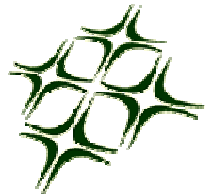


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Reviewer paper

South Pannon Food Chain Network

Hungary-Serbia IPA Cross-border Co-operation Programme

2011

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Good neighbours creating common future

South Pannon Food Chain Network

Hungary-Serbia IPA Cross-border Co-operation Programme

2011

Keywords: Hungary, Serbia, cross-border cooperation, food chain, EGTC

Abstract:

The SPF Network project supported by EU's IPA program want to point out that Vojvodina and the Southern Great Plain are territories strongly depending on agriculture and food industry, the rise of which regions could be based only on cooperation between the two countries, primarily in the fields of agriculture and food industry.

The Project shows that relations between the two countries, the two observed regions are still very limited in this sector of the economy, while there are so much the potentials still not capitalised.

The aim of this Project is to present sectoral characteristics of the two regions and the conditions by which cooperation could be established between them.

Foreword

It is an often heard statement that both in Hungary and Vojvodina we possess determining resources – arable land, tradition and good working culture of the population – primarily in food industry, which could ensure competitive production even in the long run.

As a result of profound reform of economic policy in Central Eastern Europe, the volume of agricultural production has reduced considerably, and currently beside Hungary and Bulgaria only Serbia (mainly due to agriculture in Vojvodina) remained self-sufficing and net food exporters.

The Western European region could be the achievable target market for Vojvodian agriculture and food industry (because of the not really attractive Serbian inner market and despite huge competition). However, beside the intensified and effective agricultural subsidy system of EU countries, standards, quality requirements and the more and more strict system of quotas are also barriers to exporting agricultural products.

In the long run, the altering/liberalised system of competition control will gradually relocate mass production to regions with more favourable natural endowments, and this may improve the position of Vojvodina in food export, but currently in the foreseeable medium term, only production of labour intensive cultures and marketable final products, instead of mass production, could be an effective development alternative for our agriculture.

The SPF Network project supported by EU's IPA program want to point out that Vojvodina and the Southern Great Plain are territories strongly depending on agriculture and food industry, the rise of which regions could be based only on cooperation between the two countries, primarily in the fields of agriculture and food industry.

The Project shows that relations between the two countries, the two observed regions are still very limited in this sector of the economy, while there are so much the potentials still not capitalised.

The aim of this Project is to present sectoral characteristics of the two regions and the conditions by which cooperation could be established between them. We consider cooperation mainly in the fields of common production, manufacturing and sale, and since Hungary as an EU member country has had an almost a decade-long experience in this matter, we have been especially focused on taking over Hungarian experience and capital transfers towards Vojvodina. This could facilitate entering EU market for Vojvodian farmers, producers, enterprises and other business subjects, as well as the sale of EU products on the Serbian market.

I. Sectoral and environmental analysis

1. Regional statistics referring to the sector

Regional statistics of agricultural sector in Vojvodina

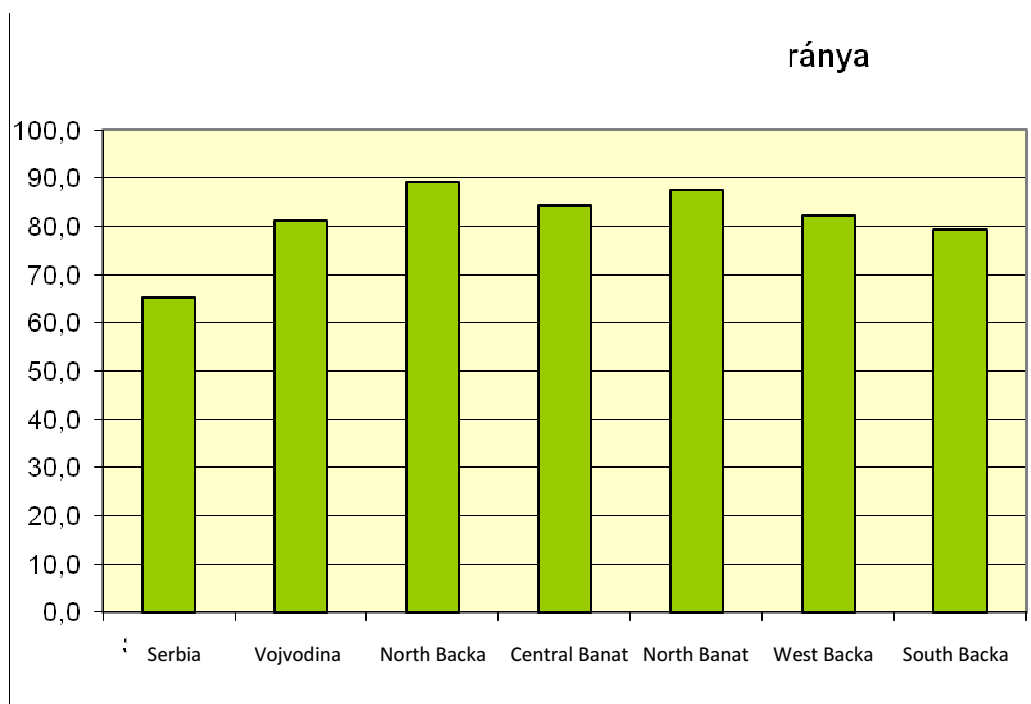
The proportion of agricultural areas is especially high in Vojvodina, as well as in certain districts (see 1. figure). This rate reaches or even exceeds 80% in the province as a whole and in all of its districts too.

The agricultural land area in Vojvodina is 1 729 000 hectares consisting of excellent quality soil types. From the agricultural land area 1 648 000 hectares are cultivated, which is 95.3% of the whole area. Arable land is prevalent in the cultivable area.

67.2% of the agricultural land area is owned by the total of 620 621 private farms. Most of these farms face serious problems for size-economy reasons, since their average territory is 3.52 ha and even this area is divided into 3 plots on average, which does not provide opportunity for well-organised production. Moreover, concerning their sources of income, most of these private farms have non-agricultural or mixed income sources. This means that agricultural production is only an additional source of income for them. Owners do agriculture only in their free time (moon light agriculture), which is then also visible from the results.

Proportion of private farms in the usage of agricultural land and in the production of most important crops is shown in 1. table and 2. figure. Almost $\frac{3}{4}$ of cultivation capacities are used by private farms. They give 75 or even more percent of cereal, vegetable, fodder crop, fruit and grape production. A slightly smaller production of industrial crops on private farms is the result of the fact that manufacturing industry prefers bigger suppliers. Most of the production of private farms is also handled by mediators that organise and support farmers, and this way they ease the work of manufacturers' purchasing departments.

1. figure. *Proportion of agricultural land*



Beside private farms there are 207 former co-operatives and 281 agricultural companies that have been reorganised, which means 488 big farms working with 624 000 hectares of agricultural land. Arable land takes 511 000 hectares from that amount. These big farms have 1000-2500 hectares of land on average.

Agricultural land usage and production structure on sown area

The characteristics of agricultural land usage are visible from the distribution of arable land by districts, municipalities and the most important crops. 3. figure shows the proportion of sown area in agricultural land. It is easy to see that in Vojvodina the situation is more favourable than in other parts of Serbia, however there are considerable differences

even between certain districts in Vojvodina. The cultivation rate is the lowest in Central and North Banat where the soil condition is unfavourable because of the widespread licks.

Analysing the proportion of the most important crops, we can state that cereals are predominant with 40-70% in certain districts, but even their average rate approximates 60% at Vojvodian level. The proportion of industrial crops reaches 20% in Vojvodina, and their production has an important role in each district. More that 18 000 hectares of orchards, then 10 000 hectares of vineyards, 71 000 hectares of gardens and 75 000 hectares for growing fodder crops also represent considerable capacities.

1. table. Proportion of agricultural land usage on private farms in the production of most important crops in Vojvodina

	Total area	Private property	%
Agricultural land	1781253	1260398	70,76%
Sown area	1574477	1178028	74,82%
Cereals	1027762	797225	77,57%
Industrial crops	382386	245173	64,12%
Vegetable crops	71189	62676	88,04%
Fodder crops	74975	64123	85,53%
Orchards	18578	14665	78,94%
Vineyards	9952	7413	74,49%
Meadows	40957	20777	50,73%
Pastures	105329	33558	31,86%

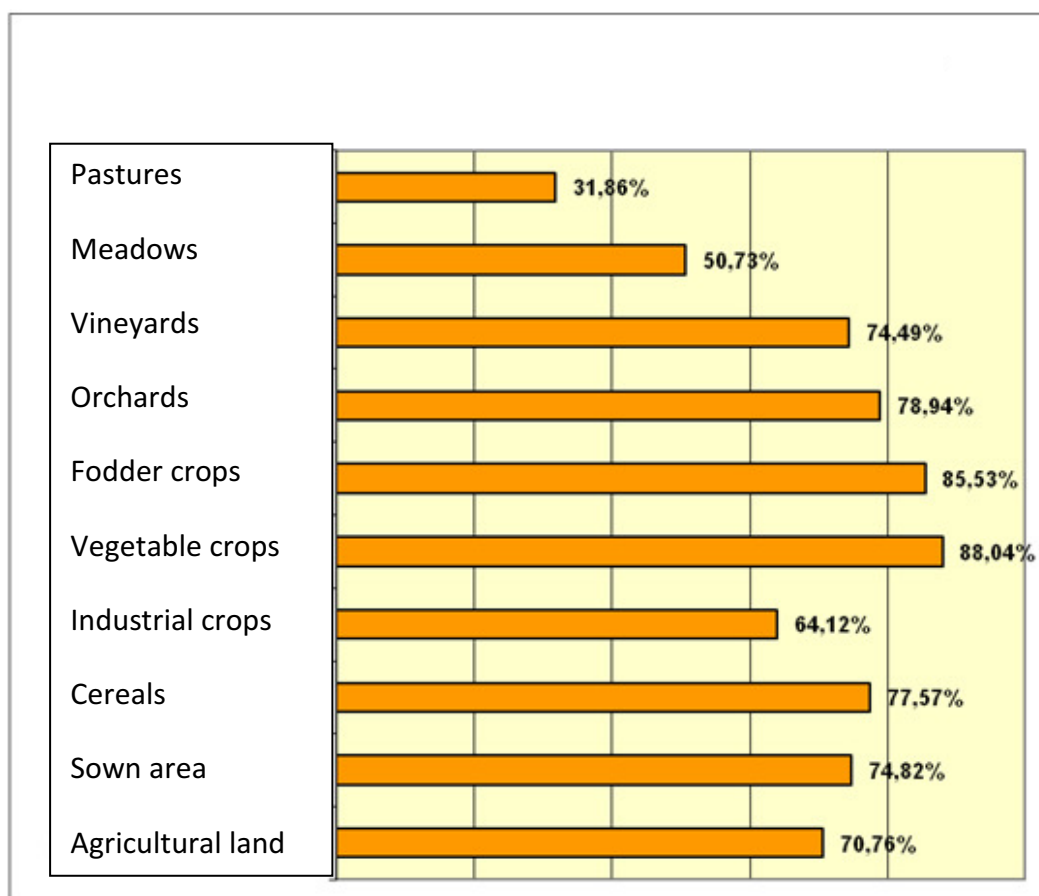
The production of certain crops can be characterised as follows.

The production of corn as the cereal grown on the largest sown area exceeds 600 000 hectares in the observed years. The oscillation of the covered area is relatively low, while the fluctuation of yield and total output is significant. The yield varied from 29 quintals per hectares in 2000 to 65 quintals in 2005, which shows quite big variations. This is mainly due to weather conditions, which could have been counterbalanced with irrigation. As a result of oscillating yield, the total output is also very variable.

As a result of price policy of former years, the sown area of wheat grew, then fell back and finally stagnated in recent years. The uncertainty of the purchase price and low profitability of wheat slowly makes its influence felt. Similarly to corn, total output and the

yield per hectare fluctuates within wide limits. In the observed period, the yield per hectare was only 23 quintals in 2003, which was an especially bad year, while in the favourable year of 2008 it exceeded 48 quintals.

