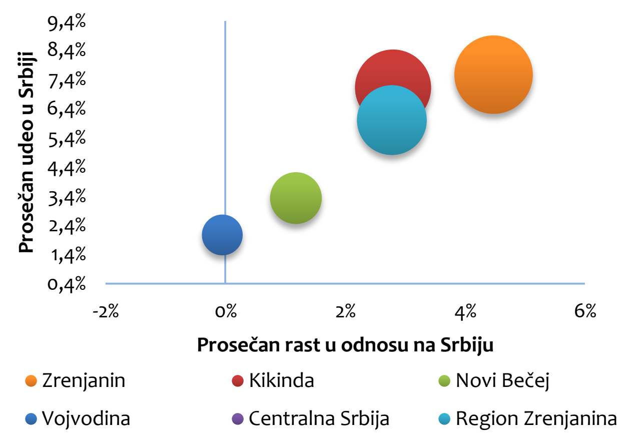
As far as the food safety is concerned, our production chain is inadequate for the EU standards, primarily because it doesn't meet the strict requirements of food safety systematic control, hygienic, ecological and animal welfare standards. Since Serbia still vaccinates against swine fever virus, and since the condition of infrastructure is far from satisfactory, it is clear that Serbia will not be able to export meat to the EU any time soon (it is most likely that these requirements will be met in the year when it joins the EU). That is why some vertically integrated companies are trying to find a way of establishing a close-loop production on their farms (by introducing compartmentalization) in a way that will convince DG SANCO that they are able to guarantee food safety for EU consumers. Whether this will happen, does not depend only on Serbian producers, but more on the will of the EU partner. Bearing in mind the experience of some of the other member states, it is possible to get this kind of permit, although the chances are small and even so, such a decision is likely to take years.

***Zrenjanin-Kikinda-Novi Bečej region – Sunflower is the present and future of agricultural production*.** Everything indicates that sunflower is the most competitive crop in the Zrenjanin-Kikinda-Novi Bečej region. In fact, it is the most competitive crop in Serbia. There are adequate conditions for its production in the region and one should also emphasize the know-how of local farmers, when it comes to sunflower production. On the other hand, there are drawbacks related to climate conditions, such as scarcity of water and this limits the choice of crops which can grow here to those which do not require a lot of water or lighter soil.

Graph 22: Region competitiveness - sunflower production

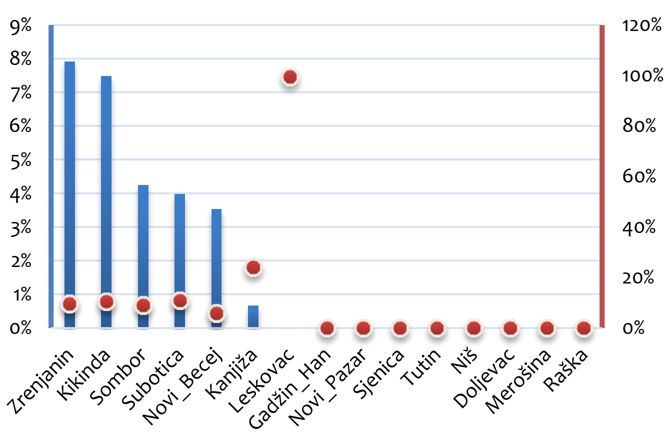


Graph 1: Trend, share and size of sunflower production

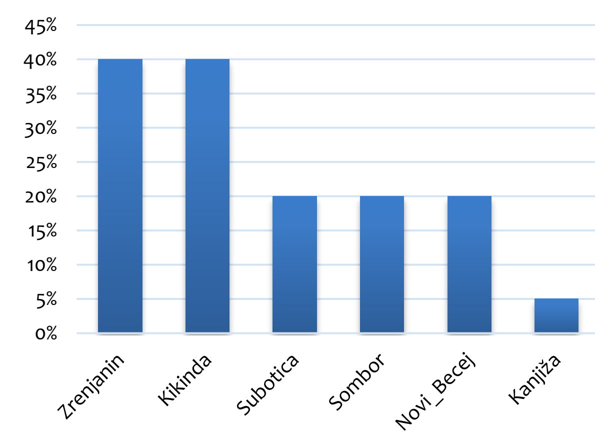


Zrenjanin region is the most competitive in sunflower production

Graph 24: Production share in Serbia and growth trend in relation to own production



Graph 25: Municipality competitiveness - sunflower production



Zrenjanin i Kikinda have significant shares in sunflower production in Serbia, and a continuous production growth, and are the most competitive municipalities in sunflower production.

Serbia is an important sunflower producer in Europe and contributes with 58% of production in CEFTA and 3% in the EU. That share continues to grow. Besides, sunflower is one of the few crops in which Serbia has higher average yield than the EU (in 2013 Serbia had 2.7, and the EU 2 tons per hectare). During the last five years Serbia exported sunflower oil for 100 million US dollars, and sunflower for 18 million dollars. These results were largely due to considerable production increase, from grew from below 2 tons of ten years ago to present-day 2.5 tones, with the aim of reaching 3 tones.

This improvement is mainly the result of better seed quality (in just a few years, local varieties were completely replaced by better quality foreign), but also of improvement of production technique, and use of modern machinery for soil cultivation, as well as specialization of producers. Serbia and the region should not worry too much about the future of sunflower production, especially if the yield continues to grow.

