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#### Introduction

The overall development of population, including agricultural population, is a very complex process, with many interdependent various factors of various kinds – natural and social environment, ecological, cultural, civilization, economic, demographic, political and other realities of the geographical system (its logic and its laws).

The influence of various determinants is very changeable, is space as well as in time; therefore, in this paper will be presented the main characteristics of the Serbian agricultural population, those that chiefly influence its distribution and its structure, and thus also influence the characteristics of the agricultural production in Serbia.

Of the 4,027 villages in Serbia<sup>1</sup> after the Second World War, only 20 villages had a population growth above the natural increase, while in 3,097 villages the population decreased by more than 50 %.

According to the 1991 census, Serbia at that time had, for the first time in its history, more people in towns than elsewhere. If we look at this proportion regionally, we see similar characteristics of Vojvodina and Central Serbia, while Kosovo and Metohija there are still more people (67.5 %) in non-urban then in urban settlements. Over the last few decades of the 20<sup>th</sup> century, two of the Serbian macro-regions, Vojvodina and Kosovo and Metohija have exhibited totally different patterns of population growth.

Namely, the population is rapidly growing in (territorially smaller) Kosovo and Metohija, while in Vojvodina there is only moderate growth, and, recently, a decline of population. Apart from this, there is a spatial polarization in the dynamics of the population migrations (involving the agricultural population, too) in Serbia.

From 1953 to 1991, in Serbia, the agricultural population declined both absolutely and relatively, from 4.7 million (66.7 %) to 1.7 million (17.6 %) $^2$ . The data about the changes in structure of agricultural population are pointing to the tempo of economic development and to changes in the social and economic relationships. As a rule, the transfer of population from agriculture to towns was selective – young people, capable of work, mainly men, left the villages. This had significant consequences for the overall population structure by age and gender.

The changes were the fastest in Vojvodina, in which, in 1991, more than half of all the municipalities had less than 20 % agricultural population, and some of them, with a higher degree of urbanization or in more favourable geographical position for traffic and transportation, have under 10 %.

Vojvodina in the north, Middle (or Central) Serbia, and, far to the southwest and south, Kosovo and Metohija.

These changes fit the world-wide trend of a decline in agricultural population. The participation of agricultural in total population of the world has been reduced from 51.4 to 1975 to 45.1 % in 1990, and in Europe from 15.4 to 8.5 (FAO, 1991:31).

<sup>&</sup>lt;sup>1</sup> Serbia is one of the two federal units (Republics) composing the Federal Republic of Yugoslavia. Total area of Serbia is 88,361 km² and there are 9,778,991 inhabitants in 6,153 inhabited settlements, according to the 1991 census. The other federal unit (the other Republic) is Crna Gora, also known as Montenegro, with 584,30 inhabitants, 1,240 inhabited settlements and area of 13,812 km². From the administrative and political aspect, the Republic of Serbia is divided into 3 administrative parts or macro-units: Voivodina in the north. Middle (or Central) Serbia, and, far to the southwest and south. Kosovo and Metohiia.

Table 1. Change of overall and active agricultural population.

	Number of	(%) of the	Active agricultural		(%) of total		
	agricultural population	total population	number	(%)	number of active		
1953							
Serbia	4 656 608	66,7	2 485 489	53,3	73,5		
Central Serbia	2 993 822	68,2	1 745 415	58,3	74,8		
Vojvodina	1 077 983	62,9	534 493	49,6	68,7		
Kosovo and Metohija	584 803	72,4	205 581	35,1	76,6		
1991							
Serbia	1 666 186	17,6	1 028 115	61,7	24,6		
Central Serbia	1 008 129	18,0	741 960	73,6	27,0		
Vojvodina	269 438	13,7	149 583	55,5	17,1		
Kosovo and Metohija	388 619	20,5	136 572	35,1	24,9		

Source: A group of authors, "Population and households in the Republic of Serbia according to the 1991 census. Godine, p. 273, Beograd (Belgrade), 1995.

Only in some, mainly underdeveloped and strongly depopulational municipalities of Vojvodina does the agricultural population make between 20 and 40 % of the total population. At the same time, in most municipalities of Vojvodina the proportional participation of active population in the agriculture population is low, which is a consequence of employment in non/agricultural parts of the economy, reduced need for human work-force in agriculture (due to improved agro-technological measures), and also a consequence of large demographic changes (particularly the acceptance of birth control amongst the rural population) and of other factors.

All the above-mentioned demogeographic factors have seriously undercut the reproduction and renewal of labor force in Serbian agriculture, causing an increased activating of women and of old men on the farms.

