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# ROLE OF AGRICULTURE AND MULTIFUNCTIONAL RURAL DEVELOPMENT IN SERBIA

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**Abstract:** Serbia is mostly rural country, as three fourth of its territory make rural areas, while almost half population is living in rural areas. Serbian agriculture is the sector which is very important for the total economy of the country in respect of resources, participation in GDP, employment as well as importance for rural areas and population. This is the only sector in Serbian economy that shows positive foreign trade balance in the recent several years. There are potentials for development of agrarian entrepreneurship on one hand, but on the other, there are constraints in existence of great number of small family farms whereas the huge share could not have commercial profile and could not live only from agricultural activities. The concept of multifunctional development of agriculture and rural areas is still present mostly in scientific and political sphere without clear explanation or interpretation as well as mechanisms of implementation. Serbia's rural space is heterogenic and devastated in different extent, and therefore extremely complicated for planning of multifunctional development.

**Key words:** agriculture, rural areas, multifunctional development, Serbia

## 1. Introduction – Economic Trends and Importance of Agriculture in the Economy

Serbia is located in the Balkan Peninsula, at southeastern Europe and in the Pannonian Plain (a region of central Europe). It is landlocked, although access to the Adriatic is available through Montenegro, and the Danube River provides shipping access to inland Europe and the Black Sea. Serbia covers a total of 77,474 km<sup>2</sup>; it has 4,720 settlements of which 187 are urban<sup>1</sup>.

According to the data of the last Census (2002) there are 7,498 million inhabitants in Serbia. In the 1991–2002 period the population number dropped by 1% (by 3.65% in rural areas). An average population density is 97 inhabitants per km<sup>2</sup> (289 inhabitants/km<sup>2</sup> in urban areas and 63 inhabitants/km<sup>2</sup> in rural ones). Areas in eastern part of the country, particularly in the southeastern part near the borders with Bulgaria and FYR Macedonia, are low populated areas with significant negative demographic balances. Serbia has for some time been part of the trend of permanent aging of the population<sup>2</sup>.

Since 2000 Serbia's economy has been going through recovery from conflict and isolation in the 1990s. In the first eight years of transition, from 2001 to 2008, Serbia has implemented economic reforms that have resulted in the increase of gross domestic product,

gradual reduction of high inflation rate, employment growth and in increase of foreign direct investments. In this period, the average annual growth of gross domestic product reached 5.4%, and GDP per capita was increased from EUR 1.709 in 2001 to EUR 4.661 in 2008. In 2007 and 2008, for the first time in decades, there were positive signals in the labor market. The unemployment rate of around 21% was reduced to 18.1% in 2007 and to 14.0% in 2008. Unemployment in Serbia is extremely high and a major problem in economic and social sense. This has largely been the result of privatization and the necessary restructuring of the old overcrowded and inefficient large state-owned companies. This situation is exacerbated by the inherent inflexibility of the Serbian labor market: part-time jobs account for only 7% of the total and temporary work only 13%. The high unemployment rate in the economy can also be attributed to the large size of the informal economy in Serbia. Inflation rate in the entire period was within the targeted inflation limits, and in 2007 it was 6.8%, which is a significant progress relative to the beginning of decade (Bogdanov, N. 2008).

Table 1. Selected macroeconomic indicators; 2000–2008; Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP –% <sup>1</sup>	4.5	5.4	3.6	2.8	8.2	6.0	5.6	7.1	5.5
Inflation rate (annual average) –% <sup>2</sup>	70.0	91.8	19.5	11.7	10.1	16.5	12.7	6.8	10.9
Unemployment rate –% <sup>3</sup>	12.1	12.2	13.3	14.6	18.5	20.8	20.9	18.1	14.0

<sup>1</sup> Calculated from data on GDP at 2002 constant prices

<sup>2</sup> Retail prices

<sup>1</sup> Data for territory of the Republic of Serbia excluding Kosovo (EULEX).

<sup>2</sup> Statistical data show that the average citizen of Serbia is 42 years old, and fertility i.e. the number of children born to a woman is among the lowest in Europe.

Table 2. Share of agriculture in the economy; 2000–2008; Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture in GDP (current prices) –%	19.0	19.3	14.4	12.7	13.2	11.5	10.6	8.7	:
Share of agriculture in total employment –%	:	:	:	:	23.9	23.2	20.5	20.8	21.4
Share of agri-food exports in total goods' exports-%*	19.0	18.3	25.3	20.9	22.2	20.3	19.4	18.9	31.3
Share of agri-food imports in total goods' imports –%	8.6	10.7	9.8	8.8	8.0	7.4	6.9	6.1	6.4

\*Agro-food trade according to Combine Nomenclature of Custom Tariffs (CNCT)

Source: Statistical Office of the Republic of Serbia

Agriculture's contribution to the Serbian economy is as broad as it is deep. During the transition period the share of primary agricultural production in the realized GDP was reduced in comparison with the 1990's, so that in 2007 it accounted for 8.7% (Table 2). The share of the food industry, beverages and tobacco in the realized GDP in this period accounted for 5.5% on the average and also has a trend of permanent decrease. But despite this downswing the share of primary production in agriculture is compared to the EU and to neighboring Western Balkans countries still very high.