2. figure. Proportion of private farms in the usage of agricultural land and in the production of most important crops in Vojvodina in 2008

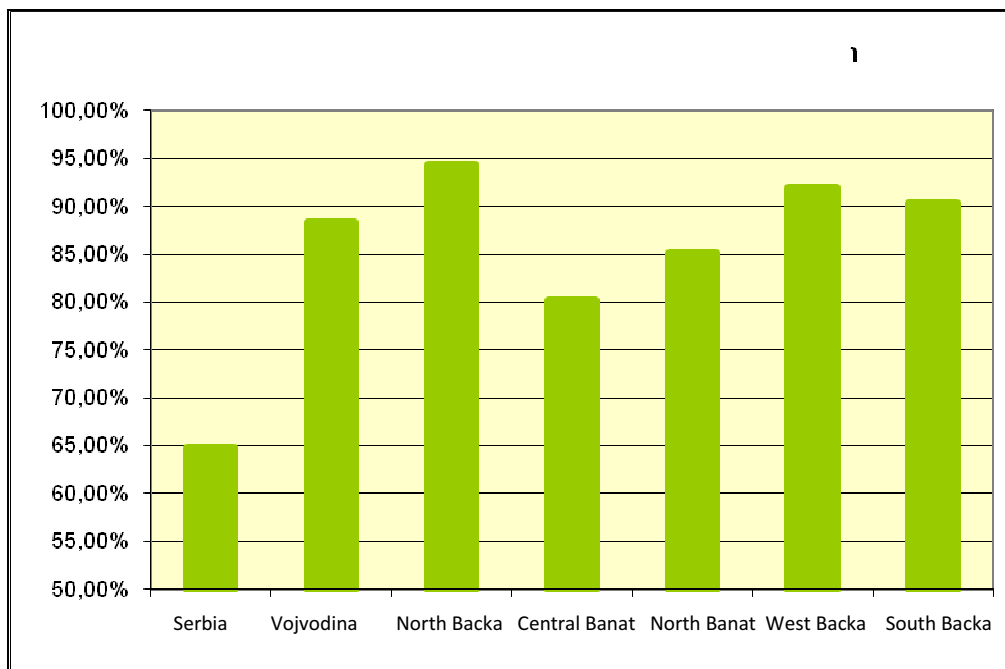


Sugar beet is an important industrial crop in Vojvodina having regard to the sugar-factory capacities. The sown area of sugar beet was oscillating in the observed period, and then increased due to favourable purchase prices and other advantages, while the yield fluctuated extremely from 247 quintals per hectares in 2000 up to 485 quintals in 2005. Similarly to corn, irrigation and the relating adequate production technology could stabilise the output.

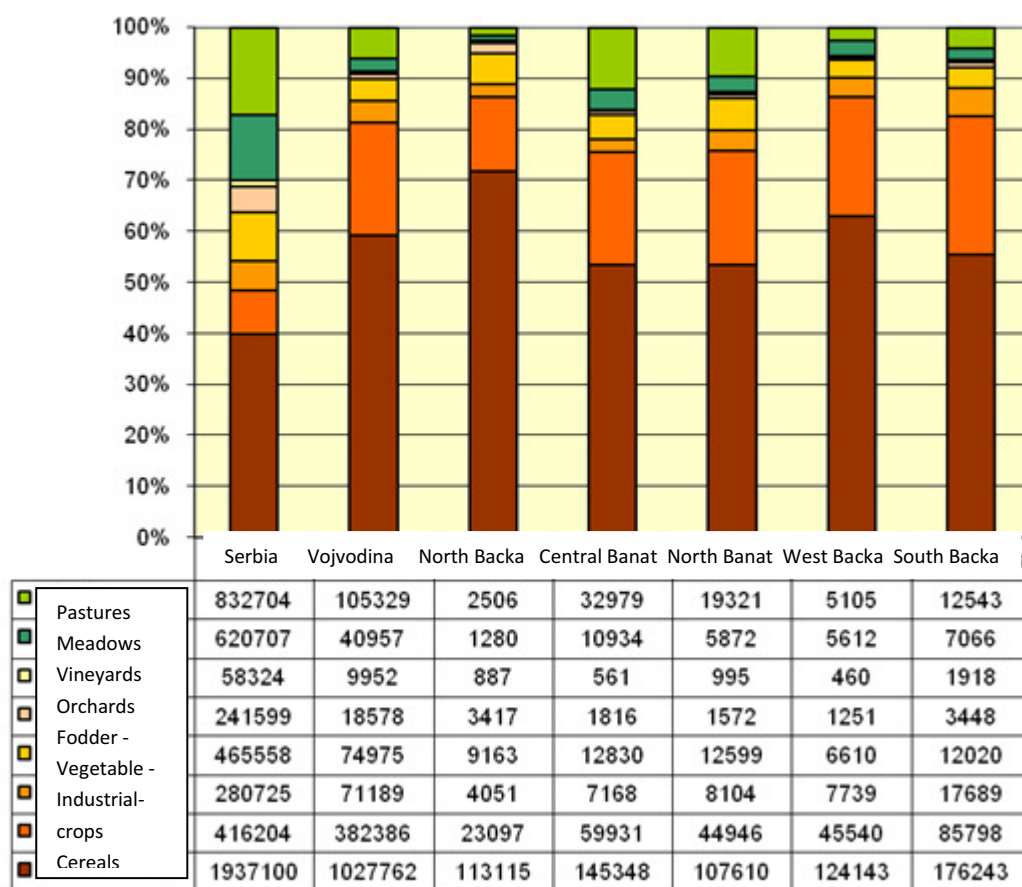
Sunflower is also an important industrial crop in Vojvodina due to the size of cooking oil producing capacities. Accordingly, the sown area of sunflower constantly exceeds 140 000 hectares. Unfortunately, the yield of sunflower also shows big fluctuations. While in 1999 the yield hardly reached 15 quintals per hectare, in 2008 and 2009 it

exceeded 24 quintals. As a result of area and yield oscillations, total output also fluctuates within wide limits, between 200 000 and 400 000 tons.

3. figure. *Proportion of sown area in agricultural land in 2008*



4. figure. *Proportion of important crops by regions in 2008*



Soybean shows explicit rise in sown area, increasing from 75 000 hectares in 1999 to 146 000 hectares in 2006, and its production area is constantly exceeding 130 000 hectares. At the same time, the yields are fluctuating surprisingly, since the yield in 2000 was hardly 12 quintals, while in 2005 it reached 28 quintals per hectare, being above 20 quintals since then. Naturally, the total output also varies within wide limits, 149 000 and 400 000 tons.

The sown area of potato is gradually decreasing from 23 600 hectares in 1998 to 17 500 hectares in 2009. Most of the territory of Vojvodina is less favourable for growing potato, while in Serbia there are some other regions with good conditions for growing potatoes, so these can also supply customers of urban areas in Vojvodina. Otherwise, as a result of unfavourable conditions, the yields are also oscillating, between 80 and 160 quintals per hectare.

The sown area of tomato, cabbage, kale and bean does not show fluctuations, but the yields do. The most eye-catching is the fluctuation of bean yield from 681 to 1435 kg. The

sown area of melon is constantly decreasing, mostly because of melon import from southern countries. At the same time, the yields are not only low, but fluctuating too.

Alfalfa has always been an important fodder crop in Vojvodina and it is one of the most important sources of proteins. Moreover, earlier the alfalfa grain production was also important. The sown area of alfalfa also shows decline, while the yield varies between 45 and 68 quintals.

It is practical to analyse yields in territorial breaking down as well. Statistical data enable comparison by districts. We can see that two districts in Banat are characterised by the smallest average yields, while North Backa, West Backa and South Backa have higher average yields.

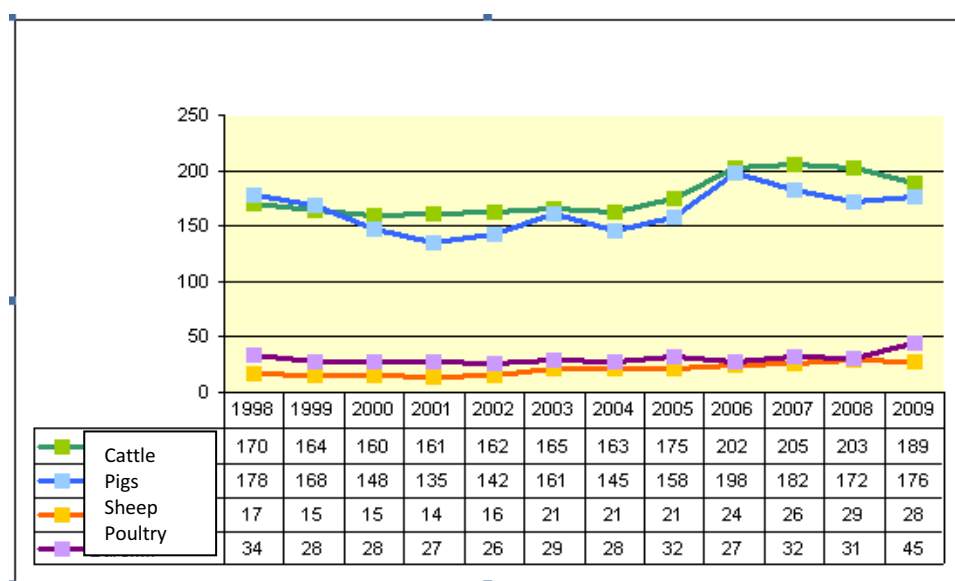
Basic data of livestock breeding

In Vojvodina, which is a grain-growing area, pigs are predominant, since their number approximates cattle even in livestock numbers. The number of cattle varies between 210 000 and 268 000 in recent years showing slight increase. Despite this we have to point out that this number is not sufficient as compared to agricultural area. With such stock we cannot sufficiently make use of rough fodder and agricultural secondary products. As a result of this, huge quantities of secondary products remain unused, and also the production of manure does not reach the required level. This situation influences production results as well. Intensive milk production with vast lactiferous stocks is an adequate partner of manufacturers, however small producers come to a more and more difficult situation. Moreover, we also have to reckon with the fact that the meat quality of lactiferous species is not marketable, while production should be developed in the field of meat production. Livestock breeding is characteristic of data shown in 5. figure, indicating the number of livestock by species.

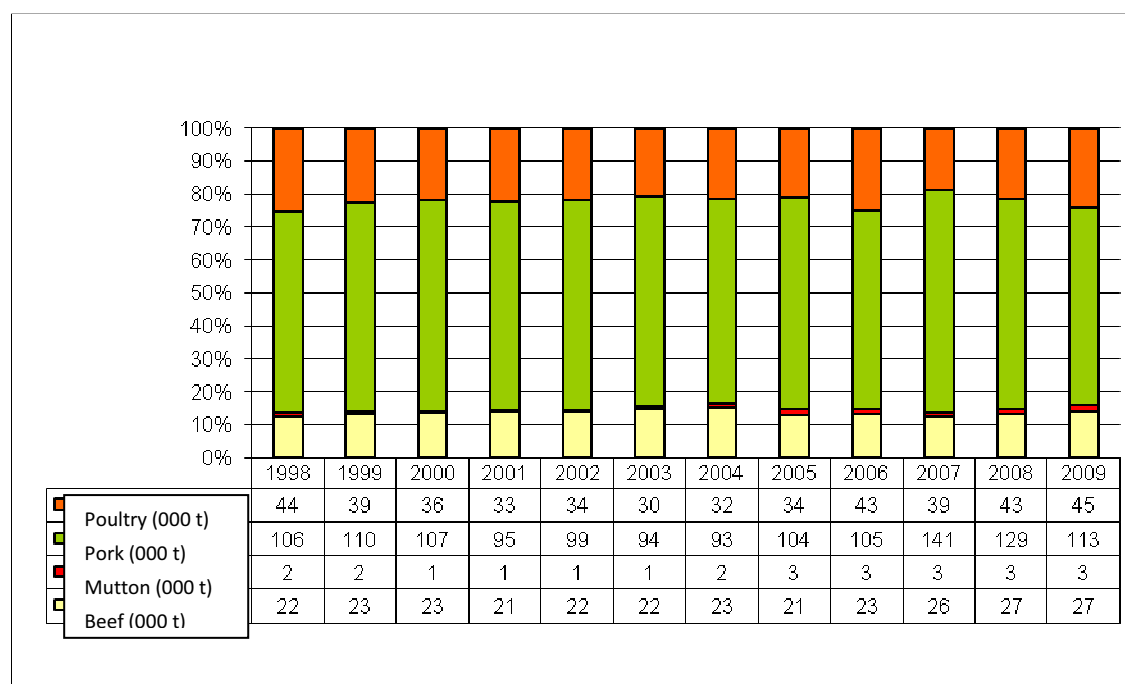
In the field of breeding pigs there was no considerable growth in number. The number of livestock rises or falls depending on changes in price conditions. Technical-technological development and stock quality of our pig breeding is far behind the countries that are present on the world market.