While Vojvodina is characterized by relative homogeneity, municipalities (border-yones and hilly and mountainous zones of Serbia) active population still predominates in the primary sector. Lower participation of agriculture active population in the total population has occurred in the areas where there had been favorable conditions for a more intensive process of industrialization and for development of economic activities in the tertiary and quaternary sector, and these were areas along the major traffic and transportation corridors or in the immediate proximity to cities (municipalities on the periphery of, or in the vicinity of, the capital city of Yugoslavia, Belgrade).

Reduction of agricultural population is characteristic also of Kosovo and Metohija; it happens, there, as a result of changes in the structure of agriculture, and also because of increased importance of industry and mining in the northwestern part of that macro-unit, and because of reduced importance of cattle-growing in the southern parts and increased emigration from them.

Changes in the proportion of agricultural population in the total population have been the smallest in the traditionally agrarian municipalities in the Metohija valley.

The absolute and the proportional decline of the agricultural population has been accompanied by an increased rate of farmers' activity, particularly in Central Serbia, somewhat less in Vojvodina, while in Kosovo and Metohija macro-region<sup>3</sup> this rate remained approximately the same. But there are strong regional differences within macro-units, too. The lowest rates of activity of agricultural population (in the year 1991) have been noticed in Kosovo and Metohija, down to 40 % in municipalities with predominantly Albanian population, while higher rates were recorded in the municipalities with predominantly Serbian population.

In the southern parts of Central Serbia, in municipalities that are similar to Kosovo and Metohija resemble in other demographic elements too, very low rates of activity have been noted. More than average participation of active farmers in Central Serbia is noticed in

<sup>&</sup>lt;sup>3</sup> The unchanged level of the rate of activity of the farmers in Kosovo and Metohija can be brought into question because of the large irregularities in the conduct of 1991 census in this macro-region, also because of methodological vagueness in interpreting the instructions about the activities of women.

depopulational eastern areas (with a very pronounced process of aging), then areas in the valleys of the Velika Moravia river, Zapadna Morava river, in the upper course of the Juzna Morava river, and in the mountainous municipalities in the south-western parts of Central Serbia.

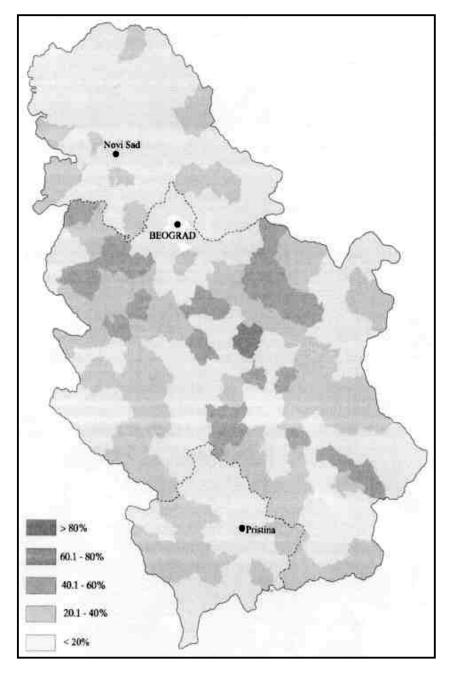


Figure 1. Participation of agricultural population within overall population of Serbia in 1991.

Voivodina is characterized by а relative stability of the farmers' rate of activity. Somewhat greater rates of activity (60 to 80 %) are characteristic for the north of Vojvodina and for areas under the immediate influence of Beograd and Novi Sad, while the entire region of Banat, middle Backa and Srem are characterized by 40 to 60 % rates of activity.

Reduction of the number of farmers is a reflection of the rural exodus. and. simultaneously. result of the poorly developed agriculture (characterized by peasants' small and scattered fields, and by predominantly autarchic of low production orientation), which in most cases does not provide good standards of living.

On the basis of this, we may conclude that the Serbian agricultural population

as a whole, and its active segment, after the Second World War, have been decreasing very rapidly, with an evident spatial unevenness of the process of deagrarization.

Because of the limited potentials of the environment in the hilly and mountainous areas and their insufficient involvement in social and economic processes, the rate of development of non-agrarian business is lagging behind the rate of restructuring of the agricultural population, so that the population, when leaving farming as business, also in large numbers leaves such areas.

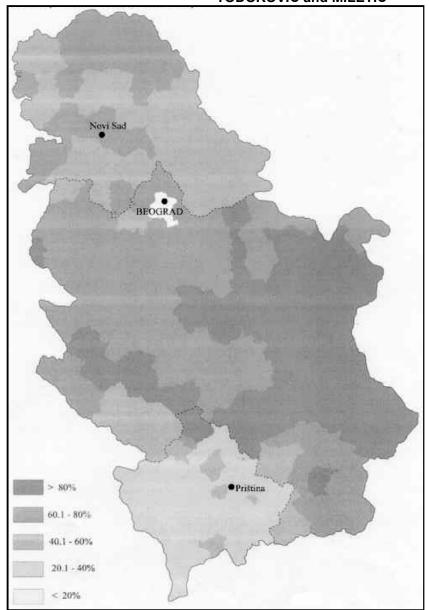


Figure 2. Participation of active agricultural population within agricultural population of Serbia in 1991.