The agriculture employs a big portion of the total labor force in Serbia. The main reason for the high reliance on agriculture is certainly reduced employment opportunities, fact that agriculture absorbed labor surplus from other sectors of economy which have already completed reforms and low investment activity in country, also. Compared to other sectors of Serbian economy, the agro-food sector plays a very prominent role in overall trade. The agro-food trade balance was mostly negative during the mid 1990s' and since 2000 it became positive for the first time in 2005. The agro-food sector accounted for some 20% of total Serbian exports. Serbia's main export commodities are cereals (maize, wheat), raw and processed fruit (frozen raspberries, prunes), refined sugar and some livestock and meat products. The share of the agro-food sector in total Serbian imports is about 7%. With regards to agricultural imports a wide range of food and agricultural products is imported, with the EU as the largest origin of imports (Bogdanov, N., 2010).

## 2. Natural resources

Serbia's terrain ranges from rich, fertile plains of the northern Vojvodina region, limestone ranges and basins in

the east, and in the southeast ancient mountains and hills. In Central Serbia, the terrain consists chiefly of hills, low and medium-high mountains, interspersed with numerous rivers and creeks. Four mountain systems meet in Serbia: Dinaric Alps in the west cover the greatest territory, and stretch from northwest to southeast. Apart from the Danube, the chief rivers are its tributaries Sava, Tisa, Drina and Morava. Climate of Serbia is moderate continental with diversity on local level, caused by geographic location, relief, terrain exposition, presence of river and lake systems, vegetation, urbanization etc.

Thanks to the relief and climate conditions in the territory it covers, Serbia has favorable natural conditions for diversified agricultural production. Forest to agricultural land ratio (39:61%) is also more favorable compared to many European countries. Serbia disposes of 5.1 million hectares of agricultural lands (0.60 ha per capita), out of which 3.3 million hectares (65%) fall to arable lands (0.45 ha per capita).

Depending on the quality of soil and above sea level, the agriculture of Serbia covers all the forms of intensive, semi-intensive and extensive farming. Regarding its suitability for agricultural production (soil fertility), the soil potential of Serbia is divided into eight fertility classes, where the first four classes represent better soils, and classes 5-8 include the areas mainly unsuitable for tillage. As for the whole of Serbia, distribution of arable and non-arable land is almost identical. Intensive agricultural production is least restricted in Vojvodina and most restricted in Kosovo and Metohia. The latter territory, similar to that of Central Serbia, has a wide range of natural fertility in narrow geomorphologic units. According to the above sea level, the plain terrains (up to 200 m) cover about 37% of the territory of Serbia. Hills (200–500 m) and low

Table 3. Surface area and land cover (000 ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total area*	7747	7747	7747	7747	7747	7747	7747	7747	7747
Forest area	1950	1950	1950	1950	1950	1985	1985	1985	1985
Agricultural land	5106	5108	5106	5112	5113	5110	5104	5090	5096
– Arable land	3353	3351	3346	3340	3342	3326	3315	3295	3302
<i>of which fallow and uncultivated land</i>	175	143	156	169	176	194	248	200	200
– Permanent crops	316	313	317	316	312	305	302	301	303
– Grassland	1402	1409	1407	1420	1421	1441	1448	1455	1453
– Other agricultural area	35	35	36	36	38	38	39	39	38

\*Excluding Kosovo (EULEX)

Source: Statistical Office of the Republic of Serbia

mountains (500–1000 m) account for nearly the same percentage, of about 26%, and mountains (above 1000 m) approximately 11%. As regards the slope of the terrain, it is characteristic relatively high percentage (42.6%) of steep and very steep areas (slope over 30%) with shallow lands prone to erosion and inadequate for tillage. Nearly level terrains (slope below 5%) to slightly sloped terrains (5–10%) account for about one third of the land area, and the remaining 24% falls to slopes of 10–30%, whose exploitation for agricultural purposes is conditioned by undertaking appropriate protection measures.

However, a great part of the arable lands is acidulated, as a result of uncontrolled use of chemical agents, and in Vojvodina (the most developed part of the country in terms of agriculture) and salinated, what reduces the yield and raises the production costs. According to the assessments, it is necessary to take measures for amelioration of physico-chemical characteristics of the soil on approximately 1/3 of arable lands. The share of irrigated arable lands in total arable lands is among the lowest in Europe (approx. 1.5%), whereas about 85% agricultural land is endangered by wind and water erosion. At the level of Serbia, the calculation of total nutrient balance is not carried out. For the needs of Serbia Danube River Enterprise Pollution Reduction Project (DREPR), the assessments were made on the nutrient load from agricultural sources (manure and chemical fertilizers) and its consumption – quantities necessary for crops. Comparison of the amounts of nitrogen and phosphorus in manure and chemical fertilizers with the crop requirements showed that the cumulated supply was far from reaching the crop requirements. It indicates that there is a great potential for using manure on crops.