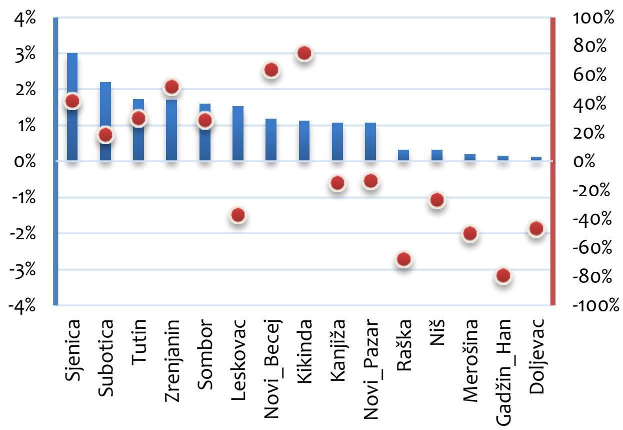
However, it doesn't mean there are no challenges. The biggest threat could be fast increase in sunflower production in the CEE countries (Ukraine, Russia, Moldavia...), which could be a result of more available land as well as the higher yield per hectare. The second threat is the sunflower processing lagging behind in technology applied and not meeting the successes of the primary sunflower production. Unless there is more investment in advanced technology, as well as in improvement of the market chain, particularly in establishing the mutual trust along the primary product supply, competitiveness of our sunflower and oil producers could easily drop.

Novi Pazar-Sjenica-Tutin region – competitiveness to be based on added value. Production structure in the region is linked to the available resources. Livestock is the main agricultural sector, and in this region it is mainly cattle and sheep farming. Production centers are Sjenica and Tutin, and the biggest number of cattle and sheep are raised on the Pester plateau. Cattle and sheep are raised in the traditional manner – in summer by extensive farming in the open meadows, and during winter months cattle are kept in stables and sheep in open paddocks. This farming system is less productive but also entails lower costs, so this production is logically focusing on processing and adding value to the raw material, or consumption within the household.

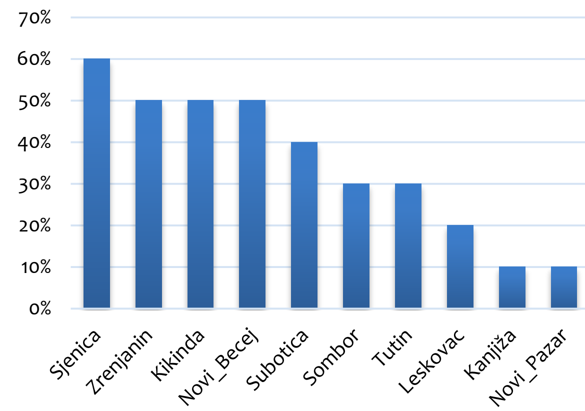
The main advantages of this region are availability of sufficient and inexpensive animal feed and low cost labor. It is estimated that about 70.000 tons of cow milk, 1.6000 tons of sheep milk and 100-200 tons of buffalo milk is produced here. The biggest quantity of milk (59%) remains on the farm and is used for extended feeding of calves and for own consumption. Most of the farms make dairy products for the market (about 20% of the milk), and the smallest percentage (15-20%) is sold to dairy farms. Dairy products from this region are of unique quality and are in great demand all over Serbia, Kosovo, Montenegro and Bosnia and Herzegovina.

Of all the municipalities, Sjenica has the most heads of cattle and there is a growing trend of cattle number compared to the number of cattle in Serbia from 2002-2012-

Graph 2: Share in the total number of cattle in Serbia (2012) and growth trend in the number of cattle compared to Serbia growth (2002-2012)



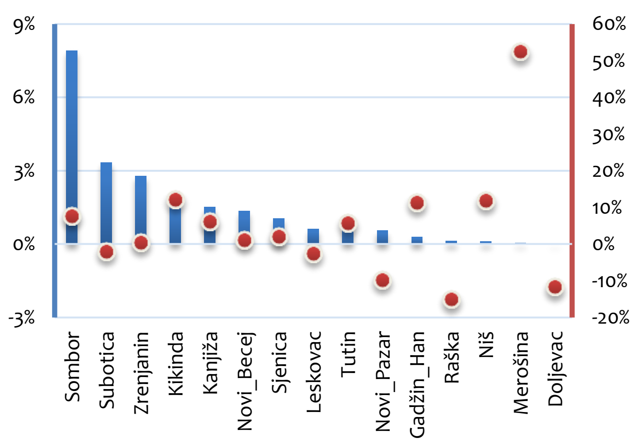
Graph 27: Municipality competitiveness - the number of cattle.



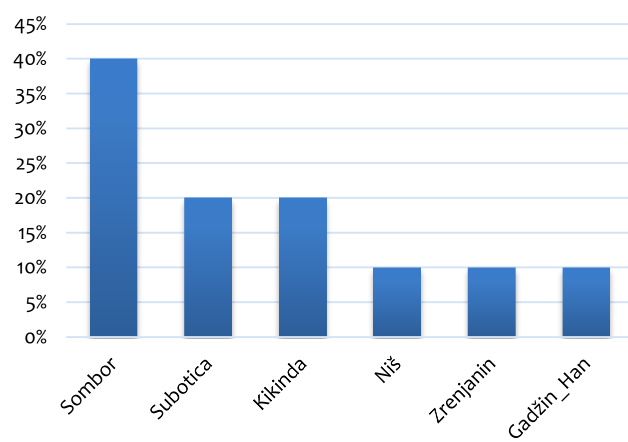
Sjenica is a municipality with the biggest number of cattle of all the municipalities covered by this project. Sjenica and Tutin have registered a growth of cattle farming compared to the number of cattle in Serbia, however, municipalities in Vojvodina with stable production system are also very competitive.

Bearing in mind that only a small quantity of produced milk (15-20%) is sold to dairy farms, this region does not feature in the competitiveness analysis on the quantities of milk sold to dairies, and is therefore not seen as a competitive municipality. Milk purchase growth rate is positive in Sjenica and Tutin, while it is negative in Novi Pazar.

Graph 3: Share of milk purchase in Serbia and purchase trend in relation to growth in a particular municipality.



Graph 29: Municipality competitiveness - milk purchase



Subotica region is more competitive in milk production than other project regions, because share of milk purchase in the Novi Pazar, Sjenica and Tutin region exceptionally small.