The number of sheep is relatively low, varying between 91 000 and 180 000. The limited number is the result of scarce pasture lands, and mutton consumption also does not present a market demand and does not generate positive changes. The number of poultry varies between 5.7 and 14 million.

5. fig. Number of livestock in Vojvodina between 1998-2009 (in 000 livestock units)



6. figure. Meat production in Vojvodina between 1998-2009



Regional statistics of agricultural sector in the Southern Great Plain Region

2. table. Agricultural land usage in the Southern Great Plain Region

Agricultural land usage	Percentage
Sown area	76,03
Forest	11,35
Uncultivated arable land	11,70
Reed	0,51
Fish-pond	0,41
Total	100,00

3. table. Per capita gross value added as a percentage of the national sectoral average in agriculture

	Central Hung.	Central Transd anubia	West. Transd anubia	South. Transda nubia	North. Hungary	North. Great Plain	South. Great Plain	Nat. sectoral average
Agric., forestry, hunting	28,2	110,3	127,4	145,9	67,6	133,1	185,3	100,0

4. table. *Per capita gross value added as a percentage of the national sectoral average*

Sector of economy	South. Great Plain Region (%)
Agriculture, forestry and fishing	185,3
Mining and manufacturing	59,9
Electricity, gas and water supply	56,9
Construction	71,7
Retail and wholesale trade; repair	62,3
Accommodation and food service activities	69,1
Transportation and storage Information and communication	53,1
Financial and insurance activities	43,8
Real estate activities, profess. sci. and technical activities	49,0
Public administration and defense; compulsory social security	65,4
Education	101,0
Human health and social work	92,5
Other service activities	66,5

It is visible even from these data series, how outstanding is the agriculture specific indicator of the observed region. This is a region traditionally prestigious of agriculture, however, we can see from the analyses of data series that it is a less and less significant sector.

The relative predominance of agriculture and the structure of business sectors in the region are essentially resulting from good-quality arable land. According to traditions, cultivation of grain crops and breeding livestock became significant. Food production in the region's cereal, meat, preserved-food and dairy factories makes 20-25% of the national production. The sandy soil in the western part of the region and the number of sunny hours being above the country average, widen agricultural potentials, giving space to grape, fruit and vegetable growing.

The gross volume of agriculture in Hungary after the millennium was salient in 2004 and 2008. In the year 2008, after constant decrease of the 2005–2007 period, there was a significant rise in production of 27%. This large-scale increase can be mainly explained with the volume increase of cereals and fruit exceeding 70%. Yet in livestock breeding the decline of recent years has continued.

5. table. *Land area by land use categories, 2008*

	Arable land	Kitchen garden	Orchard	Vineyard	Meadow	Agricultural land area	Forest	Reed	Fish-pond	Utilised agricultural land area	Non utilised agricultural area	TOTAL
SGP Region	1 026,2	18,7	15,5	25,1	229,9	1 315,4	232,6	12,9	8,1	1 569,0	249,4	1 818,3
Country total	4 502,8	96,1	98,5	82,6	1 009,8	5 789,8	1 884,4	59,4	34,7	7 768,3	1 535,1	9 303,4

From the Hungarian regions, the Southern Great Plain Region has the biggest territory of agricultural land. The area covered with arable land, meadows, orchards and vineyards is outstanding. It is in the first-second place compared to other regions.

The region is going over a period of continuous transformation. Agriculture is a predominant sector in all three counties of the region, however mechanisation and the limited demand for agricultural products do not justify keeping the former number of employees in this sector. The workforce released from agriculture should be engaged in other sectors of the economy, but this is still not happening at a required pace. Complex rural development, manufacturing industry based on agriculture and the introduction and establishment of other branches of industry are fundamental interests.

2. Historical overview of agricultural trade in the two regions

It is practical to begin this historical overview from 1945, the year when World War II ended. Although historical Hungary had already been dismembered in 1920 and this meant the collapse of the economic space with a thousand-year long history of organic development. In 1945, all the inter-war trade relations and cooperation was totally terminated between the newly created regions, crossed by new administrative borders. Vojvodina became the larder and resource-base region of Yugoslavia led by Serbian elite,

but without special social-economic-infrastructurel retransfer. The name Vojvodina can be defined only since 1920 as the Hungarian territory that had been annexed to Yugoslavia of that time. Backa became part of Hungary again between 1941-1944, as the part of Vojvodina between the Tisa and the Danube. However, the renewed Hungarian administration could not regenerate, relive past social-economic relations. This region was providing food during the world war, and the products were intended for supplying Hungarian and mostly German military forces. Yet the reintegration of the newly reannexed territories (Bacs Bodrog County and Baranya County) had begun even in this Hungarian economic situation, entirely adjusted to war times and German expectations.

In the post-war period, socialistic ideology, planned economy and membership in Comecon have considerably narrowed down Hungary's scope for action in food trade. It manifested in the fact that Hungarian government was not interested in economic, trade relations on national basis, neither in making deep economic-trade relations with the neighbouring country that was following a different path of socialism. Cooperation between companies was made difficult, since production based on centralised planned economy was hardly reconcilable with economic actors in collective property from Vojvodina having much greater freedom and power of local decision-making. This happened so in spite of the fact that Hungary could realise great-volume food production and considerable export during the period of socialistic economy. Although we must add that even Vojvodina was a region with pronouncedly agricultural and food-industrial character. So it was a self-sufficing region also participating in internal trade of food.

In this time, food-trade volumes between the two countries were insignificant. Furthermore, Hungarian food statistics had categorised Yugoslavia as a capitalist country. Therefore, there are no such detailed statistics and analyses of commercial relations of the two countries as for inner Comecon markets. From Hungary's aspect, Yugoslavia turned out to be an extremely rhapsodic food importer, so beside low volume they had also considered it for an unbalanced country. Goods exported from Hungary to Serbia were mostly eggs (30 million pcs in 1975), preserved vegetables-fruit, and non-food tobacco, fermented tobacco.

Between 1960 and 1990 Hungary was in the 3rd to 5th place in the world after Denmark and the Netherlands in net agricultural exports surplus per capita. So it had supplied 50% more population than its inhabitants. The proportion of exports compared to domestic consumption was 110-120% of cereals and oil-seeds; 180-250% of vegetables and fruit; 150-200% of wine; 350-380% of vegetable oils; 190-200% of beef and poultry; 135-140% of pork; 480-500% of mutton. The Comecon market functioned strictly based on

bilateral agreements and trade, where the inclusion of a third country was not acceptable by the system. Payment was done in rouble, which was not an internationally convertible currency. Certain Comecon members did not have what to do with their rouble surplus, so every country was more interested in making the trade balance of every two country operate at break-even. In case of food and agricultural products from Hungary export was predominant, materialised in low-processed and low-quality goods. The Soviet market required mainly such products. Thus Hungarian food industry was specialised in production of low added value, small capacities and poor-quality goods until the 1970s. After that Hungarian economic policy makers understood the disadvantages of production and trade exclusively within the rouble zone, so they began considerable technology and capacity improvements in food industry. As a result, they could enter the dollar zone of international trade with competitive products in the 1980s. The reconstruction of foreign trade geographic structure accelerated on in the second half of the 1980s. Since 1990, with the switch to settling in dollar and the collapse of Comecon markets, this process has accelerated. At the end of the 1980s the share of Central and Eastern European countries in exports and imports was 33-35%. By 1999, this rate fell to 12.4% in exports and 14.3% in imports. Thus 84% of all exports have now been oriented towards developed, mainly OECD countries, within that 76% to EU member countries' markets. In imports, the share of OECD countries reaches 75%, while EU countries take 70%.

By the beginning of the 1990s, official food trade between the two countries was terminated for two reasons: the UN imposed commercial embargo in 1992, and Vojvodina's increased exploitation had already squeezed its agriculture and food industry. The necessary vacuum of these times between the two regions was slightly loosened over the black market.

Serbia and Montenegro, then the Republic of Serbia have belonged to the non-categorised countries. Based on the existing statistics it can be said that there have been insignificant agricultural and food trade between the two countries. And concerning the Southern Great Plain Region and Vojvodina, it is even harder to express food-trade volumes of the two regions. Establishment of agribusiness cooperation, common networks and co-operations was not a priority in any of these regions.

For this reason, it is quite difficult to describe and explain historical aspects of food trade between the two regions or either between these countries. There is almost no data about agricultural and food trade between these countries, not to mention the two observed regions. Yugoslavia and today Serbia have never been among those groups of countries, which are usually used by analysts and statisticians (Comecon, capitalist, developing, EU

member, OECD, Central and Eastern European countries etc.). In Hungary, both in the period of socialist planned economy and of capitalism, as well as before and after accessing the European Union, there were only few groups of products and slight volumes of agricultural and food trade between the two regions. This fact proves justification of this project, since there are considerable unemployed potentials of agricultural, food-industry, production and trade co-operations between the two regions.

3. Capacities, characteristics of commercial infrastructure

Retail

Surveying the concentration of food-trade turnover is relatively the most general indicator of development level. However, currently the situation is not so easy, since it becomes more difficult to separate retail from wholesale in food trade.

The process of concentration began later – around 1989 – in commerce than in the industry. In this period in the European trade, market share of the TOP-10 countries was around 20% based on net revenue. Only few countries operated internationally. According to forecasts, about 15 multinational trade companies will cover 70-75% of the European market in the following 5-10 years.

Concentration and commercial turnover of consumer goods among new members of the European Union was the highest in Hungary (in 2004). In the 1990s the volume of food-retail turnover increased by 7-8%. It is closely connected to this tendency that there was a continuous decrease in the consumption of goods from own production.

Changes in Hungarian food retail for the past twenty years can be divided into five periods:

- Spontaneous privatisation: In the 1989–1990 period small shops became private property and new groceries were founded.
- Privatisation: in the 1991–1996 period there came to change in the ownership of bigger food-trade companies. Most of better located shops got into hands of multinational chains of stores. Part of small private groceries have remained and developed, while others were closed.
- Beginning concentration: The period from 1997 to 2000 began with the emergence of stores with huge area. It was characteristic of intensified Greenfield expansion and the pushing forward of purchase companies gathering smaller units.

- Intensifying concentration: From 2000 to 2006 the expansion of large-surface stores accelerated, and these were the obvious winners of the competition between small and large-scale trade.
- Decelerating concentration: Since 2007 the process of concentration has not terminated, but Hungarian food-trade market starts to reach its saturation. The process has decelerated, and we can see medium-sized discount stores filling market gaps. Although there are still some new large-surface stores, the volume of Greenfield investments decreases.

Concentration in Hungary reached such extent that after analysing inner structure of the market we can say that the trade of consumer goods can be considered for an asymmetric oligopoly. This structural form, which is further concentrated by purchase side towards supply side, enables customer side to enforce its strength.

The alteration in the proportion of the ten biggest enterprises in entire trade also indicates intensified concentration. Between 1997 and 2003 the turnover of the first ten companies trebled, and their proportion in total turnover increased from 48% to 89%. Meanwhile the proportion of stores led by these ten companies rose only from 19% to 22% by smaller numerical growth.

The development process of domestic retail is not only characterised by concentration that produced decrease in the number of stores, but also by new ways of business and types of enterprises – domesticated in the period after democratic transformation. The decreasing number of stores at country level was mainly caused by redirecting turnover into large-surface units, hypermarkets.

Supermarkets are still a significant market channel in Hungary, although with decreasing importance, in contrast to hypermarkets. Hungarian discount market experienced boom in the 1990s, followed by temporary stagnation, today prospering again due to German discount chains entering the market. Similarly to other segments of the economy, chances in the competition of small and medium enterprises are quite low compared to big companies. Small shops are facing difficulties in food trade as well.

Beside spreading of foreign chains of stores in Hungary, there are more and more food-trade chains and purchase companies in Hungarian ownership, created either with the transformation of current structures, or over the establishment of new companies.