In general, the structure of agricultural land exploitation in Serbia is stable, and there were no significant changes in the past ten years. The only one significant change was in the vineyards' area decrease by cca 5%. Areas under vineyards are getting reduced first of all because of the unfavorable economic position of the grape production, low competitiveness and lack of labor.

Serbia has no accurate records on agricultural land surfaces and there are large discrepancies between statistical data and cadastral records. Official statistics registers about 4% uncultivated surfaces annually, but it is estimated that data much higher. There is uncultivated land particularly in the hilly-mountain regions with emphasized depopulation, as well as in those territorial parts affected by erosion and subject to flooding.

### 3. Farm structure

Agrarian structure in Serbia is very complex. It consists of micro farms owned by poor farmers or successors of reprivatized land, small semi subsistence farms, large family farms in the northern part of the country, as well as the privatized big properties with mixed ownership structure.

According to the statistics, private farmers own approximately 80% of the 5.1 million hectares of agricultural land. The rest of 20% of farmland is utilized by many entities, varying with regard to ownership and farm size. In Vojvodina, there is a higher concentration of larger farms. Ownership rights are poorly defined and recorded in Serbia. This lack of clear ownership rights for a significant proportion of the land is a hindrance to the proper operation of the land market, although land tenure in Serbia is overwhelmingly private. However, today the majority of public property, which originates from confiscated lands it from former proprietors, fiscal and legal entities, remains in state ownership. In 2005, Ministry of Agriculture, Forestry and Water Management (MAFWM) adopted a regulation according to which all state-owned land should be tendered for rent<sup>3</sup>.

Serbia has on average a much smaller private farm size than many other European countries. According to the 2002 Census (Table 4) there are about 778,900 private farms in Serbia with an average size of 3.6 ha, fragmented in an average of 4 plots per farm, which puts Serbia at Europe's bottom in terms of farm size and fragmentation (Subić, J., Vasiljević, Z., Cvijanović, D., 2009). According to the 2002 Census over 75% of private farms have less than five hectares and fewer than 5% have more than 10 hectares.

Table 4. Family farms number and area farmed\*; 1991 and 2002; Serbia

	1991	2002	Change (%)
Number of farms – 000	997	779	78.11
Area farmed – 000 ha	3460	2869	82.92
Average size of farms – ha	3.5	3.7	106.17

\* Data refers to private family farms only (without agricultural enterprises and cooperatives)

Source: Statistical Office of the Republic of Serbia – The Census of the population, households and dwellings 1991 and 2002

The tendency of turning the family farms into big, commercial farms as well as strengthening of dual agrarian structure has been shown in the case of farms of Vojvodina region, particularly in the areas with marked tendency of population aging. The land market is active in this part of the country, but it prevails renting in relation to the land buying and selling. In the central part of the country, around big cities where there is a higher agrarian population degree as well as participation of the mixed farm holdings, the small properties are dominant ones (Bogdanov, N. 2009).

Analysis of the property structure change and of the land market is impeded because of lack of reliable data. Namely, the Census of agriculture has included only private family farms, but not agricultural enterprises, whose ownership and holding structure have no record. In addition, in the period between the two censuses there have not been conducted other researches by Statistical Office where the data on land would be innovated. The other researches conducted on a national representative sample (LSMS, 2002 and 2007),

<sup>3</sup> According to estimates 350,000 to 380,000 ha of agricultural land are state owned.

show that there is an increase both in number of farms that rent the land and in size of rented surfaces.

#### 4. Agricultural production and output

Until the beginning of the 1980s Serbia had an impressive agricultural production growth rate (3.5–4%), which stagnated during the 1980s, and in 1990s it declined sharply. Extremely unfavorable production and economic indicators of Serbian agriculture in that period are reflected in the following: production of almost all agricultural products characterized by marked fluctuation and negative trend; the use of agro-technical inputs has been reduced; low labor productivity; low level of market production; production structure acquired the characteristics of extensive production (Bogdanov N., 2009).

Period from 2000 to 2008 was characterized by substantial annual fluctuations of agricultural production, but generally it is still lower than in pre-transition period. Relatively extensive production method caused fall in the physical scale of production, especially in the years of unfavorable climatic conditions (particularly in 2000, 2002, 2003 and 2005, 2007). Agricultural production in Serbia is strongly influenced by the weather conditions – particularly the droughts and uncontrolled activity of waters. The economic transformation process affected the livestock sector more than the crops' sector. In the structure of the realized value of agricultural production, about 67% comes from the plant production, and 33% from animal production, without a pronounced change tendency during the observed period.

Table 5. Agricultural production volume indices\*; 2000–2008 (2005=100); Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	-13.0	19.0	-3.0	-7.2	19.8	-5.3	0.0	-8.0	8.0
– Crops	-27.0	50.0	-4.0	-16.8	44.3	-5.7	-3.0	-18.0	23.0
– Livestock	-5.0	-1.0	2.0	-1.9	-0.2	1.1	-3.0	0.0	-3.0

\* Final (net) production only

Source: Statistical Office of the Republic of Serbia

Dominant position in the production structure of agriculture belongs to cereals (maize and wheat). Areas under cereals account for about 60% of arable lands, with pronounced decreasing trend over the past years. Reduction of the areas under cereals is a result of lowered interest of farmers in the production of wheat which was extremely uncompetitive compared to other crops. Value of cereals production is still extremely high and accounts for about 30% of total agricultural production value in Serbia.