Most of the milk from the region is processed into dairy products which are quite unique, recognized for their quality and highly respected and sought after especially in Kosovo, Montenegro and BiH. The traditional product of the region is pepper in sour cream. More dairy products are produced on the farms than in the diaries, since the first ones process sheep and buffalo milk and are able to produce special types of cheeses and other products. Everything is produced traditionally and very different technological approaches are used. In 2011 a request for the protection of the geographical indication for Sjenica sheep and Sjenica cow cheese and subsequently a protection of the geographical indication was received. Competitiveness of the entire milk sector in Sjenica depends on the speed and scope at which the traditional production of Sjenica cheese can be integrated into legal production channels through upgrading of the processing facilities to minimum standards for small diary producers combined to specific flexible rules for traditional productions.

This would allow access to new market channels and better organization of producers to capture added value of these typical products. Also, a lot depends on how this product will be marketed. Namely, milk manufacturers are facing many challenges. At the moment, most of the activities do not meet any standards – selling the milk from home, production of dairy products on farms which are not registered, grey economy of dairy products trade with Kosovo, Montenegro and BiH, etc.

First of all, the dairy industry in Serbia will face severe competition from the EU. Also, everyone in this sector will have to adapt to standards required for milk production: hygiene, storage and transport of dairy products, milk quality control, etc. There will have to be a strict milk and dairy product quality control, strict implementation of the registration of dairy farm cheese production, etc. Everyone is aware of the forthcoming changes and there are activities aimed at increasing competitiveness of this product.

There are two institutions which cover the whole region and support local economy and investors – Regional Agency for Sandžak Development SEDA and Agriculture and Rural Community Development Centre. Consulting service within the Centre is very important for the milk production sector, as well as the laboratory which should start working soon and which will be able to do the milk and meat quality and hygiene analysis and to offer support with implementation of standards in agriculture. This Centre should in the future become a place of dialogue and meeting of all participants in agriculture and food processing industry from the region, as well as the promoter of their activities in Serbia, the EU and globally.

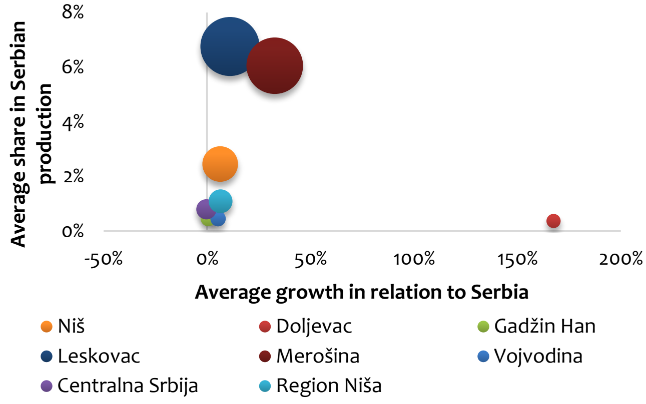
Nis-Gadžin Han-Doljevac-Leskovac-Merošina region – Sour cherry is the main export potential and the leader in competitiveness r. Sour cherry is one of the important export potentials not only of this region, but of Serbia as a whole. Serbia is very competitive in cherry production, although the growth trend is relatively modest, since the growth trend is only 1% comparing to the world trends, however in the export, only in 2013 the export was increased by half in relation to the previous year.

Cherry production in the entire district of Nis and Jablanica is significant and plays an important role in fruit farming in Serbia. The most important variety is the Oblačina sour cherry, which has a good reputation on global markets, mainly because of its permanent and intensive color which remains the same even after thermal processing, and because of high percentage of dry matter, which is why it is particularly in demand for the condiment and food processing industry.

The municipality of Merošina, where the village Oblačina is considered the birthplace of this variety, is still a production champion of the region with growth rate of 33%, followed by Leskovac which is has significant share and a good growth (11%) and these two municipalities are core of the regional competitiveness and integrated offer for export. As for Doljevac, Nis and Gadžin Han their shares in production are somewhat smaller but they also have good growth trends (Doljevac has registered growth rate of 167%).

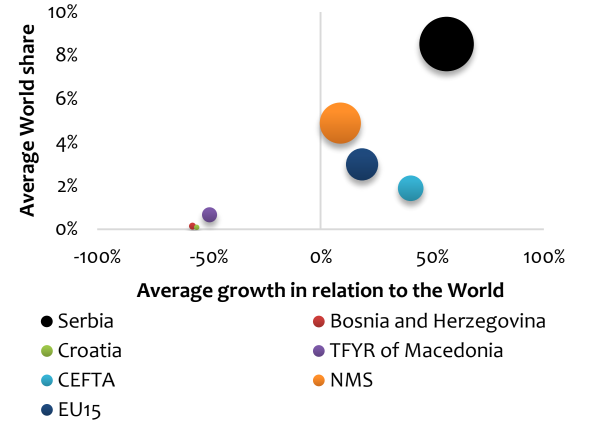
Over the past few years, several producer associations were established in this region as well as a cooperative trying to arrange organized sour cherry marketing and sale. A year ago, a process for the registration of Oblačina sour cherry as geographical indication started, and should be a trigger for valorization of its quality based on origin. More and more attention is paid to creating added value products such as dried sour cherry, production of juices, jams, compotes.

Graph 4: Trend, share and size of sour cherry production



Merošina boasts big sour cherry production growth with good growth trend of 33%, Leskovac of 12% and Doljevac of even 167%

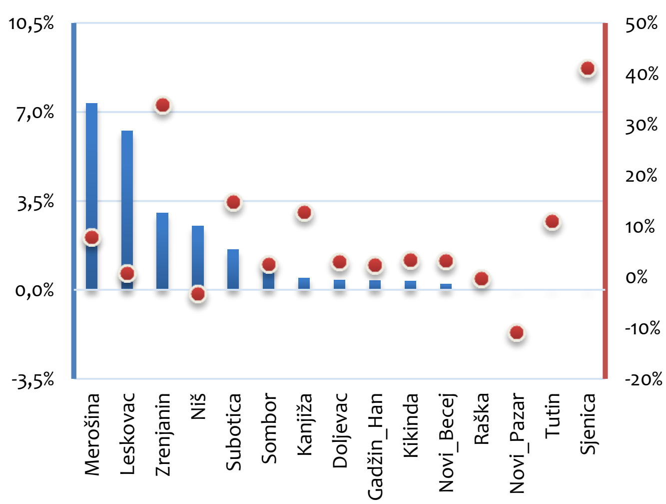
Graph 31: Trend, share and size of sour cherry export (2012 - 2013)