The presence and operation of purchase companies boost the concentration of food trade. There are several types of purchase companies in Hungary. Some purchase companies

are also operating as a chain of retail stores. There are also examples when the food chain does not provide purchase only for its own members. The logistics of big chains of food stores usually have 100% centralised purchasing. Sometimes even a few chains form a single purchase chain, with one centralised warehouse, or one centralised and a few regional warehouses, depending on the structure of the chains.

Analysing changes in retail, we can forecast the following processes:

- intensifying expansion of multinational companies in retail,
- selection of domestic chains in Central-Eastern European region and on non-saturated markets, potential strengthened market position of remaining chains,
- newer, international expansion of companies operating discount stores.

Wholesale

One of the characteristics of the transformation of food trade, both in the 1990s and today, is that wholesale itself loses its importance, as well as that retail and wholesale functions are less and less separate.

Wholesale of nowadays differs from traditional one mostly in the following:

- Relation between producers and dealers is not inevitably based on warehouse stores, but it can also operate with printed or online product catalogues.
- Warehousing can be a wholesaler's task.
- The wholesaler can provide only transport services.

Further decrease in the importance of wholesale can be expected with:

- increasing role of own brands of processed goods in retail chains and
- strengthening of producers' and sales organisations and growing producers in case of fresh goods.

Therefore the remaining role of wholesale may develop in three directions, however all with numerous obstacles:

- supplying stores outside chains
- supplying Horeca (hotel/restaurant/café) sector
- providing foreign trade services

In case of supplying stores outside chains, C+C stores are competitors to traditional wholesalers. The turnover of stores outside chains has been decreasing for years, although not in absolute numbers, but in market share, so this is a narrowing market segment.

In case of Horeca sector, the threat to supplies enhanced with special services is in the more and more centralised purchasing in hotels, restaurants and public institutions.

In case of foreign trade, professional knowledge and relationships of exporters and importers may be capable of keeping markets, while threat is in internal circulation of commodities in multinational companies (manufacturers, retail dealers), which has become a realistic alternative after EU accession and considerable decrease of administrative barriers.

4. Transregional, international and food-trade volumes between Vojvodina and the Southern Great Plain

Agricultural production was one of the most important sectors in Hungary that brought foreign currency in the 1990s. Exports have increased as a result of export-pressure in food-industry companies at the beginning of the decade, but then it declined considerably. This was especially the result of collapsing former Comecon markets, as well as of decreasing production after careless privatisation. Between 1994 and 1997 increasing production and significant fall of inner consumption opened the door to repeated rise of export. However, data of declining 1999 show that agricultural export made only 8% of total exports. Saturated markets and non-competitive agricultural and food-industry goods from Hungary had led to this situation.

At the same time, the proportion of import increased considerably. This was essentially the result of weak market protection. Due to this, large quantities of meat, dairy products, apples etc. were imported that could have been produced in the country as well. However, importing goods with huge EU subsidies in their background was a cheaper solution, while chains of stores imported highly processed products.

Geographical direction of agricultural foreign trade shows that more than 90% of exports are towards European markets. EU members have become the most important foreign trade partners of Hungary since 1990. In exports: 48.8%, in imports: 37.2%. Goods imported from subtropical and tropic countries make significant share of imports.

The foreign trade turnover shows significant variation in case of almost all products. This is equally influenced by fluctuating agricultural production and rhapsodic capacity of markets, which relate back on production over the hardship of sale. The export of wheat, corn, sunflower and vegetables is basically influenced by crop fluctuations in the country

and the importing countries, while the export of processed goods mainly depends on market demand. The most extreme fluctuation of exports is characteristic to cereal sales.

Geographical direction of food export is one-sided: more than 90 percent is realised in Europe. Within that, the European Union is the main partner, which was the biggest trade partner of Hungary even in the pre-accession period with salient exports of \$1 631 million and imports of \$874 million.

Trade between Serbia and Hungary

We have only few data of economic cooperation, trade between the two countries, since Balkan Wars and Yugoslavia's disintegration reorganised the borders. As a result, data for Serbia are available only since 2005. Bilateral trade is quite a matter of instance for Serbia's economic problems and the delayed restructuration. The applicability of the available data is also questionable, since there are problems both with the categorisation and the measurement units of products. One example could be drawing together data for beverages and tobacco and expressing them in tons, or similar presentation of milk and eggs.

We can draw two conclusions from the trade of agricultural products:

- The trade of such products is a matter of instance, showing huge yearly oscillations, presumably resulting from temporary lack of goods on one or the other side of the border.
- This phenomenon is more understandable from the fact that the bordering parts of the two countries are agricultural and food-processing territories with considerable supply of goods. In other words, they are competitive on the market of agricultural products and food.

Concerning the future, these two territories may develop serious cooperation, since with the integration of production of both raw materials and final products they can obtain size-economy advantages on the international market.

Hungary is Serbia's fifth biggest import and ninth biggest export partner. In Serbia, and within that mainly in Vojvodina, there are about 500 small and medium enterprises in mixed, Hungarian-Serbian ownership.

6. table. Trade volumes between Hungary–Serbia in the 2005-2009 period – Import
 (tons)

Year	Food and livestock	Beverages and tobacco	Raw materials, except fuels	Mineral fuels and lubricants	vegetable oils	Chemical goods	categorised by material	Machines and transport means	Various finished goods	not classified	Total
2005	44700	1086	17510	80134	85	100792	109940	6638	6496	15	367396
2006	21114	1110	23578	181748	6	106079	116186	7465	4946	29	462261
2007	27847	2264	20157	335216	8	155212	145056	13564	7536	4	706864
2008	33714	2668	54403	391716	1	156916	125709	10191	5493	23	780833
2009	21734	3673	10680	278099	135	90958	115947	5634	3567	19	530447

(1000\$)

Year	Food and livestock	Beverages and tobacco	Raw materials, except fuels	Mineral fuels and lubricants	vegetable oils	Chemical goods	categorised by material	Machines and transport means	Various finished goods	not classified	Total
2005	23927	1143	5617	42006	113	52208	70609	46550	24823	155	267153
2006	17485	812	6202	69774	28	60729	78501	53262	19562	47	306403
2007	28164	1705	7748	224817	16	135604	141542	142673	38214	15	720497
2008	39326	2236	31018	348466	2	114362	128577	122186	29008	45	815225
2009	37825	2633	8097	142912	155	80933	91920	106602	19047	115	490239

7. table. Trade volumes between Hungary–Serbia in the 2005-2009 period – Export
(tons)

Total	not classified	various finished goods	Machines and transport means	categorised by material	Chemical goods	vegetable oils and fats	Mineral fuels and lubricants	Raw materials, except fuels	Beverages and tobacco	Food and livestock	Year
197347	18	1695	4096	72544	47984	409	175	24674	1005	44747	2005
229028	17	1992	9133	99656	67396	0	12845	10529	686	26776	2006
274954	23	2894	11405	101916	88515	2733	103	10364	3444	53556	2007
407515	44	3227	10778	79152	100026	4995	477	88290	6903	113623	2008
349756	10	3372	8737	43396	22574	3198	4845	153881	6650	103094	2009

(thousand USD)

Total	not classified	Various finished goods	Machines and transport means	categorised by material	Chemical goods	vegetable oils and fats	Mineral fuels and lubricants	Raw materials, except fuels	Beverages and tobacco	Food and livestock	Year
131195	28	10139	11963	53398	29200	320	824	4096	511	20717	2005
188258	59	13227	26311	84630	41314	1	6001	3905	291	12519	2006
248604	26	18475	36538	101280	50334	2658	2983	6063	1699	28548	2007
324794	187	16511	42958	103714	55395	6694	7064	5989	3696	82587	2008
255437	12	12564	34258	59698	17223	2648	54926	8310	3781	62016	2009

5. Background legal, accounting and taxation analysis, customs regulations, restrictions equivalent to duties, free zones, veterinary, phytosanitary and food safety regulations

Free movement of goods

The EU has averted obstacles to importing and exporting goods, so today companies can produce, transport and sell products anywhere within the European Union.

Harmonisation

Differences in technical regulations of Member Countries may obstruct trade; therefore the EU has passed harmonisation measures concerning several products, mostly goods presenting great risk. As examples we can mention drugs, vehicles, children's toys, chemicals, electronic and mechanic devices and medical equipment. Products made in conformity with the harmonisation rules may be sold on the market of any Member Country.

Standardisation

Since the 1980s the EU has developed a new approach based on standardisation in order to harmonise technical rules in Member Countries.

CE marking

The CE marking on products indicates that the product fulfils every relating requirements of the EU. Member Countries may not close their markets in front of products without CE marking except in cases when it is proven that the given product does not answer the rules.

Services

The freedom of settlement and the freedom of providing services are two central principles of the European Union playing important role in regulating the common market of services.

Establishing an enterprise

The Member States have introduced a one-stop system so that service providers can receive all relevant information in a single customer service centre, and all the required procedures can be arranged remotely, using electronic devices – without contacting various competent authorities.

Veterinary principles, important information

Hungary has no own veterinary regulation as it is regulated at Community level. In the field of international transport there are also Community regulations, as the Hungary–Serbia borderline is the border of the EU at the same time. So transport and letting in transit

food and other products of animal origin falls under the same judgement in case Hungary or any other EU country is the destination.

The general food hygiene regulation covers all the principles, procedures and processes, control and monitoring activities of this subject area. (HACCP is only a partial segment of this subject.) In the general regulation of food hygiene the 852nd chapter covers general rules, the 853rd chapter is about veterinary regulations, while the 854th contains methodology and application regulations.

There are the following large categories in the animal hygiene system:

- meat of mammals
- poultry, poultry meat, eggs and products from eggs
- meat and meat produce
- milk and dairy products
- fishing products

The European Union prescribes a so called “country list”, which contains the countries from where animal products may be imported, and regulates the products, groups of products per countries that are allowed to be imported.

In case of Serbia, livestock must not be imported to the EU. From fresh and frozen meat only mutton and beef is allowed. (Fresh meat must be stored on 4°C and frozen meat on -18°C.) Heat-treated and preserved meat products may be imported to the EU from Serbia. Products that are not allowed will not be let in to the territory of the EU.

There is also a so called plant list, the products of which slaughter-houses and meat processing plants are only allowed to be imported and sold in the EU. There are plants on this list, which are outside the European Union. There is cooperation between EU and Serbia in this respect, which operates the following way:

- in the first step the Serbian authority controls the plant
- the EU may accept it, or it can organise its own control
- after the EU's own control the plant gets on the list or not

The plant list of the EU may constantly alter over admitting new plants or the exclusion of old ones. Furthermore, the list of allowed products in case of certain plants may also be modified. The plant list of third countries is accessible on the following link:

http://ec.europa.eu/food/food/biosafety/establishments/third_country/index_en.htm

On this website, beside general introduction and the criterion of getting on the list, the plant lists may be browsed by countries or by sectors. According to this the following food-industry products may be imported from Serbia:

Section I: Meat of domestic ungulates (14/01/2011)

Section VI: Meat products – only heat-treated meat (10/03/2009)

Section VIII: Fishery products – all fresh and processed fish that is imported for food (23/02/2011)

Section IX: Raw milk and dairy products (25/04/2011)

In the category of animal by-products:

Section III: Other facility for the collection or handling of animal by-products (i.e. unprocessed/untreated materials) (04/03/2011)

Section IV: Processing plants (28/07/2011)

Section V: Pet food plants (Including plants manufacturing dog chews and flavouring innards) (04/03/2011)

Section VI: Game trophies plants (13/05/2011)

Section VIII: Fertiliser and soil improvers (04/03/2011)

In order to import food or raw materials to the EU, third countries must develop their food hygiene and health regulations. Additionally, the traceability of food from production, over transport and storage to consumption is a basic criterion. Third countries that do not develop their own controlling and monitoring system are not allowed to export food to the European Union. In case of Serbia currently that is the situation.

Phytosanitary principles, important information

Phytosanitary consists of two main activities:

- Phytosanitary inspections referring to certain plants. There is a specific list for these in the whole territory on the EU. Decree 7/2001 FVM regulates procedures, methodology and the list.
 - is there quarantine harmful organism (fungi, insects, viruses or other)
- Quality control based on sensory survey of the plant food and inspection based on labelling and documents. It is regulated with decree 543/2011 EK.
 - is the labelling appropriate
 - is the quality in accordance with the labelling
 - it must be clean, pure, free of soil, pest and insects

- instrumental sensory inspection

A provision of law determines which of the main control inspections must be done in case of certain plant product. In some cases, only one is needed, in some cases, both controls are compulsory. For example, it is prohibited to import potatoes and other potato products from Serbia. In Serbia, there is no such control system, which is acceptable by the EU. Decree 7/2001 FVM regulates what are the prohibited products from which countries.