Areas sown by industrial plants have recorded permanent growth since 2000. Their share in the arable lands increased in the period 2000–2008 for about 16%. The industrial crops accounts for 7% of total agricultural production value of Serbia. Opening of the foreign market, budgetary support, export subsidies and privatization of the processing capacities, contributed to fast revitalization of the industrial plant production after the crisis in 1990's. More than in other

segments of the food chain in Serbia, this sector has set up the trade chain that has also reflected positively on the growth of the lands and production.

Fruit and vegetable production recorded positive trends in the past years and it makes about 11% of the agricultural production value. Fruit and vegetables occupy about 12% of arable land and they are predominantly grown on private holdings in Central Serbia (about 99%). In this sector significant progress has been made in the improvement of standards in the production and processing, as well as in the strengthening of the production linkages. Serbia has ideal climatic conditions for growing many varieties of fruit. The country's territory is rich in microclimates that are perfectly suited for organic fruit production, making development of this sector extremely promising. Over the last years, thanks to favorable credit conditions for purchasing the irrigation systems and building green houses, production has been significantly intensified.

Negative trends in livestock production have been slowed down at the beginning of this decade, while since 2006 the decline has been continued. The number of farm animals in Serbia has decreased significantly since the 1990s (by more than 30%). Falling incomes together with the restricted access to foreign market severely reduced meat consumption. Production has fallen even more than livestock number, due to an additional difficulty of providing adequate feed and veterinary care. The main explanation is the decreased demand for animal products, but a shortage of animal feed and adequate veterinary services maybe also have played a role towards this decline.

Pig meat production avoided the worst depression though there has been some fluctuation (in particular due to high feed prices in some years). In recent years the milk production has been stabilized at the level of reconciliation of the domestic balance needs.

Achieved average yields in agriculture of Serbia compared to EU countries indicate to the prominent technical and technological backwardness as well as absence of technical and technological innovations in practice. The reason for this situation is in an expressed price disparity of agricultural products and basic inputs which causes reduction of the fertilizers' and chemicals' use, inadequate animal nutrition as

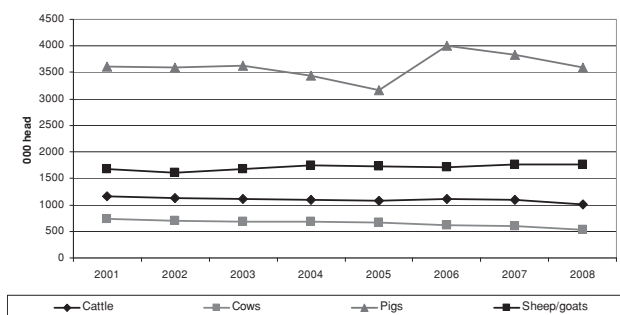


Figure 1. Number of main livestock categories (in 1000); 2000–2008; Serbia  
Source: Statistical Office of the Republic of Serbia

well as disrespect of agro-technical requirements<sup>4</sup>. High yields, at the European level, have been recorded only in production of industrial plants (first of all in the case of sunflower and soybean).

## 5. Serbian rural mosaic

Rural areas in Serbia are highly diverse in economic, social and demographic terms, due to differences in their geo-morphological characteristics, (mountainous, hilly, plain areas), population changes, economic structures, infrastructure, environmental conditions, transport accessibility, etc. In an effort to identify similarities and differences among rural areas in Serbia, as well as to identify their strengths and weaknesses, a typology of rural areas was developed through cluster analysis<sup>5</sup> in the framework of preparing the present National Rural Development Programme (Bogdanov, N., Meredith D., Efstratoglou, S. 2008).

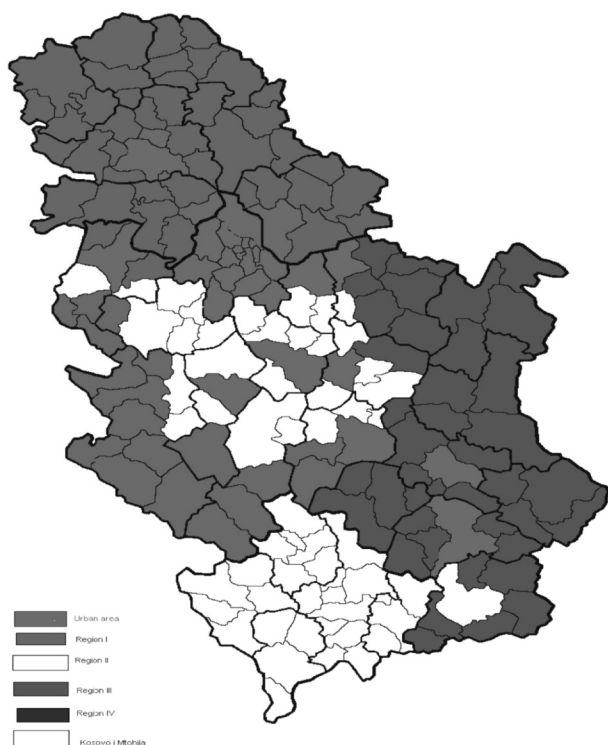


Figure 2. Typology of rural regions in Serbia

Source: "Selection of rural areas in Serbia for rural development programming purposes" by Sophia Efstratoglou, Natalija Bogdanov, David Meredith, EU Project SRDPSS Publication No 06