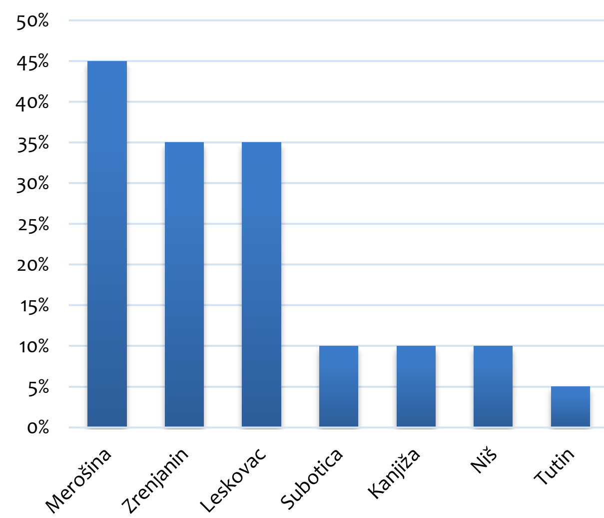


Export of sour cherry from Serbia compared to 2012 has grown over 50% and no other country has such a fast growth rate.

It is necessary to intensify production and improve product quality of sour cherry, particularly it is commonly still considered to be a low intensity fruit not requiring big investments, while the labor force during harvesting as a significant cost is to great extent covered through family resources.

Graph 32 and 5: Cherry production competitiveness of 15 municipalities covered by this project





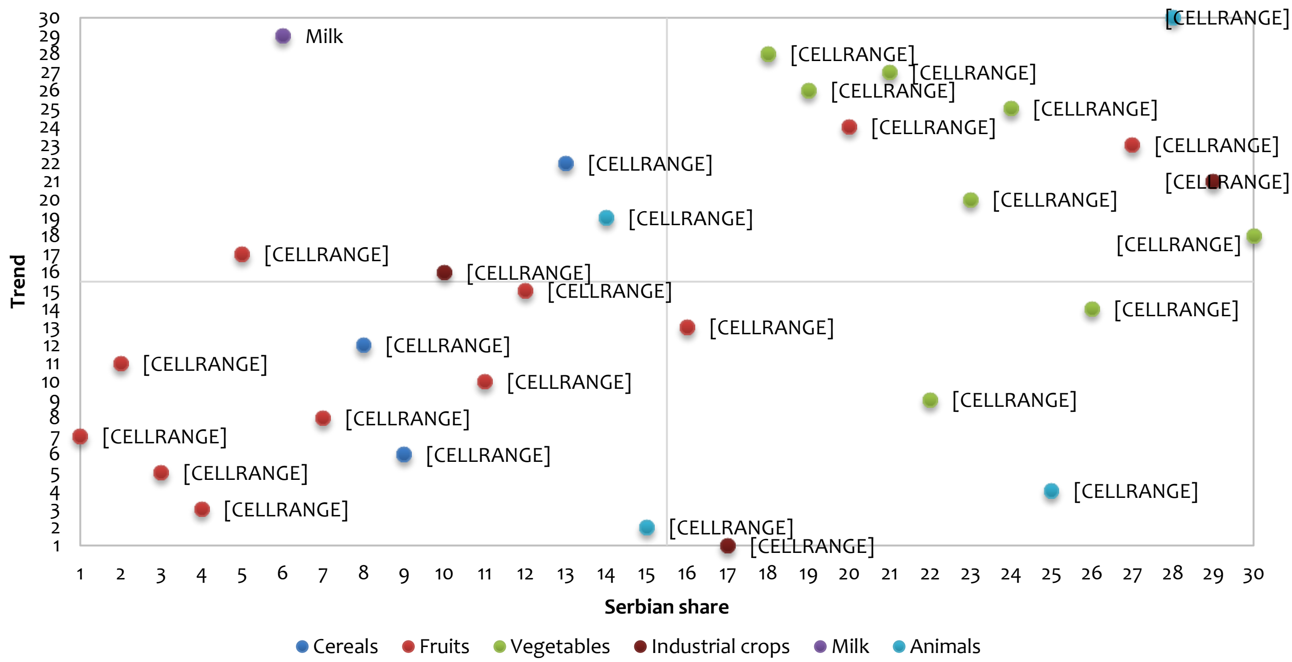
Cherry is grown on over 3000 ha in the region, in all five municipalities, and represents almost 20% of fruit production of Serbia. Merošina is the most competitive, but also Zrenjanin where orchards with other sour cherry varieties with larger fruit are planted and this threatens the leading position of the region.

On the other hand, in these five municipalities there are over 3000 hectares with cherry and this represents nearly 20% of total national production, which is why the region is considered highly competitive. Cherry production is considered very profitable both for the domestic and for the foreign market, especially in intensive farming system. . However, besides increase in the yield and improvement of the fruit quality, it is needed to improve the market chain in order to balance the relation between the producer and -cold storage in order to achieve a fair price. It is also necessary to encourage processing and adding value to sour cherry, particularly of its properties predominantly for processing into juice, jams, compote, etc.