Moreover there is the regulation of so called common entry document, regulating a more strict procedure compared to the above mentioned.

- It defines certain products and/or countries for which the Regulation (EC) 669/2009 is obligatory.
- It is applied in order to detect infections and manipulations.
- A sample must be taken from every fifth consignment and it must be analysed in a laboratory on the importers cost.
- The EU is often revising this regulation, easing or tightening the procedure for certain products and/or countries. The supervision is based on former statistics of such controls.

In case of plant hygiene, similarly to animal hygiene rules, traceability is the most important aspect. Countries that develop their own inner tracing system of agricultural and food products can more easily export a wider range of products to the EU.

There are three categories of goods entering the territory of the EU:

- Everything was found correct and the goods are admitted to EU
- Some suspicion emerged so an inspection is begun based on samples, but the authorities let is the goods to EU. If it is proved that it must not be put into circulation, the freight can be stopped anywhere in the EU, packed back in logistics and warehouse centres, or removed from the shelves from retail stores.
- If the goods are very suspicious, they are retained until the inspection is finished.

The decision is made after that whether to let in the EU or return from the border.

In case of perishable goods, there is no truck stop. Border crossing points are open twenty-four hours, but if the goods are neither urgent nor perishable, the consignment may go only to the nearest parking lot.

Decree ISPM 15/ENSZ-EGB regulates the quality of packaging and integument thicker than 6 mm and made of wood, in case of any goods – even non-animal or plant

origin. The wooden wrapping material itself is a potential source of infections and pathogens. So these materials must be treated. Every certain pallet and wrapping material must be heat-treated, the certificate of which must be burnt into the surface of wood together with information code of the treatment method, the producer and the treating company.

In general, there is separate regulation of every certain plant product. These regulations are constantly changing, so before exporting goods to the EU, it is advisable to inform in the plant hygiene sub-office at the Roszke border crossing.

Opportunities for foreign investments in Serbia

As a general rule, foreign investors fall under judgement at national level, so if it is legally not defined otherwise, they are in equal position compared to domestic individuals and legal entities having the same rights and obligations.

Concerning the rights of foreign investors obtained over their investments, they enjoy complete legal security and legal protection in terms of legislation. The acquired rights of foreign investors received during the registration process of their investments must not be narrowed even after changes in legislation. The investments of foreign investors and the assets of companies with foreign participation cannot be subject to expropriation or other similar state measure, except in cases of public interest defined by laws, along with complete compensation.

Foreign exchange regulations have also become quite liberalised recently. The foreign investor is free to convert its cash to foreign currency in relation to payments of the investment, and it may transfer it to abroad just after the tax payment and other obligations in Serbia have been fulfilled. Companies with foreign participation are free to perform payments within their foreign business relations.

Corporate law

According to the Serbian legislation there are four groups of economic subjects. (1) Business companies: unlimited partnerships, limited partnerships, share companies and limited companies. (2) Special forms of legal entities established as share companies: banks and other financial organisations, other financial institutions, insurance companies and stock exchanges. In the rest two groups are (3) public companies and (4) cooperatives. All the above mentioned are legal entities.

But foreign investors have the right to open so called representation in Serbia, in case they do not want to establish a business company in the beginning. It must be

registered as a foreign representative office at the Business Registers Agency. The representation is legally not independent of its founder, it is only preparing contracts and businesses to be concluded, but it cannot conclude contracts itself.

Employment law

As a general rule, this law refers to every employee working in Serbia irrespective to his/her citizenship. Every person above 15 may be employed. Employment is established with signing an employment contract between the employer and the employee for a determined or undetermined period. The contract may prescribe probation up to six months, in case of which the period of notice is at least 5 days. The working week lasts 40 hours in Serbia, while paid holiday is 20 days. The Serbian employment law also knows the institution of minimal wage. The amount of contributions paid by the employer is currently: 22% pension contribution, 12.3% health insurance and 1.5% unemployment contribution. As a general rule, the employer must close a collective contract with the employees.

Law of taxation

The Serbian tax system is quite simple and liberal. We can say in general that tax rates are much lower compared to other countries of this region. Serbian corporate tax is the lowest in the region. Its base is the profit realised during the business year (which is the same as the calendar year), and the tax rate is only 10%. The capital return tax is also not high, being only 20%. The corporate tax law contains several motivating regulations, from which maybe the most important is that the taxpayer is freed of the corporate tax liability for 10 years in case it invests at least RSD 600 million in Serbia and employs regularly (not part-time) at least 100 employees. Additionally, investors get tax allowance for investing in underdeveloped parts of the country or if performs concession activities.

Personal income tax is not high either, being only 14% on wage income and 20% on other incomes. In this case the tax base is again the earnings of the calendar year. In case of wage income, it is the employer's obligation to withhold the advance tax payment from the gross income. Moreover, there is a kind of social tax or yearly tax for individuals, whose total yearly income realised in Serbia and anywhere in the world exceeds the quadruple of the average Serbian yearly income (in case of Serbian citizens) or is ten times higher (in case of foreigners). The rate of this special tax is 10%.

The subject of the value added tax (PDV) in Serbia is the trade of goods and services and the imports. PDV must be paid by everyone dealing with the trade of goods and

providing services. The tax base is the value of goods (in case of imports duty and tariffs are also included). The general tax rate is 18%. The exception is a list of goods and services defined by law, for which the tax rate is 8% or 0%.

Beside the above mentioned, we have to mention two more taxes. One of them is property tax, the extent of which is 0.4% of the real estate's value at yearly level. The other one is the excise tax. In accordance with the law, for the import of some products, such as petroleum products, tobacco products, alcoholic beverages, coffee, and some of the raw material used in soft drink production, excise tax must be paid. In addition to these tax types, investors still must reckon with local taxes, which vary by municipality and the most typical one is the land-use charge.

Establishing free zones – free-trade agreements

The Serbian legislation enables the establishment of free-trade zones. Unfortunately, these zones founded in accordance with the law are being closed one by one, since they cannot fulfil legal requirements, namely to be profitable. Currently in Vojvodina, there are two such zones, one in Subotica and the other in Zrenjanin. It is worth mentioning that the European Union is Serbia's biggest largest partner. The Union approved a favourable judgement system for Serbia in 2000 for exporting goods to the EU market for a five-year period, which meant export without import tariffs and quotas except for some products from textile, wine, fish, meat having quotas, though textile has been exempted since then with an agreement in May 2005. Concerning other countries of the region, Serbia has valid free-trade agreements with Bosnia and Herzegovina, Moldova, Croatia, Albania, Bulgaria, Macedonia and Romania. These contracts are the result of Brussels Stability Memorandum from 2001. Currently a multilateral agreement is being developed, which could replace these bilateral contracts in the region.

Serbia also has a valid free-trade agreement with Russia, but according to some experts, it still has not adequately capitalised the chances provided by the agreement. Serbia deserved the so called "normal trade relations" status from the United States of America in December 2003, which is equivalent to the former "most favoured nation" status. Due to this goods from Serbia are not discriminated at imports any longer. But the actual prosperity began in 2005, when Serbia got the GSP system of duty concession for 4650 products. The duty-free export mostly refers to industrial and agricultural products. The precondition is that the product must be delivered directly from Serbia and at least 35% of its value must be added here.

Food safety

From 11th June 2011, the HACCP standard of food safety is obligatory in Serbia as well. Those who do not obey these regulations may be closed down by the inspectorate. The Serbian law on food hygiene was passed two years ago, which enforced the HACCP system.

According to HACCP, full traceability of food must be ensured in food production and distribution processes and, if necessary, quick action or even recall of goods, in order to prevent harm to consumers' health. The danger can be biological, chemical or physical material present in food, or the condition of foodstuff, which can lead to harm to consumers' health. The danger is always the health hazards of the materials in food, but the regulation also includes other details. HACCP is the abbreviation of Hazard Analysis Critical Control Point. It became obligatory in Member Countries in 1998. It was developed by the UN food and health organisation because of former food scandals. Quality assurance systems in food trade are based on it all around the world. Nothing can get on the shelves of big chains of stores or small groceries unless it fulfils HACCP requirements.

Every participant of food production chain in Serbia must perform its work processes according to HACCP requirements since 11th June 2011. The experience of informative previous surveys shows that in most cases they have understood the advantages and importance of introducing this regulation. Those who have decided not to apply it, exclude themselves from food production chain, and they will not get permission for operating in the future. The inspectorate denounces them to authorised prosecution and court, and their task is to cancel the licence according to the law. In case of those, who have not finished the process yet but stated to obtain necessary documentation and to reorganise, they will get an extension of time. Of course, it is determined for everyone separately, during which period they must rectify omissions.

6. Presentation of financial and banking sector, and of the system of state agricultural subsidies

Financial system in Serbia

Currently there are 34 banks operating in Serbia with domestic or foreign capital, 20 of them with foreign majority, 5 with domestic private capital, and 9 in state ownership. 8 foreign banks have representations in Serbia, the banks and the subsidiaries have a total of 3200 branches, which shows that the system of branches is quite developed in the country.

The total assets of banks sum €9 billion, while the household savings reach €2.3 billion and this sum is increasing. There are 26 000 employees in the banking sector, approximately 3.8 million bank cards, which can be used in 1000 ATMs country-wide.

The main activity of banks is crediting the economy and households, providing payment traffic services and other financial services. In a regional comparison, interest rates are higher than the average, but lower than they had been in former decades. The work of banks has greatly been facilitated over legislation – with the banking law, law on leasing, insurance and mortgages. These laws help the banks collect their receivable claims.

The National Bank of Serbia is the country's central bank, the main task of which is to support price level and maintain financial stability in the country. It defines and implements monetary policy, subscribes the exchange rate of dinar (RSD), controls payment traffic, supervises commercial banks, insurance companies and other financial service providers, and mints and issues money. The National Bank is operating independently.

We can say that the transformation of the Serbian banking system has been finished by the end of the decade; most of the Serbian banks have been bought out by foreign banks during the 2000s.

Banks have important role in financing agriculture. Since most of the banks are owned by foreign multinational companies, their goal is to maximise profits, mainly over lending out credits. Part of the credits given to the economy is used for financing agricultural production and the relating food-industry. Some banks have developed special products for crediting agriculture, and over penetrating a specific market gap, they accept crediting such private farms that do not carry out any book-keeping and other tax-related activities.

Financial system in Hungary

The Hungarian National Bank is the monetary authority of the Hungarian financial system. It was established in 1924 as a company limited by shares, and it became the central bank of the Republic of Hungary. The state solely is the central organ and owner of the foreign exchange controls. The representative of its legal personality is the Minister of Finance. It is a non-profit organisation.

Tasks of the central bank:

Key tasks:

- external-internal protection of currency purchasing power
 - internal purchasing power in the inflation

- external purchasing power is the exchange rate
- providing solvency of the country
 - regulates demand and supply of money
 - ensures financial balance
 - balance of goods and purchasing power ($>$)
 - budgetary balance (income $<$ expenses)
 - balance of international current account (international income $<$ expenses)

Exclusive tasks:

- issuing money (emission)
- retiral of money and banknotes (demission)
- technical tasks (planning, keeping money, invalidating money, supplying banks with money etc.)

Management tasks:

- regulating demand and supply of money and credits
- control of the quantity of money in circulation
- supervising the operation of commercial banks
- formulating monetary policy

Credit institutions:

Characteristics of banks:

- They provide complete financial services, e.g. collecting deposits, providing credits, keeping accounts, domestic and foreign payment transactions
- They operate as stock companies
- Their subscribed capital must be at least 2 billion HUF

Characteristics of specialised loan-offices:

- Their activities and the clientele are restricted
- They operate as stock companies
- Their subscribed capital must be at least 1 billion HUF

Characteristics of cooperative loan-offices:

- Their activities are restricted only to members of the cooperative
- They operate as cooperatives (at least 15 members)
- Their subscribed capital must be at least 100 million HUF

System of state agricultural subsidies in Serbia

Not treating theoretic background of subsidies or their positive and negative effects, we have to state that the Serbian system of agricultural subsidies is still not comparable with the system in EU, and its accounting relations are not significant either. For this we primarily have to understand the situation of agriculture in Serbia.