**Region 1 – Highly productive agriculture and integrated economy** – this region has favorable edapho-climatic conditions and rather appropriate structure of agricultural

production dominated by more capital intensive activities, as compared to other rural areas of Serbia. Moreover, this region possesses adequately developed human capital, distinctively progressive entrepreneurship, a sufficiently diversified industrial sector and a well developed physical and economic infrastructure; as a result, this region displays more favorable socio-economic indicators of overall economic development and a more integrated and advanced economy.

**Region 2 – Small urban economies with labor intensive agriculture** – this region covers the area in the perimeter of urban centers and of bigger towns and their surroundings. The general economic structure and the productivity rate of certain economic sectors are more favorable in this region, compared to other parts of Central Serbia. Taking into account the proximity of this "region" to markets with large numbers of consumers, the structure of agricultural production in this "region" is oriented towards intensive farming producing mainly fruit, vegetables, and intensive livestock products.

**Region 3 – Natural resources oriented economies, mostly mountainous** – according to its geographical characteristics, this "region" is highly heterogeneous. Its economic structure is based on the exploitation of the rich natural resources – mining and agriculture. Unfavorable demographic trends are a particular characteristic of this area. This region covers the territory of Serbia which has the highest rate of rural poverty and of total unemployment.

**Region 4 – High tourism capacities and poor agricultural structures** – This "region" represents the part of Serbia with the greatest tourism potential and the highest rate of tertiary sector contribution to its economic structure. The agricultural structure is rather undeveloped and it is based mainly on the utilization of the rather abundant natural resources of feedstuffs.

## 6. Main Characteristics of Rural Areas in Serbia

Some of the main trends and problems that rural areas in Serbia are facing with are the following:

**1. Demographic trends.** Rural areas in Serbia, till the beginning of 1990s, were characterized by a strong out-migratory trend due to the swift growth and development of the other sectors of the economy, as was the case in all European states since the 1950s, and the parallel *agrarian exodus*. During the 1990s, and because of the severe conflicts and war, population movements in rural areas were quite diverse. Rural areas continued losing population, mainly the mountainous and less fertile areas, but there was, also, an inverse movement of population into the rural areas as well, mainly by internally displaced

<sup>4</sup> For example, in the last decade the wheat yield has only three times exceeded a level of 4 t/ha. In the course of the 1980s the yield has reached even 5 t/ha what is inaccessible now. In production it is utilized uncertified seed as well, while fertilizer utilization has been reduced to one third of the optimal amount.

<sup>5</sup> "Selection of rural areas in Serbia for rural development programming purposes" by Sophia Efstratoglou, Natalija Bogdanov, David Meredith, EU Project SRDPSS Publication No 06