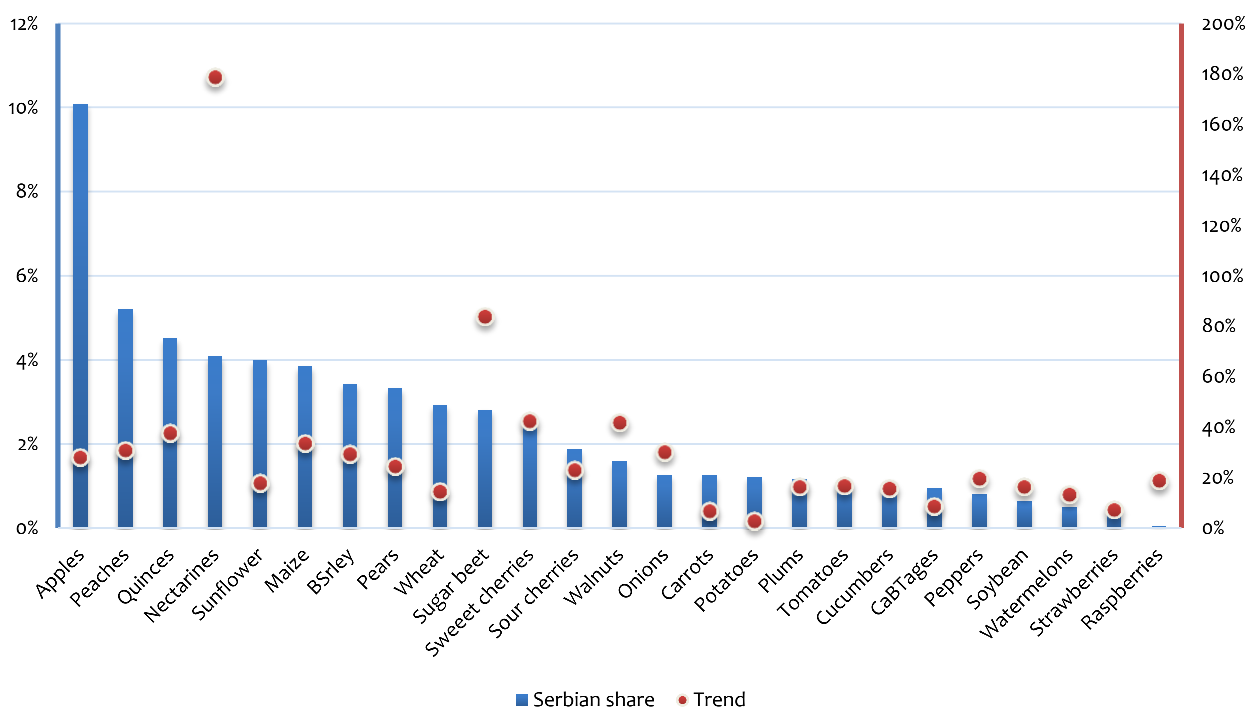
Examples of municipality competitiveness

Subotica municipality and apple production

Graph 34: Product competitiveness in Subotica (trends and share) - rank



Graph: Product ranking – share of Subotica production in Serbia and trend of production in Subotica



Subotica produces 10% of all apples in Serbia

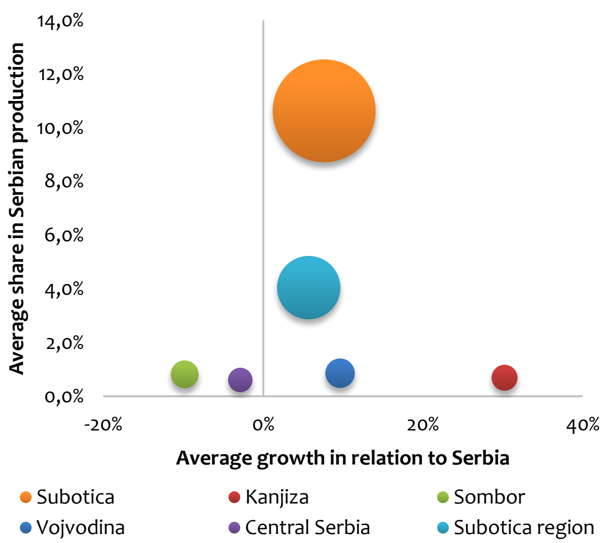
Apple is the most important fruit in Subotica, and its production represents 10% of total fruit production of Serbia. Apple production in Subotica is stagnating i.e. there's no growth in relation to the average production growth in Serbia. Basic trends in apple production in Subotica are:

- Continuous investments in planting of new orchards and construction of ULO cold storage facility from 2005 until today
- Intensified production and implementation of new technologies (high density planting, application of water soluble and other fertilizers and bio regulators, integrated plant protection, hail and frost protection, etc.)
- Heavy reliance of commercial producers on a single market (Russia). Since 2006 almost entire apple production of commercial producers has been directed to the Russian market. Apple price is formed according to the sale price for the Russian market
- Export of industrial apple to the EU

Special advantage of Subotica fruit producers are apple storage capacities, of which over 12.000 t is ULO cold storage capacities Concentration of storage capacity and production, has enabled access to the Russian market since 2006, and that in turn created conditions for increased apple production in Vojvodina.

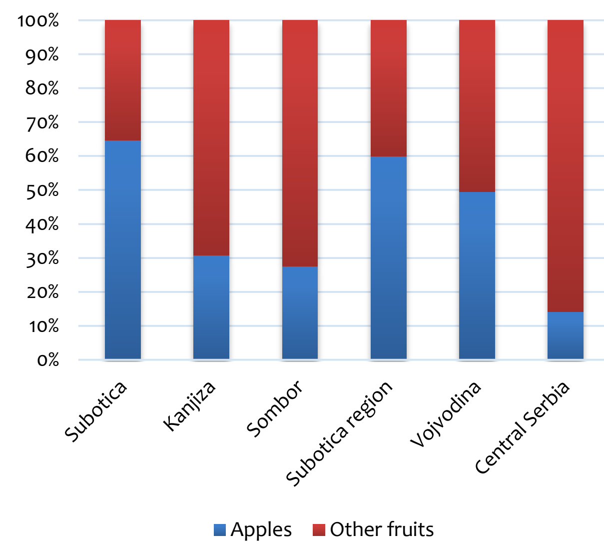
Main barriers for intensification of production are the risk of targeting only one market (that of Russia), poor phytosanitary policy, as pesticide regulations and policy prevent following of the EU standards. . Another risk is a possible danger that companies that are apple producers in Vojvodina and also the exporters of apple, take over the Russian market.