Serbia's most important agricultural and food-industry target market consists of former Yugoslav countries and the European Union. Naturally, the Serbian agricultural and food-industry surplus does not make it for an important actor on EU market, but this export is important for the country. Thus agriculture – despite its unfavourable position and backwardness – plays an important role in the country's achievement in exports.

At the same time, there is the phenomenon of artificially keeping the prices of agricultural and food-industry products at a low level on the domestic market in order to preserve social peace. Such pricing policy influences the observed region very seriously, since it is a country region producing agricultural surplus. Actually, regions producing agricultural goods have to pay for the consequences of recession. On the one hand, suppliers of the agriculture draw away income from it over the gap between prices of agricultural and industrial products (parity), while on the other hand, part of the income flows to non-agricultural regions because of low domestic prices. These statements are also true for the observed region, since its suppliers and the customers of its surplus are mainly outside of the region.

Regulation of agricultural subsidies is based on the Law on Agriculture and Rural Development (Zakon o poljoprivrednom i ruralnom razvoju). The 8th section of chapter III of the law defines the tasks of the Directorate of Agricultural Payments (Uprava za agrarna plaćanja) concerning the subsidies, while the 9th section of chapter IV enumerates the types of subsidies. According to that there are: direct, market and structural subsidies.

Direct subsidies are premiums, production subsidies, rebates and allowances to non-producing farms. Market subsidies are export subsidies, compensation of storage expenses and loan subsidies. Structural subsidies are support for rural development programs, for farmland protection and soil improvement, and institutional grants.

The law declares that the Government subscribes the types, sum and users of subsidies for every certain year. It allows the province and the municipalities to establish a supporting institution and finance it from their own sources. However, the scarcity of own incomes and the centralised distribution of funds from the central budget minimise these

opportunities. It follows from this that in this field, farmers must face uncertainty instead of predictability. New decisions are made every year depending on the amount of available funds from the budget.

The law defines the circle of potential users in theory, which are producing and non-producing family holdings. (The latter are practically the self-sufficing family holdings.) Every farm gets its categorisation during registration, according to the law. Registration refers to companies, farmer cooperatives, other legal entities, schools, monasteries, churches and other organizations as well, beside entrepreneurs and agricultural producers. The law does not treat the relation between registration, retirement insurance and obtaining subsidies, but the procedures are well-known from everyday practice. Farms can be registered irrespective to farmers having retirement insurance or not, but they can get subsidies only if they prove the payment of contribution. Accordingly, those who want to get subsidies, have to pay their contribution to retirement insurance.

Deciding on agricultural subsidies is the task of the Directorate of Agricultural Payments and its branch offices. Both the applicants and the Directorate have to comply with the respective decrees. Decrees regulating the system of subsidies are issued in a great number. During the first two and a half months of 2011 there were 10 such decrees issued (so one every week), which were regulating certain types of subsidies.

The National Agricultural Program (Nacionalni program za poljoprivredu 2011–2013 – <http://www.minpolj.gov.rs>) presents changes in the budget of the Ministry of Agriculture, Forestry and Water Management relative to the amount of national non-financial and financial purchases.

It is easy to see that even in comparison to the incomplete budget, the agricultural budget is too low, much lower than its contribution to GDP, as it can be seen from 9. table.

9. table. *Changes of the agricultural budget*

Year	Amount of national non-financial and financial purchases	Budget of the Ministry of Agriculture, Forestry and Water Management	
	thousand RSD	amount in thousand RSD	%
2004	362 045 252	18 059 553	5.0
2005	400 767 778	16 269 962	4.1
2006	505 820 602	23 593 481	4.7
2007	595 517 786	21 410 029	3.6
2008	695 959 076	27 634 337	4.0
2009	719 854 143	15 964 071	2.2
2010	762 971 000	19 907 945	2.6

10. table. *Share of agriculture in the Serbian GDP*

Year	GDP in prices as of 2002, million RSD	Gross value added of agriculture, forestry and fishing, million RSD	%	% of change
2004	1 079 044	143 545	13.3	
2005	1 139 590	136 500	12.0	- 4.9
2006	1 198 965	136 205	11.4	- 0.2
2007	1 281 695	125 577	9.8	- 7.8
2008	1 352 418	136 316	10.1	8.6
2009 (estim.)	1 311 865	139 340	10.6	2.2

Source: Statistical Office of the Republic of Serbia

After comparing the two tables we can say that agriculture's contribution to GDP is hardly decreasing, while the proportion of agricultural budget is decreasing constantly.

We have no comprehensive data on giving subventions to agriculture. Direct support for purchasing agricultural inputs per hectares has gradually increased for the recent years (area payment):

2007	8 000 RSD/ha
2008	10 000 RSD /ha
2009	12 000 RSD /ha
2010	14 000 RSD /ha

However, knowing price levels, the prices of agricultural inputs, this subsidy is quite moderate. Even when expressed in €, it is incomparably lower than Hungarian subsidies. There are some other subsidies as well, but we have no data of these product-based subsidies. Beside supports, the National Program also foresees some other stimulation, in harmony with the Law on Agriculture and Rural Development. Some of them are:

- Stimulation of modernisation and standardisation in agriculture and food industry, and improving market potentials
- Stimulation of development of manufacturing industry and marketing activities
- Revitalisation and restructuring of rural farms
- Diversification of rural income

Amounts foreseen for stimulating the first and the second areas are the bigger, although even these are quite low compared to the needs, as it will be visible from the following tables.

Within the stimulation of modernisation and standardisation in agriculture and food industry, and improving market potentials, there are four target areas defined:

1. Stimulation of investments at cereal and industrial crop producers
2. Stimulation of investments at dairy farms
3. Stimulation of investments at meat producing farms
4. Stimulation of investments at farms growing fruit, grape and vegetables

11. table. Stimulation of modernisation and standardisation in agriculture and food industry, and improving market potentials between 2011-2013 in thousand RSD

Year	Total investment	From national sources	Farmers – investors
2011	3 600 000	1 800 000	1 800 000
2012	4 200 000	2 100 000	2 100 000
2013	4 800 000	2 400 000	2 400 000
Σ	12 600 000	6 300 000	6 300 000

According to the plans, funds will be divided among these four areas in the ratio of 25-5-5-25%.

Within the stimulation of development of manufacturing industry and marketing activities, there are three target areas defined:

1. Stimulation of investments in milk processing, marketing of milk and dairy products
2. Stimulation of investments in meat processing and marketing of meat products
3. Stimulation of investments in fruit and vegetable processing and promoting sales

The foreseen amount of funds and their sources are visible from the table.

12. table. Stimulation of development of manufacturing industry and marketing activities between 2011-2013 in thousand RSD

Year	Total investment	From national sources	Farmers – investors
2011	1 200 000	600 000	600 000
2012	1 400 000	700 000	700 000
2013	1 600 000	800 000	800 000
Σ	4 200 000	2 100 000	2 100 000

Funds will be divided among these three areas in the ratio of 30-30-40%.

Taken all in all we can say that these subsidies and stimulation cannot improve much on the weak position of agriculture and manufacturing industry.

System of state agricultural subsidies in Hungary

The accepted definition of subsidies existing in the European Union says:

“Subsidy is the name of all donations and premiums that can be expressed in terms of money, given by the Community or some of its financial sources to Member Countries or their regions for specific industries, enterprises, or a certain circle of enterprises, as well as – in case of some special programmes – to individuals.”

The concept of granted business unit can also have a wider interpretation. Among them are public companies, corporations, individual proprietorships, as well as non-profit organisations.

Thereafter, with the well - known agricultural support system the project no longer deal.

Accounting rules of subsidies

Accounting settling of the grants received is different depending on whether:

- it is accounted in the firm to the benefit of net assets
- it is accounted in the firm to the benefit of the outcome or not
- it is given in cash or not
- it is given for development purposes or the subsidy covers costs, expenses
- it is a grant given under legal regulations or based on a contract.

7. Short and medium term forecasts of global agriculture and agricultural trade

Before analysing agribusiness forecasts, we deem it necessary to enumerate all the factors that influence the tendencies of international food production and trade.

Environmental factors:

- accelerating erosion of soil
- decreasing water resources
- global warming
- production of biodiesel causes cutting down rainforests

Social factors:

- growing use of land for non-agricultural purposes
- increasing population and welfare
- stagnating yields in developed countries
- increasing energy costs
- with the growing population the need for inhabitable areas is also rising

So in the current situation, it comes to more and more cases when people rise against their dictators reigning for a long time, in especially over-populated countries without goods for export, where the own natural resources have already been exhausted while they are unable to be self-sufficient, their economy is uncompetitive, but the country has a strategic geographic position. For example, Egypt has become insolvent, while they cannot expect considerable foreign investments in the country. Tourism becomes disloyal in no time, but returns only after a long time, so the economy cannot be based exclusively on tourism.

Several countries of the Middle East have to face these problems and can be characterised by these parameters.

In our opinion, it comes to a contradiction in simplified handling of demand and supply as to, while the population grows generating increasing supply in food trade, for the increasing number of – environmental, energy, financial, political, economic, natural – crises an increasing part of the world's population lives in poverty. With the growing food prices solvent demand for food is falling. (Similar processes are predicted in case of oil.) So it is very difficult to foresee, which of these opposing processes will prevail. Though it is probable, that food prices will rise monotonously with ever bigger oscillations.

In the long run, it will not be enough to regulate markets and develop cooperation between countries. Because of the growing population, intensifying food production cannot be put off any longer. Some French experts suggest increasing the world's agricultural output for not less than 70 percent by 2050, although it is hardly feasible without stopping stimulation of biodiesel production that makes food production non-competitive, and without relaxing restrictions relating to the production of genetically modified crops.

It could be a solution for the target area of this project if they increase the proportion of local products and develop regional marketplaces as soon as possible. Organic farming in locale could prevent the catastrophic consequences of a potential global food crisis in the region for the next 40 years. The proportion of arable land in agricultural areas should be increased. Speculative impacts and the influence of foreign interests should be minimised. Food production must not serve energy production even in the future. The territory of energy and food plantations in the region must be harmonised. In order to ensure food safety, agrarian society must be preserved; the production-cultivation knowledge base must be protected and developed.

II. Development strategy of sectoral commerce

1. Targeting

Considering the objectives of this project and analysing the current situation of agriculture and food industry in Vojvodina and the Southern Great Plain, the only solution for breaking free from the present situation is in agriculture and food industry based on cooperation, as well as in the development of cross-border trade. This objective has been divided to the following partial goals:

- Development of cross-border trade based on the strengthening of local economy
- Developing agribusiness in the border region in order to utilise economic, infrastructure and human resources capacities
- Mobilising internal resources in order to capitalise production and sales capacities
- Improving income attracting capacities of the region with the development of trade sector

All four partial goals have common background, which is the increase of trade and movement of goods relating to agriculture and food industry along the Serbian-Hungarian border. We have to achieve movement of all of the agricultural products, final products, and input materials of production and manufacturing over the border by creating fundamental conditions. For this it is necessary to know factors and capacities of production of raw materials, as well as the manufacturing, logistic and trade capacities of the two sides.

It is especially important to demolish the border as a limiting factor, which will be, knowing Serbia's current status outside the European Union, a complex and demanding task. This process is not the task of this project or these project partners. Results can be expected only after the alteration of legislation in the Republic of Serbia, resulting from negotiations between Serbia and the European Union.

The strategy developed within this project can be an appropriate framework to developing institutional relations and connections between producers, manufacturers and dealers, which could be properly utilised in agricultural co-operations after the administrative boundaries of cooperation between the two countries are demolished.

Until then, these relations should bear fruit in preparation with results that help all of production systems, food safety systems and different logistic systems become harmonised, but it is inevitable to mobilise and better utilise currently dormant inner resources.

In the preparatory period the emphasis should be on training farmers, and here emerges Hungary's almost a decade-long experience, the transfer of which is quite necessary for Serbian farmers, who do not know production regulations of the European Union, nor the methods, background and quality assurance regulations of food industry.