Table 6. The characteristics of defined rural regions in Serbia

	Total rural	Region 1	Region 2	Region 3	Region 4
<b>1. RURAL AREAS –</b>					
Population density	63.10	76.83	85.93	51.32	43.40
<b>2. POPULATION AND HUMAN DEVELOPMENT INDICATORS</b>					
% of change in population number 2002/1991	96.35	100.00	97.34	95.04	90.69
In – out migration rate	-0.14	5.81	0.43	-7.43	-5.43
% of population 15+	16.17	15.91	15.70	18.30	15.91
% of population 65+	17.49	16.29	18.33	14.28	20.33
Population aging rate	1.08	1.02	1.17	0.78	1.28
Population > 15 years					
Without primary education	28.19	24.16	28.67	27.14	34.74
Primary education	26.69	26.41	25.42	28.62	27.51
Secondary school	36.09	41.10	36.69	36.11	27.35
Faculty education	6.95	7.53	7.29	6.55	5.87
Unknown	2.07	0.80	1.94	1.59	4.53
<b>3. EMPLOYMENT</b>					
Employment structure by sectors (%)					
Primary	32.98	30.75	32.68	34.20	36.30
Secondary	30.69	31.20	30.79	31.72	29.11
Tertiary	18.60	20.28	19.41	17.80	15.35
Public	14.84	15.57	14.09	13.94	15.08
activity rate	53.61	53.14	55.43	56.35	50.78
employment rate	42.18	41.23	44.51	43.26	40.46
unemployment rate	21.32	22.40	19.69	23.22	20.33
unemployment rate – female	23.44	24.46	22.27	25.86	21.68
<b>4. GDP</b>					
GDP per capita Serbia = 100%	73.69	96.72	70.32	54.57	51.43
Structure of GDP by sectors (%)					
Primary	32.48	33.24	30.25	24.24	38.63
Secondary	41.12	42.36	39.71	43.36	38.16
Tertiary	26.06	24.14	29.67	32.08	22.64
Public	0.34	0.27	0.36	0.32	0.57
Agriculture	29.81	29.93	28.19	22.35	36.48
Primary sector productivity Serbia =100%	87.38	128.42	74.00	47.00	69.00
Secondary sector productivity Serbia =100%	74.93	102.00	65.00	57.00	53.00
Tertiary sector productivity Serbia=100%	62.48	71.00	61.00	60.00	48.00
<b>5. AGRICULTURE</b>					
% agricultural land of total area	65.30	83.29	64.34	53.95	55.03
% forestry	25.83	5.09	27.09	40.67	36.74
Structure of agricultural land					
Arable land	62.78	87.79	60.48	25.79	47.52
Orchards and vineyards	5.59	1.77	11.05	7.10	6.51
Meadows and pastures	30.88	8.64	28.34	67.11	45.93
cattle/100 ha of arable land	24.85	14.62	37.47	47.03	23.96
pigs/100 ha of sown land	91.19	80.20	131.20	96.25	84.00
sheep/100 ha of agricultural land	31.91	13.01	57.99	61.72	26.42
Average farm size	3.94	3.53	3.72	4.76	4.25
Land productivity (GDP in agriculture/ha) Serbia = 100%	88.62	111.48	110.52	48.44	61.77
<b>6. TOURISM</b>					
No of beds/1000 residents	13.71	4.29	17.31	30.53	15.18
% foreigner overnights	4.88	11.71	5.68	3.85	2.13
Overnights/no of beds	78.75	80.00	67.23	96.06	73.00
<b>7. INFRASTRUCTURE</b>					
No of telephone users/1000 residents	284	292	292	261	274
No of residents/1 doctor	512	566	457	584	470

Source: "Selection of rural areas in Serbia for rural development programming purposes" by Sophia Efstratoglou, Natalija Bogdanov, David Meredith, EU Project SRDPDS Publication No 06

persons (IDPs) and the urban unemployed. In total, during the period 1991-2002, population in rural areas of Serbia declined by 3.6% compared to an overall 1% decline in the country's total population.

2. **Employment trends in agriculture and in rural areas in general.** The employment structure and basic characteristics of labor force in rural areas of Serbia are similar to those in other transitional countries: age and education structure of rural employees are unfavorable compared to those of the Serbia's general workforce; the rate of unemployment of the active rural population is higher, employment is high in primary and low in tertiary sector.

3. **Diversification of rural economy.** The economic structure of rural areas of Serbia depends largely on the primary sector and the exploitation of natural resources. About 1/3 of the active population in rural areas is employed in agriculture. Agricultural employment shares are among the highest when compared to the EU, reflecting the continuing high importance of agriculture in the national economy and the *low diversification* of economic activities in rural areas of Serbia, resulting in the *lack of alternative employment and income opportunities*. Apart from agriculture, the rural workforce is engaged in the food processing industry, wholesale and retail trade, building construction and transport. The manufacturing sector, some other economic and the service sector are still underdeveloped in rural areas. Besides agriculture, the private sector is only recognized in the trade sector. The main limitation for the more intensive development of services and processing is obviously influenced by the non-favorable financial market.

4. **Traditional, mono-functional agriculture** is still dominant with Serbia ranking among the most agrarian states in Europe. The range and vitality of natural resources, the private ownership of land and experience in business cooperation, are some of essential preconditions for the diversification of the rural economy. These have not yet been put into good use in Serbia. The large share of GDP coming from agriculture, processing, mining and energy industries is coupled with the low share held by the tertiary sector and this is characteristic of the economic structure of rural areas in Serbia. Serbia's performance with respect to diversification is comparable to that of the surrounding countries, since it is under the influence of almost identical factors: unfavorable position of the agrarian sector and rural areas in developmental policies and set courses, low asset accumulation capabilities of rural households, unfavorable capital market and uncertain investment environment, limited market for the placement of products and services by rural areas, inadequately educated human resources, with low level of private entrepreneurship potential.

5. **Agriculture** remains the predominant activity in most rural areas, characterized by small farm units, low productivity and low farm incomes. A large number of farms are subsistence farms with very small surplus production for the market. The findings of the 2002 Census confirmed that most labor force engaged in agriculture in Serbia falls within the category of the labor force producing for their own needs – subsistence production (75%), while only 20% of those involved in farming production for the market. The proportion of women in agriculture labor force which is producing for the market is extremely low (26.1%), and that has been registered in other transitional countries as well. The remaining 5% are working in jobs requiring manual labor (employees)

Table 7. Active agricultural population according to professional skills

	Total Serbia	Male		Female	
		No	%	No	%
Workers in agriculture – producers for the market	107407	79377	73.9	28030	26.1
Agricultural producers meeting own needs	397278	208475	53.1	188803	46.9
Workers in agriculture for jobs requiring physical strength	24551	17738	72.2	6813	27.8

Source: Census of population, households and housing, 2002

6. **Unemployment** in rural areas is also high (21%), reflecting again the problem of lack of employment opportunities. Underemployment seems to be another serious structural problem of Serbian agriculture and rural economy. The position of the young rural population in the labor market in Serbia is characterized by substantially higher unemployment rates and comparatively lower employment opportunities in relation to the total rural population. The unemployment rates of those up to 25 years of age are nearly three-fold higher in comparison to the average one.