Graph: Trend, share and size of apple production



Apple production, in Subotica grows faster than production in Vojvodina

Graph: Apple production share in total fruit production



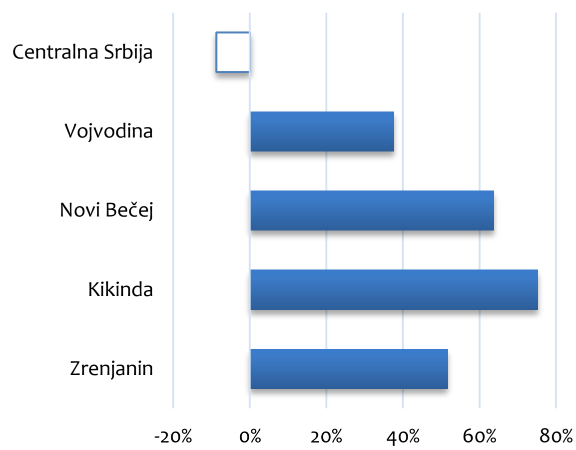
Apple represent 65% of fruit production in Subotica

The main advantages of apple production in Subotica is the big number of family farms which have specialized in apple production and which readily accept innovations and have surfaces for production increase and quality improvement through introduction of new varieties and technologies. Another new potential for apple production is opening of new markets, primarily retail sector in the EU as well as the production technology improvement, including introduction of varieties which will increase product value.

Beef and poultry farming as an option for production diversification in the Novi Bečej municipality. According to production share and trend product ranking, cattle farming in Novi Bečej contributes more to Serbian production than any other form of farming. Novi Bečej has contributed twice as much as Vojvodina, and slightly less than 50% in relation to Central Serbia.

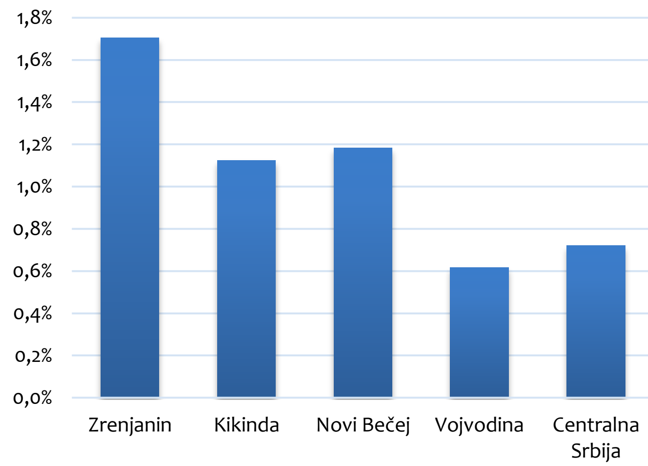
According to the number of cattle, Novi Bečej is at the 5th place in Vojvodina. According to the 2012 census, there are 10.753 heads of cattle of which 4.901 are cows. In the Srednji Banat region, only Zrenjanin has more heads of cattle, 44% more. Total number of cattle in Novi Bečej is twice that, compared with average municipality in Serbia or Vojvodina. When we divide the total number of cattle with the number of hectares, Novi Bečej still has sufficient resources for cattle farming.

Graph : Cattle number growth trend in the region and in central Serbia compared to Serbia 2002-2012



Number of cattles growth trend is evident in region as well as in Vojvodina

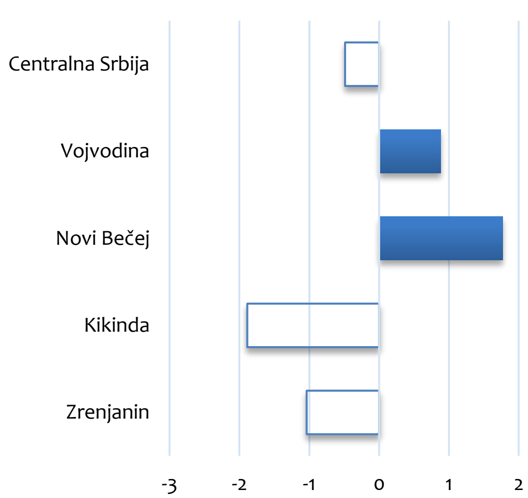
Graph : Municipality competitiveness – cattle number



Biggest contribution to beef production is by Zrenjanin, followed by Novi Bečej.

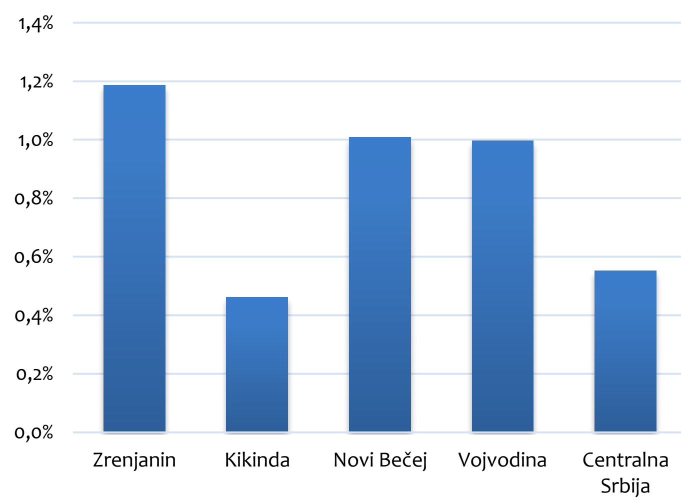
According to 2012 agriculture census, there is 69% more poultry in Novi Bečej, i.e. 9% when you take into account the number of hectares, compared to Serbia.

Graph : Poultry production trend in relation to Serbia



Novi Becej has a poultry production growth trend double

Graph : Share in poultry production in Serbia



Although Zrenjanin has a negative productin trend, it has the biggest *that of Vojvodina, but it is the only one of the mnicipalities from the region that has positive trend in this production.*

share in Srbian production, of 1,2%. However, Novi Becej also contributes considerably with 1%, same as Vojvodina, and twice that of central Serbia.