2. Strategy development

For the realisation of the above mentioned system of goals we have to determine an institutional framework, which could develop these planned activities to detailed projects and can resolve the execution of these projects, their financing and follow-up. The following strategic system is necessary for this:

- Development of horizontal and vertical co-operations: horizontally they are cooperatives, vertically they are clusters.

In Serbia and Hungary, similarly to many other countries, it has been realised that for developing the economy it is not enough to use former economic planning practice, but following the practice of developed countries, new methods, development and economic development practices should be utilised, which require similar, or often even less resources, resulting in considerable improvement and enabling faster structural change.

The simplest and relatively capital saving solution for the burning problems of farmers is establishing cooperatives. On the one hand, it facilitates problems with size economy on supply-side and with the sale of goods, while on the other hand, it treats even problems with holding structure and market position, even if it cannot resolve them.

Following tried and tested solutions from Europe and other parts of the world, it is necessary to establish Producer and Marketing Cooperatives (PMC) for purchasing, organising production and sale of goods. Such cooperatives resolve the lack of capital to an extent, with joint funding, common procurement, joint use of equipment and reducing production expenses. They also facilitate entering the market, as members can produce marketable products if they follow good agricultural practice, quality assurance and the common solutions for marketing problems.

Preconditions of establishing new types of co-operatives

Currently the biggest problem of the operation of agricultural cooperatives is that none of them operates based on basic principles of cooperation. If we analyse the operation and management of Serbian cooperatives in Vojvodina, we see that there are “state” cooperatives, where employees have management rights while the member farmers have not. In case of “private” cooperatives the operation is similar to an enterprise and they do not follow the principles of cooperation. Equally important question is the unresolved status

of the cooperative's property, which can obstruct developments and often even the operation.

For resolving these problems and providing necessary background for developing cooperative sector, the Serbian law on cooperatives was passed in 2006, regulating the following questions:

- founding cooperatives
- legal status of their members
- management and organs of cooperatives
- their operation and assets
- funds, dividing profits and financing losses
- keeping business books and compilation of financial statements
- termination of cooperatives
- association of cooperatives
- screening cooperatives

According to the law, cooperatives are based and operate on voluntary principle. Further principles are open membership, equality, democratic system, equal right to manage, providing information and trainings to members, and domestic and international relations between cooperatives.

The original capital of the cooperative as a legal entity is the founders' stake. This stake can be in cash or not, and the amount of the least stake is defined by cooperative rules. The founder has ownership over the cooperative's assets in proportion with his/her stake.

The functional rules are defined during the foundation. The statute defines beside the name and circle of operation, other rules also, like the members' rights and obligations, the amount of original capital, the amount of stake, the distribution of profits and the inside organisation of the cooperative.

Member of the cooperative may be an individual or a legal entity that pays in the stake. Every cooperative must keep book on its members, which is available to all the members and authorised third parties.

One of the law's main functions is to define the way of managing. The right to manage belongs to every member, having one vote each. The exceptions are those members, who have bigger role in the operation, having 3 votes maximum.

Organs of cooperatives: general assembly, management board, manager and board of supervision. They make decisions with the majority of participant if law of the status do not dispose differently.

Assets of cooperatives are the all the founders' stakes and cash, securities and means of production obtained during their operation. The cooperation is responsible with its entire assets and operates in its own name on behalf of its own account or the members' accounts.

Profit is divided according to the general assembly's decision after annual settlement is accepted. Firstly the losses of previous years must be covered from the profit, and then follows the necessary reserves, and only the remainder is divided as net profit among members according to their stakes' share.

Books are kept and financial statements are prepared according to the relating laws and the internal regulations of cooperatives.

The operation of cooperatives is supervised by cooperative auditing service. It can be a cooperative or company that has got the permission of the authorised ministry. Audition is obligatory for every cooperative, and it can be regular or exceptional. If a cooperative misses audition, its liquidation will be initiated. After auditing the auditor prepares a report with his opinion and sends it to the ministry and the given cooperative.

Strategy for developing clusters

In Serbia, similarly to many other countries, it has been realised that for developing the economy it is not enough to use former economic planning practice, but following the practice of developed countries, new methods, development and economic development practices should be utilised, which require similar, or often even less resources, resulting in considerable improvement and enabling faster structural change.

Clusters are based on connections between firms. The connections can be common or complementary products, same technology, need for similar natural resources, need for certain professions and/or sale channels. The system of connections between companies is the first requirement for establishing a cluster. The second requirement is large concentration of firms from the same industry within a certain territory. The third precondition of founding a cluster is to have working relations with scientific research institutions for providing new ideas and innovations.

Unfortunately, we do not have such an example, which applies the characteristics of every region, but there is a so called general model, which serves the foundation of clusters

and involves important development factors and phases and reckons with the scarcity of resources and the special needs.

Successful operation of a cluster does not only depend from the success of certain companies, but also from their cooperation within a unified organisation. Thus it must be highlighted, that though a company's continuous development is necessary, but not enough precondition for the cluster's success, which requires integrated management, organisation, planning and development.

Integrations in the form of clusters have three main parts:

- Defining the strategic plan and outlining the vision – establishment and development plan, preparing adequate atmosphere, which directs changes towards integration.
- Integration and development of basic economic processes – realisation of the cluster's and the companies' core functions.
- Development of a modern information system – the core supporter of the integration process.

Certain clusters can resolve their financing over membership fees, but it is usually characteristic to clusters that they search for financial sources to maintain their operation. Regional support can be a long-term solution – through providing financing for several years.

If we formulate the question – after everything said – why there are no clusters in undeveloped regions, which could increase competence of the region, the answer may be the high complexity of clusters' organisation and development.

3. Detailed presentation of strategy elements

- Production of traditional products founded on the region, their delivery to local and external markets. Establishment of local processing plants and chains of stores, their development and making the system of labelling regional products.

It is necessary to take into consideration local endowments, traditions; reveal local values and competence; prepare food cadastre and value inventory; map local potentials; make a list of local food-industry actors and determine drawing branches of agriculture. For developing local products, it is essential to help organisation by value chains, which beside sales and promotion involve processing, storing and transport activities as well – vertical approach. Developing suppliers' and buyers' networks is key element of this process. Here

belong local market development, local marketing activities and the establishment of local food brands as well.

- Adequate utilisation of local natural endowments, employing local people for achieving adequate employment rate.

Without the enthusiasm, conscious behaviour and active participation of local actors, local agribusiness cannot be intensified, strengthened, improved in a sustainable way. So those activities are especially emphatic that are aimed at developing consumers' awareness, the habit of conscious consumption. This can create local market and collaboration between local enterprises. It is indispensable to strengthen local identity (especially among the young) and the preference of local resources, products, services, knowledge, as a general rule. Local economic actors, involving municipalities, should prefer local products, services and should employ local people. Another element of forming the approach is the entrepreneurial spirit, improving willingness to doing business, since – even if it was forced – self-employment can be answer to continuous decline and huge unemployment.

This segment of the strategy aims at human resource development of local producers and food-industry companies over flexible trainings. The goal is teaching such skills that improve the professional quality of the farm, enterprise. This involves beside general entrepreneurial, economic and financial knowledge, the current topics and forecasts of the given profession, as well as contents from local history. Professional training should, if possible, adjust to the needs of local economy teaching those professions, which are important in the given region.

- Cooperation between producers and their organisations in production and marketing, exploiting trade opportunities in the border region.

Community development is of core importance, though it is a time-consuming process, but results in strong community feelings, willingness to collaborate and ability to manage conflicts. Common planning also contributes to team spirit, strengthening of self-control, solidarity and tolerance. For farmers and manufacturers from the two countries, relationships should be established first, and later based on these relations, production and economic aspects of cooperation can also be exploited, realised both in horizontal and vertical integration, and forecast even cross-border trade after the administrative barriers are demolished.

- Making sale chains the shortest possible in order to preserve most of the income for enterprises in the region

There are different forms of territorial economic cooperation: production and sales cooperatives, clusters, suppliers' networks, as well as thematic routes and conscious connection of certain sectors, and organisation by chains of interests. Local thematic routes based on local agribusiness and gastronomy also belongs here. If these systems are successfully developed and managed by farmers directly, then most of the profit will appear in local producers' incomes.

- Revealing such market niches where products with high added value can be sold successfully, motivating procurement of input materials in the regional market near the border.

Development of such local food products together with their marketing that are intended exclusively for the international market. These are special local products with high added value, excellent quality and uniqueness. There is chance for purchasing input material in gross at preferential prices in case of both these and other products. It can be a good example of cross-border trade, from which producers of both countries may gain, only the administrative obstacles must be eliminated first.

- Developing common advisory network and informational monitoring system.

The general objective of advisory networks is to inform and teach agricultural producers in order to increase their income and improve their business management skills. Special goal is to help them solve their production problems and organisational, economy questions of farm development, as well as to contribute to rural development in their environment, preserving the environment and resources. Development steps should be based on the Hungarian advisory and monitoring network, since the Serbian system is much less developed. The Hungarian system takes into account the values of the European Union, has a wide-spreading background and is better embedded, while in Serbia the system was initiated from above.

- Insisting on collaboration between local decision-makers and producers for achieving commonly set goals.

Here are those programmes that are managed and implemented by municipalities being the investors. Basic community supply systems should function in common property and management, since it would have economy development effects locally. These are opportunities for implementing renewable energy and investment stimulating programmes. Local agriculture may be developed and alternative incomes may be realised with complex energy programmes. Giving impulse to municipality-owned enterprises is beneficial for the community.

- Ensuring food safety, introducing own regional standards for premium category products above EU and national regulations.

Beside the introduction of the EU and national food safety regulations, regional food quality standards should be developed. As we said above, it is necessary to develop traditional products and product groups, characteristic to the region. For a farmer who wants to enter this circle not only prescriptions of exterior characteristics, but interior and quality prescriptions are also obligatory. These rules should be developed with the collaboration of local farmers and manufacturers and the improving profession.

- Developing common agricultural marketing system based on local labelling system of products.

Local product development activities should be handled in close connection. This programme involves image development of local products, setting the specialised shop of local products (locally, in towns nearby or in the Internet) or placing shelves of local products in stores nearby. Here is the wide range of marketing tools as well: food promotion on village feasts, festivals, in towns and establishment of model farms that can be visited. There is the opportunity of participating on markets in neighbouring towns. With the help of market research, some international channels can be determined for marketing local products regionally or internationally.

- Founding two model farms on both sides of the border.

In order to simulate putting into practice of the planned activities, two model farms should be established on both sides of the border. These can be already existing business units where production system and infrastructure should be transformed according to adequate rules and principles. Both farms operate in their own environments. Based on received

feedback, experience and results, the system can later be implemented more widely in both countries.

4. Necessity and development of common statistical and monitoring system

Agriculture and relating food industry are determining the economy in both regions. Agribusiness is an endowment, potential and comparative advantage in both regions. In case of certain social-economic problems of the two regions, only the development of agribusiness can be effective.

The EU integration process has started in Serbia, within which beside legal harmonisation, reform of administration, harmonisation of economic and financial policy and implementation of EU standards, there will be serious changes in the field of development policy as well. It is also necessary to harmonise agricultural statistics and to prepare for implementing food monitoring system in Serbia.

Territorial and economic compatibility should be ensured in the Hungarian-Serbian border region, since this is a professional, political and business interest in both regions.

The target areas of special programmes within the Danube Strategy are irrespective of state borders, providing direct and indirect results in community, regional and economic development. Furthermore, other countries of the Danube Region outside the EU may also participate in programming and the implementation. A developed agribusiness statistical and monitoring system in both regions could be basis for implementing trans-national programmes of common development in the fields of agriculture, food industry and trade. A database with dynamic data series and cadastres of business subjects could provide necessary raw information for further planning, realisation of new programmes and projects.

It can safely be stated that in the process of rebuilding the economy after the crisis, clusters will be the drivers of the economy. Predicted tendencies of the next decade: connection and collaboration of industrial and knowledge clusters, process of crossing regional and national borders, establishment of so called World Class Clusters – these super clusters will probably outgrow statistical/planning regions.

Regionalism is being intensified. Because of hectic global agribusiness and food trade, and in order to decrease food dependency and enable traceability, development of regional markets has priority to forming international marketing channels or filling market niches.

Necessary tasks

The survey and documentation of agribusiness actors is not a one-time activity. Regional colleagues should update data constantly, and register potential changes at farmers and enterprises. Data entry of new participants of the system is also necessary.