7. **Agricultural productivity**, both land and labor productivity, is below EU averages, due to the low level of input uses (fertilizers, pesticides, seeds) and use of capital (machinery, modern equipment, infrastructure). Agricultural GVA/ha of agricultural land accounts for less than 40% of the EU-25. Agricultural productivity declined severely during the 1990s, due to the war that destroyed significant upstream and downstream industries related to agricultural production (fertilizer industries, machinery factories, irrigation, marketing outlets, processing industries, support services etc) and to international sanctions. The upstream and downstream industries to agriculture are improving gradually as many of those industries are privatized, at low pace though, and the agricultural sector is undergoing a restructuring. These changes have contributed to an increase in the GDP in agriculture and in productivity in the recent years, but productivity remains below its potential, which is considered as very high one.

8. **Agro-food sector capacity** linked to agriculture (upstream and downstream industries as well as food processing industries) has declined dramatically during the 1990s. Most of the remaining industrial capacities need modernization and technological improvement.

9. **Infrastructure** in rural areas, both physical and social, is poor and underdeveloped and it affects negatively rural areas competitiveness and social basics. Maintenance of up-grading of rural infrastructure can improve rural livelihoods and it is considered as prerequisite for attracting and retaining investors. Low-cost affordable solutions are required to respond to local needs, as well as to the limited financial capacities of local governments and rural households. Establishment of innovative mechanisms for proper maintenance and paying for the costs of existing infrastructure will be the critical thing having in mind the limited financial capacity of both the local administration and rural households. The above mentioned infrastructure is primarily owned by local administration bodies, which will need to strengthen their ability to evaluate their asset base and its condition.

10. **Rural poverty** is a much lower incidental in relation to the urban centers. Rural poverty is likely to be high among unemployed, older people who have remained in rural areas despite the deterioration of social services, farmers in more remote areas far from markets, farmers with very small farms and/or those ones with low fertility land and minority rural populations. Regionally, southern Serbia is likely to have higher levels of rural poverty, due to the lower historical levels of household income, greater isolation of rural communities and less favorable conditions for agriculture.

11. **GDP per capita in rural areas** accounts for 74% of the national average and it is well below the urban GDP per capita. The 2007 LSMS results as well as those of 2002, confirm that rural poverty represents one of the crucial characteristics of poverty in Serbia: the percentage of the poor population living in rural areas increased from 55% in 2002 to 61% in 2007; rural poverty in 2007 was almost halved compared to 2002 (9.8:17.7%), but it still remains twice as much as in urban areas (9.8%: 4.3%). The gap between rural and urban poverty has been grown from 1.6 to 2.3%, as a result of less reduction of rural population compared to the urban one.

12. With regard to the **environment**, rural areas of Serbia are rich in ecosystems and biodiversity, which are identified and protected (5 national parks). Environmental pressure from agriculture is not very high due to low input utilization up to now. However, changes in intensity and structure of agricultural production could rapidly make the situation worse. The soil erosion in the hilly land but also in the plain land seems to be an important problem. Another problem is the quality of water that has been deteriorated since the beginning of 1990s, due to lack of obsolete water supply infrastructure and water disinfection. Lack of maintenance in the municipalities' sanitary and sewage systems increase the risk of water contamination.



## 7. Challenges for Serbia towards multifunctional development of rural areas

In last few decades awareness was raised about need for the integrated approach to rural development in Serbia. The concept of multifunctional development of agriculture and rural areas is still present mostly in scientific and political sphere without clear explanation or interpretation as well as mechanisms of implementation. Serbia's rural space is heterogenic and devastated in different extent, and therefore extremely complicated for planning of multifunctional development. Certain moves forward have been made in order to build institutional capacity to support multifunctional development – decentralization of institutions and rural development support, adoption of legislations, upgrading of knowledge, defining and coordination of programs of support through local and foreign funds, yet the multifunctionality as a concept is still not alive in Serbia as it should be.

Serbia is approaching the definition of national rural development priorities (the social, economic and ecological ones), which should be guided by the generally accepted models of the wider environment, first of all by the EU ones. No doubt one of the basic goals is stopping of the negative demographic and economic trends, as well as preservation of natural and cultural heritage of rural areas. Implementation of the mentioned goals is caused by fulfilling of the following tasks (Bogdanov, N., Djordjevic-Milosevic, S. 2005):

- Strengthening of the institutional mechanisms for improvement of socio-economic status of rural areas;
- Support to diversification of rural economy as well as preservation of cultural heritage;
- Development of sustainable agriculture and stopping of further biological degradation (semi) agricultural systems;
- Establishment of the efficient system of land management (including soil protection against erosion, pollution and unadequate utilization);
- Establishment of the system for protection of forests and forest land.