There is a trend in Srednji Banat municipalities of slowing down with poultry production in comparison with Serbia, mostly in Kikinda, followed by Zrenjanin, although Zrenjanin boasts the biggest production compared with the other municipalities. Novi Bečej stands out as a municipality which has a significant production growth trend, twice as big compared to that of Central Serbia. It also contributes with 1% to poultry production in Serbia.

There are 10 farms in this municipality which are involved in meat processing and 55 in diary production. Such trends in cattle and poultry farming, as well as Novi Bečej's ranking in Serbia, enable processing farms in Novi Bečej to develop this production further and to grow their business.

Pepper –Leskovac reputation and competitiveness – solid growth trend and stable production. Pepper represents a vegetable in which Serbia, and especially the Leskovac region, has a long production, processing and consumption tradition. These facts contribute to significant production levels and opportunity for growth.

Ajvar made in Leskovac is a protected designation of origin which enables producers to increase their profit through higher price that reflects a connection between quality and origin. Ajvar from Leskovac bases its reputation and quality on tradition, natural resources and know how, and provides an opportunity for competitiveness based on quality. Besides pepper processing activities (both on the industrial and small-scale level) some of the opportunities for development of value chain are:

- Bigger number of specialized producers
- Reduction of loss and improvement of production technologies
- Increased greenhouse production which would reduce the risk in production and import dependency
- Consumer behavior change and diversification of consumption – increased consumption of big bell peppers, hot red pepper, ...

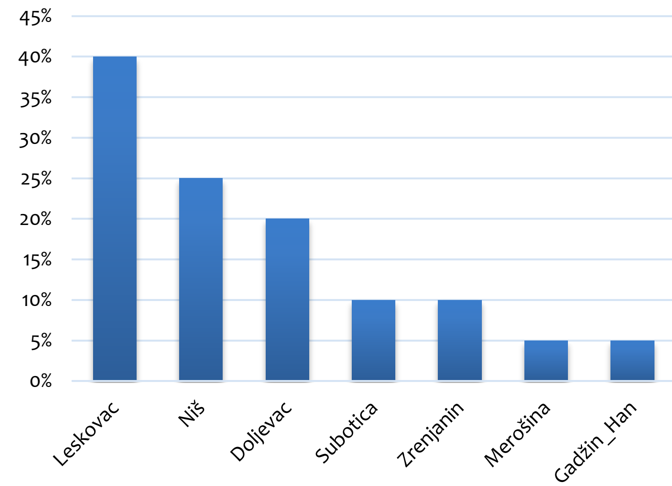
Additional uniqueness and link of this production with the region is that unlike most other vegetables, pepper is grown only on small and medium farms, due to labor intensive production. Labor force is the key limit for large scale pepper production. That is why pepper growing, as a labor intensive type of farming, is feature and big advantage of the Leskovac region. Bearing in mind the average amount of used agricultural land per farm, which is, almost three times smaller than the national average, pepper is an important culture in the small-farm development strategy. Since its price is higher than that of other vegetable (tomato, potato, onion, cabbage) and this creates a considerable turnover and production value. So besides tomato, pepper is in the Leskovac and the remaining municipalities of the region the most cultivated vegetable which brings considerable profit to rural population, either in the fresh or processed form.

Pepper production and processing has a big potential in Serbia, and factors influencing this are:

- Expected drop of field-crops will make vegetable production more profitable
- Willingness to improve local seed production
- Improved coordination of producers and processors
- Pace of specialization of big farms for vegetable production that will depend on agricultural policy, ability of banks to correctly evaluate credit requests, successful attracting of investments to this sector, self-organization...

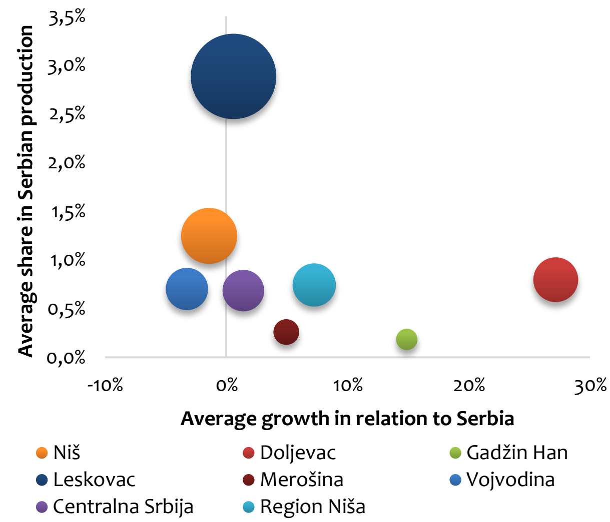
- Production and market development in neighboring countries with which Serbia has free trade agreements

Graph : Municipality competitiveness – pepper production



Leskovac, particularly if other municipalities from the region are added, plays a significant role in pepper production in Serbia, and thus represent an attractive option for investment in processing and placement of this vegetable.

Graph : Trend, share and size of pepper production



Leskovac is the obvious leader in pepper production in the region with positive growth trend

III. How to attract investment in agriculture – role of municipalities

Agricultural policy is almost entirely made on the government level, i.e. by the Ministry of Agriculture, which means that municipalities have minimal, if any, role.

Their role is more or less administrative - they organize damage estimation panels; collect information on production, sale, investments, problems and opportunities for their municipality; represent local agriculture industry in meetings with donors and national authorities; prepare agriculture and rural development projects; provide information to farmers and help with registration; do administrative work which has been assigned to municipalities (conversion of agricultural land into urban construction land, creating programmes for use of agricultural land, arranging auctions, etc).

On the other hand, agriculture and rural development are some of the most important elements of most economic activities in practically all municipalities of Serbia, not only because a big number of people directly or indirectly depend on them, but because in each municipality agriculture has a potential to increase profit and create jobs.