The questionnaire and data sheet as well as the instructions should be revised every year. Processing feedbacks, comments received from data gathering and the operation of the electronic sale system, and possible corrections based on them are indispensable for continuous operation.

Tasks of the system

Continuous update of the database, processing and evaluation of data. The same questionnaire and data processing method should be used in both regions for providing compatibility. There is a complete agricultural survey in Hungary every ten years, done by the Central Statistical Office. Since there is no such system in Serbia, therefore the monitoring system should adopt to the established survey system in Hungary.

The survey documents should take into consideration methods applied in Hungary. If the system of complete agricultural survey will be introduced in Serbia as well, then the survey documents of this programme should be based on common denominator of the two systems. It is practical to present the results and experience of the programme to the Serbian ministries of agriculture and industry in order to influence the development of sectoral policies for agro-statistical compatibility of the two countries.

The database should fulfil the following requirements:

- filters for presenting active economic subjects
- dynamic database, constantly updated, actualised
- modular system, capable of integrating newer statistical data groups
- bilingual
- automatic procession of data, execution of queries, graphical presentation of the results
- the graphic interface must be accessible online to anybody
- RSS compatible
- RSS connection to local and regional databases

- four separate interfaces: one public, accessible to anybody; one for uploading information with registration system; one interface for regional managers accessible with their own entry codes; administrative interface
- divide agribusiness into supply, demand and trade spheres
- divide actors on those who perform agricultural basic activities and on those who produce added value
- typology of basic agricultural producers, analysis of production sphere
- processing data on agricultural networks, integrations, cooperatives by business companies
- mapping agricultural service providers
- registration of demand-side food industry actors, retail and wholesale capacities, marketplaces, business units consuming huge amounts of food (e.g. restaurants, kitchens, schools etc.)
- all the parameters should be recorded at every sector and actor, and the database should present the relationships, the sales channels of every certain participant

Continuous tracing of duty, veterinary and plant hygiene regulations. For the case of Serbia's EU accession we must be prepared for modifications in the quality control mechanisms, the introduction of product traceability and monitoring system. Tariffs and hygiene regulations in domestic and international trade are constantly changing in case of some products, depending on market movements and the international trade.

Informative portal on common state and regional subsidies. Subsidy systems are also dynamic categories, being revised by the authorities at least once a year. Additionally, changes in financial-supporting funds and the macroeconomic situation also influence the system of subsidies.

Development of a common interregional food trade monitoring system.

Organisational structure

The backbone of the organisation is the central office and the regional offices, interpreted as network centres. The central office determines the tasks; performs their execution, control and monitoring. It manages the networks, performs professional-diplomacy tasks and leads the network's further development. Colleagues of regional offices are selected on

professional basis, being graduates who know the given local environment and are highly competent.

The monitoring system should have a network of external partners as well. It involves connections with authorities, professional organisations, other agricultural cooperatives, state organs. Gathering secondary data is also important, since monitoring must be based on primary data and external, secondary data at the same time.

5. Mapping trans-regional or cross-border cooperation potentials within related business sectors

Cross-border cooperation may by no means be based on mass production, mainly referring to the production of cereals and other grain crops of fodder. There are no adequate regulations for that, and the size of holdings is also below the profitable level. Furthermore, since these are strategic crops, it is not reasonable to increase the quality and quantity of production over cross-border co-operations.

We have to enter such market niches where knowledge, skills and technical conditions of local small producers enable them to achieve increased revenues over added value.

In our opinion, there are several such branches, which could reach additional production volume growth over cross-border joining of the Southern Great Plain Region and Vojvodina. Moreover, there are some development projects, with the implementation of which we can exploit great potentials over the synergy of complementary advantages.

1. Complex overview of the region's agriculture, its horizontal territorial and vertical branch system, mapping its potentials, establishment of the current strategic agricultural and rural development programme.

The agricultural character is a traditional characteristic of the region that determines organic identity of the area and its inhabitants.

This survey is necessary as an answer to economic and social effects of globalisation; saturation, disproportions and anomalies of EU's agricultural and food industry markets; qualitative and quantitative consequences of food safety problems; the effects of extreme weather conditions and the dramatic, hectic changes in food supply in the world. The background data is available from the research summary of the Agricultural Economics Research Institute from 2008, as well as from detailed

data of the Hungarian Central Statistical Office. Furthermore, this survey can be based on the research databases of agricultural, biology, biotechnology and agribusiness research and development institutions from the region. Similar surveys of the agricultural complex are initiated by agricultural chambers as well as the cross-border partnership programs between Hungary, Romania and Serbia.

2. For producers there are great potentials both in the fields of organic farming and forcing vegetable production. The intellectual centre of Serbian organic farming is in Subotica, where the concentration of such farms is expressed, while in Hungary the sandland is one of the main forcing vegetable production territories. Everything is given to exploit experience and relationships of the past fifteen years. There are adequate, controlled lands and production conditions. In case of organic farming there should be separate organisational units and all necessary theoretical and material support should be provided to farmers. By current size of holdings only labour intensive branches can help this region. Forcing vegetable production in foil and glasshouses is such branch, though this can involve even flower growing. Utilising given natural conditions and the experience of production and marketing in neighbouring Hungary, numerous opportunities will emerge in this branch. There are many small farms, which could rapidly begin production of organic food after adequate training and capital injection, this way providing income for the whole family.
3. Both in Hungary and the European Union bio-energy production has become popular due to EU regulation that requires development of alternative energy resources and mixing bio-fuel derivatives with mineral fuels. Hungary is far in front of Vojvodina in this respect, in tune with the EU undertakings. Though environmental conditions in Serbia do not differ from Hungary, so the production of alternative energy sources is possible there as well. Of course, for exploiting such potentials, state support must be provided in the form of guaranteed price and terms of buying up.
4. Production of energy crops, utilisation of agricultural wastage, production and use of biogas present significant potentials for heat and electricity production both at regional and country level. There were advanced researches in this subject in

Subotica already at the beginning of the 1980s. Similar researches are done even nowadays, but the realisation is limited only to heating family house using soybean and corn-stalk and straw.

5. There is a wide scope of action in the field of improving manufacturing and marketing of products. Currently the difference between producers' and consumers' prices comes down outside agriculture. In order to prevent this, farmers should create the entire product path, from the buyer and manufacturer to the marketer. It is obvious that this is not feasible on all product paths, since in case of strategic crops like cereals and oil crops these paths have already been established, but in case of new, high-quality and special organic products, this potential must not be missed.
6. Developing the system of test plants for cross-border production integration. It is inevitable for planning, realisation and supervising agricultural policy measures, to possess current and reliable information of agriculture as a whole, and of every important group of production plants. There is no centralised information system of test plants in Serbia now, which could provide practical, exact information for the above mentioned activities. In order to provide information necessary for developing the Common Agricultural Policy of the European Union, every Member Countries operate a farm information system based on collecting representative data. Member Countries are obliged to supply this information to the European Commission. In the region, there is the possibility of developing a pilot system of test pants that will reflect and gather the features of the two countries and the European Union. During the development of data system of this test plant network, data should be considered both the European Commission's definition of tasks to the FADN, and the Serbian agricultural policy objectives. After a trial period of operation, project results can be extended both to other regions in Serbia and to other border regions in the EU or to support cooperation with third countries.
7. Preparing and coordination of professional development of the complex drainage and flood control and environmental partnership programme in the Sandland, divided by the Serbian–Hungarian border. The Southern Tisa Valley Identity Region divided by the Serbian–Hungarian state border is considered globally for a region rich in water (since two rivers with high water output supply it with water, the

Danube and the Tisa River, and it has significant underground water reserves as well), but seasonally and locally it is often water-poor and even (the two major rivers Sand Ridge) it is highly exposed to the risk of desertification (on the Sandland running through the hilly ridge between the rivers).

For handling the severe water supply situation in the region, it is necessary to develop and urgently implement a water management conception, which is large-scale, precise and definite and of wider regional character and scale, in harmony with the priorities of the Danube Strategy.

The basic presupposition of this programme concept is sustainability and retaining water in the long-run – by optimal handling of numerous regional/local water management interests that are often opposing each other.

Fundamental questions of developing a conception that covers and treats uniformly the whole wider region are the following:

- Water management, drainage and flood control:

Water withholding treatment of water output of the rivers between ever higher dikes. Development and operation of small and large integrated regional water management systems. (The Danube-Tisa-Danube DTD channel system for water management, navigation and watering, with 130 transfer and/or reversible pumping stations could be an example to Hungary even in its current poor technical condition.)

- Drinking-water bases, wastewater treatment, environmental protection:

The question of drinking-water supply in the region must be revised, since in many cases – especially in Northern Vojvodina – water supply is based on extensive and wasteful exploitation of underground water bases (which is disposable only in limited amount and it is renewed very slowly). At the same time, wastewater treatment in smaller settlements must also be resolved, since (beside treatment of solid waste) this is the question of the hour for preserving natural and man-made environment and of receptive living waters.

- Building water-management infrastructure:

The potentials of infrastructural development in river control for drainage and flood control purposes, the question of channels and collecting water reservoirs, resolving irrigation at industrial and SME level, all should be revised. Channels should be widened for navigation purposes and to utilise energy potentials of the two big rivers

and the channel system between them. The conflicts between national economy, natural preservation and environmental protection aspects of these enlargements must be handled with compromise the way that the region's economic resources should not be overtaxed.

- Resources of thermal and medicinal water:

The technology, economics, marketability and environmental potentials and constraints of actually exploitable and available underground depth water resources must be revised, for their environment-friendly agricultural, medical, energy and tourism exploitation. A realistic long-term utilisation strategy concept should be formulated and developed with regional approach.

There have been several substantial initiatives recently for synchronised resolution of water management problems at wider regional level.

- For developing this program, it is inevitable to reveal ownership, authority and functional structure of the Sandland, determine social, economy and professional water management factors, ensure transparency of their complexity and establish a partnership network.
- Another essential pile of the program is the professional preparedness, functionality of the relevant institutions in water management.
- For developing the professional concept of the program, it is necessary to confront, harmonise, integrate and mix all the former surveys, analyses and proposals concerning water management on the Sandland.
- It is also indispensable to socialise, popularise and discuss the planned concept with the members of Sandland Partnership Network, in order to offer connection opportunities to municipalities, micro regional organisations, community and economic actors.
- This complex program could be an especially important revitalising factor of the Sandland's agriculture, population, communities and SMEs, all of which are facing serious problems.

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Long abstract

The SPF Network project supported by EU's IPA program want to point out that Vojvodina and the Southern Great Plain are territories strongly depending on agriculture and food industry, the rise of which regions could be based only on cooperation between the two countries, primarily in the fields of agriculture and food industry.

The Project shows that relations between the two countries, the two observed regions are still very limited in this sector of the economy, while there are so much the potentials still not capitalised.

The aim of this Project is to present sectoral characteristics of the two regions and the conditions by which cooperation could be established between them.

The project recognize development projects, with the implementation of which we can exploit great potentials over the synergy of complementary advantages:

1. Complex overview of the region's agriculture, its horizontal territorial and vertical branch system, mapping its potentials, establishment of the current strategic agricultural and rural development programme.
2. For producers there are great potentials both in the fields of organic farming and forcing vegetable production. The intellectual centre of Serbian organic farming is in Subotica,

where the concentration of such farms is expressed, while in Hungary the sandland is one of the main forcing vegetable production territories.

3. Both in Hungary and the European Union bio-energy production has become popular due to EU regulation that requires development of alternative energy resources and mixing bio-fuel derivatives with mineral fuels.
4. Production of energy crops, utilisation of agricultural wastage, production and use of biogas present significant potentials for heat and electricity production both at regional and country level.
5. There is a wide scope of action in the field of improving manufacturing and marketing of products. It is obvious that this is not feasible on all product paths, since in case of strategic crops like cereals and oil crops these paths have already been established, but in case of new, high-quality and special organic products, this potential must not be missed.
6. Developing the system of test plants for cross-border production integration. There is no centralised information system of test plants in Serbia now, which could provide practical, exact information for the above mentioned activities.
7. Preparing and coordination of professional development of the complex drainage and flood control and environmental partnership programme in the Sandland, divided by the Serbian–Hungarian border (Water management, drainage and flood control; drinking-water bases, wastewater treatment, environmental protection; building water-management infrastructure; resources of thermal and medicinal water.