Improvement of life quality in rural areas is closely linked to incentives for diversification as well as the following requirements:

- Development of communal infrastructure in rural areas;
- An increase of the labour employment both at the farms and out of them;
- Greater participation of women as well as excluded social groups in the rural economy;
- Development of small businesses, particularly those ones that rely on traditional and territorial specific activities;
- Education, provision of equipment, support in promotion etc.
- Education and training of young population in traditional rural arts and crafts that support development of tourism, recreation, services for environment as well as quality of products;
- Development of tourism in general.

Any further improvement of Serbian rural economy, based on the requirements of the multifunctional development principles, according to recent experiences and knowledges, require several necessary structural and institutional changes as well as adjustments:

1. Strengthening of the local government capacities for the activities linked with implementation of the rural development programmes and projects;
2. Establishment of the local partnership and cooperation at all levels;
3. Construction of decentralized system of support to rural development through strengthening of extension services, partnership between the public and private sector as well as the governmental and non-governmental ones.

In order to enable active support for rural development, Serbia has to intensify decentralization processes in such way that the process of 'individual competences' taking over should be followed by strong support at local level. Delays and problems that arise at the moment, despite good initiatives at the national level as well as an active financial support of the state, coming from the fact there is neither decentralized system of support nor institutional network for integral approach to the mentioned problem. In order to be utilized available own funds as well as EU funds in the most rationalized way, it is necessary to be constructed capacities for rural development at the local level.

Support for development of specific activities linked with agricultural multifunctionality, as well as the support for low-profitable activities with complex significance for development of rural ambient, have been identified in the governmental programmes as the necessary ones. Appropriate supporting system has not been formulated yet. Support for multifunctional development has necessary be carried out with the assistance of donor funds, but first of all in the transfer of necessary knowledge.

## 8. Conclusion

The Serbian rural economy is experiencing a number of problems. While some rural communities in Serbia continue to prosper, others are experiencing problems of socio-economic adjustment. Differences between rich North and poor South are drastic. Rural areas live in completely opposite social environment form – extremely rich, with living standard on the urban level or higher, to the extreme poverty lacking even basic infrastructure including electricity and water supply, access to transport, social and physical infrastructure, economic infrastructure etc. Opportunities for employment and wealth creation are very limited, mainly due to the lack of diversification and creation of new and innovative opportunities. This contributes even more to the poverty in rural areas and preventing its overcoming as a persistent problem. The quality of the environment in many parts of rural Serbia has also suffered in the face "misled industrial development" or intensive farming, contributing to the shift of population from rural to

urban areas and often generating sharp tensions between conservation and development.

Although most of these problems stem from broad social, technological and economic changes which go far beyond the national boundaries of the Republic of Serbia, only the national agriculture and rural development policy framework in last few years is trying to address them. However, national policy is still addressing all problems of rural areas integrally, although some rural areas and some sectors of the rural economy of the country have experienced problems of structural adjustment, while others face limits on dynamism and diversification. Redesigning rural development policy and multi-annual programming should in the future overcome these problems. The policy framework is considerable changing and adjusting to comply with EU policies and best practice.

In short, as rural areas are subject to the impact of big social and economic forces, oftentimes of international origin (globalization), rural life is changing rapidly and, for the weakest sections of the rural population, to the worst. The government cannot stop these forces, but it can influence substantially some of the changes and help rural areas to adjust, by elaborating and implementing appropriate policy measures. Depopulation of rural areas as a result of poverty, bad employment opportunities and low living standard is the most critical issue. Rural Serbia is despite of various favorable conditions for rural economy development losing its rural social capital and population itself striving to reach urban areas. This is not completely new trend, but emerging phenomena observed is that this process is again speeding up despite of economy crisis in urban areas. On the other side there is an interest of surplus of industrial labor to move back to rural areas, however their access to land and credits, or any other prerequisite to start not just living in rural areas, but do economy to survive is terribly unfavorable.

Parallel to this Serbia is in sector of agriculture facing two parallel and key physical processes, and that is intensification of rural economy, including pressure on natural resources in lowland areas and extensification in mountain areas (but also some lowland areas with bad soils), afforestation and deforestation, development and abandonment. These complex processes result in reductions in biodiversity driven by both overexploitation and neglecting or under-management. High mountain/upland farm areas are extremely vulnerable to social, economic, and political changes in Serbia, leading to further depopulation of rural areas and landscape as well as ecological decline.

The lack of regional levels of government will be overcome by providing space for public-civil sector partnership and activation of capacities of local self-authorities to provide more efficient use of available funds from national budget, as much as to address on time problems in light of future absorption of EU funds. Through these channels will be conducted also work on establishment and/or strengthening of existing local action groups (multi-stakeholder and multi-sector groups) is central task in order to ensure future absorption of EU funds.

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