Thirdly, municipal office, i.e. local authorities, since being in most direct contact with people, is the first place where someone will come to get information, advice or file a complaint. That is why municipal authorities, whether they want to or not, often have to get involved in various aspects of rural life, and this explains why local authorities need to support development of agriculture in their municipality, as well as all other aspects of economy.

Because of all this, although their powers regarding agricultural policy development are limited, municipal offices could play a significant role in agriculture development. They would have two main tasks: One, improving environment for agricultural production, which means improving functioning of municipal offices, but also supporting farmers and attracting investments.

III.1. The role of municipal office in creation of business environment in agriculture

Economic development in general, and agricultural development in particular, depend on many things, of both domestic and foreign nature. Though, in today's global world, local community has a small influence on most of them, municipal office is not entirely helpless for it has its own instruments of influence, to contribute to development of agriculture in its municipality. We should bear in mind that development should be based on the fact that prosperity and improved quality of life of local communities, is not crated by national or municipal authorities, but by private initiatives.

Besides having limited powers, municipal offices in Serbia also have limited budgets, which is why there is always a discrepancy between desire and reality. That's why it's important for the available resources to be used as rationally and as efficiently as possible, and for their influence to be maximized. For that to happen, one should particularly take care of the following:

1) Strategic support to agriculture, i.e. to rural development;
2) Institutional support to agriculture, i.e. to rural development;
3) Programme support to agriculture, i.e. to rural development;
4) Allocation of budget for programme implementation;
5) Creation of capacity for implementation of adopted measures;

III.2. Role of municipal office in attracting investments

Solid business environment is an important, but not decisive reason for attracting local or foreign investment capital. This game has its rules, which are defined not only by law, but even more so by potential and experience of participants i.e. by those who hope to receive such investments (municipalities, state), as well as by the needs of those who are in a position to offer them (businessmen, both local and foreign). That's why local communities have to find a niche, i.e. something that is unique about them, to attract potential investors. To succeed in this, municipal offices have to answer many questions but it's very important to bear one thing in mind: opportunity for agriculture development in Serbia is not in its primary production. **Local authorities must focus on attracting investments for the processing industry.**

Where are investment potentials?

When we focus on investment potential according to the type of investment, we can identify three types of investments:

- Greenfield and brownfield investments in processing capacities which come as:
  - Direct investments of big foreign companies which have access to EU and other markets and to capital, as well as the know-how on how to organize and improve market chains.
  - Investments by local companies which have experience in organizing market chains in agriculture.
- Investments in processing capacities of local processing groups, regardless of whether they are organized as cooperatives, associations of cooperatives or consumer associations.
- Increase of existing capacity and improvement of product standards of existing processing industry business.

How much can a municipal office influence arrival of mainly foreign investors into processing sector?

Through its competence and existing business environment, a municipal office can to a large extent influence an investment decision, but only after a potential investor had decided which country he wants to invest in. Once he's made that decision, a potential investor carefully selects the location of his new business, taking into account numerous possibilities which municipalities have to offer and adapting them to his business plan. Then he looks for a location and for partners among municipal institutions. Facts which influence arrival of an investor can be divided into three groups:

1. **Geographic-infrastructure.** An investor will definitely want to know how far the potential location is from the market and roads, as well as from the final sale place; how developed the infrastructure is; how far it is from the main roads; how easily accessible are water, sewage, electricity, telephone lines, etc.
2. **Human resources (availability of capital, workforce and other services**). Good quality workforce, but also possibility for their education and training, accessibility of other services (banks, suppliers, small workshops, accommodation facilities, etc.) as well as the general standard of living, plays an important role when deciding where to invest.
3. **Municipality partnership.** This is a group of conditions on which a municipal office has most influence, because meeting these requests is its main task.

Does it pay off to attract investment?

Attracting investments requires considerable effort both for improvement of municipal administration and for preparing industrial zones, as well as for promotion, etc. However, regardless of the costs involved, one should never ask whether it pays to invest in improving conditions that might attract investments. What one should ask is how to optimize such investments, both the costs of providing adequate capacities, as well as realistic needs assessment.

Is it worth inviting investors into agricultural sector during financial crisis?

Although the financial crisis which, on the one hand, reduced municipal budgets and on the other, made investors scarce is not over yet, local authorities should not be in dilemma whether to take action or not. **This is a good time for attracting investments to agriculture.** The reasons why this is a good time which municipal authorities should use during discussions with investors regarding timing of investments, are the following:

- Agriculture was affected by the crisis, but not nearly as much as some other sectors.
- Agricultural environment is now more stable than it was before the crisis because market liberalization has been completed, input and equipment markets are better developed, credit portfolio of agricultural credits today amounts to over 300 million Euro while at the time before the crisis it was under 200 million which indicates a relatively good development of agricultural credit.
- Serbia, and especially Vojvodina, has always had good farmers who know how to farm the land. Following the introduction of market regulations, they have significantly improved their bussiness in the last few years, and are now more specialized than they were five or ten years ago.

What should the municipality focus on?

Municipal authorities should avoid the trap of focusing only on one big foreign investor. Local farmers and entrepreneurs should not be ignored. Attracting of investments should focus on:

1) Consolidating and organizing of local producers who could make joint investments.
2) Support big local producers who would be ready to invest in production improvement, storage and processing capacities so that they have something concrete to offer when starting negotiations, joint ventures or other forms of strategic partnerships with food processing companies.
3) Direct, targeted communication with potential investors who should be sought among Serbian companies, as well as among companies in neighboring countries and in the region.
4) Promotion of local potential and products.

How important is promotion?

Promotion is exceptionally important. Investors, foreign or local, new or existing ones, should be well informed about the municipality potential, as well as about current advantages which that particular municipality has to offer. The best promotion, i.e. the best way to find an investor, is creation of attractive business environment. Only then will investors on their own, through internal communication with other business people who will pass on their positive experience, act as the best PRs of that municipality. But, in that case, local authorities should develop and implement practical public relations strategy.