# Density of Agricultural Population of Serbia

Agricultural population's role. importance. territorial distribution cannot be viewed and analyzed in a simplified manner. primarily because of the fact that precisely the countries with a small proportion of agricultural population are achieving high agricultural production. and, vice versa, countries with a large proportion of agricultural population have small or minimal agricultural productivity. The importance of the agricultural population is clearly seen only when it is connected with other important components of the development agriculture of and geographic space. One of the connecting characteristics is the population density, showing the level

of concentration in various areas. Some of the connecting characteristics are the population density, showing the level of concentration in various areas. Some of the numerical densities will be presented in this paper<sup>4</sup>.

General population density (proportion between the total population and the total real land surface) and general agricultural population density (proportion between the total population and total real farming land surface) – Because of the increase of the total number of citizens in the period 1961-1991, general population densities have increased but not much in Central Serbia and in Vojvodina, very much in Kosovo and Metohija, while the border-zone municipalities (except at Kosovo and Metohija) are showing a decrease of the general population density. Simultaneously, at the entire researched area there is a noticeable increase of the general density of agricultural population.

Specific agricultural population density (proportion between the entire agricultural population and the real farming land surface).

Unlike the above-mentioned densities, the specific agricultural population densities have, in the observed period, significantly fallen.

<sup>&</sup>lt;sup>4</sup> According to some estimates, the participation of old population in most of the European countries is continually increasing, and is expected to reach 20 % at the beginning of 21<sup>st</sup> century (Kirk M., 1981).

The index of decrease for Serbia is 54. This reflects the reduced population growth by natural increase (except in Kosovo and Metohija) and unfavorable trends in the age-structure of the agricultural population; also, it reflects the very strong migrational movements out of the villages and into the cities. Regionally viewed, there are great differences: while Vojvodina is having a sharper-than-average fall in these densities, in Kosovo and Metohija this fall is almost imperceptible. Also an imperceptible reduction of this density is seen in the traditionally agricultural regions of Central Serbia.

Agriculturally productive population density (proportion between active farmers and the real farming land surface) – Analysis of population densities of this sort shows their significant reduction in the observed period. This can be judged as a negative process, because this decrease has not been compensated by modernization in the agricultural production.

Density/Territory	General density		General agricultural density		Specific agricultural density		Agriculturally productive density	
	1961	1991	1961	1991	1961	1991	1961	1991
Serbia	86	111	129	161	72	39	38	23
Central Serbia	86	104	138	168	100	113	167	271

100

167

94

180

Table 2. Population densities.

86

86

and

Vojvodina

Kosovo

Metohija

Source: M. Todorovic, *Gustine naseljenosti poljoprivrednog stanovništva u SR Srbiji* ("Agricultural Populaltion Densities in Serbia"), Zbornik radova Geografskog instituta "Jovan Cvijic" SANU, br. 40., str. 221, Beograd, Yugoslavia, 1988.

113

271

52

107

21

65

23

41

14

From the analysis of the population densities we can conclude that in the second half of the 20<sup>th</sup> century, in most municipalities in Vojvodina and Central Serbia there was a significant reduction of the population potential engaged in farming and cattle-growing, and that this process was faster in Vojvodina, south-eastern Serbia, and in mountainous area of the Republic. Also, it is evident that southern-Serbian monicipalities bordering on Kosovo and Metohija are assuming some of the characteristics of Kosovian and Metohijan municipalities, which is the result of immigration into them from Kosovo and Metohija.

# Agricultural Populations' Structure by Age and Gender, and the Position of Women in Agriculture

The *age structure* of the agricutural population in Serbia is a very special vase, a result of multidimensional, multiply-meaningful socio-economic processes and changes. It is a generally-known fact that agriculture is being abandoned mainly by the young, for mainly three reasons: (1) going away to continue schooling in town, (2) going to town to get a non-agricultural job, and, (3) making marriage with a person who lives and work outside the rural areas (this is done mainly by women, especially those who are in the fertile period of life). The age structure of the population is particularly important for agrarian-geographic research, particularly for their segment dealing with how the contingent of work-force in agriculture because this, Serbian agricultural work-force is approaching the demographic old age, with very pronounced regional characteristics.

In the last few decades of the twentieth century, there was a great decline of the young population (up to 19 years of age) from 41.6 to 30.5 % with an increase of the participation of the old (over 60 years of age) from 8.8 % to 16 %. According to the projections, this trend will continue, so that is expected that in Central Serbia by the year 2011 the agricultural population will fall to only 9.4 %, of which at least 50 % will be over 60 years of age, while only 11.5 % (less that 62,000 persons) will be younger than 20 years of age $^5$ .

<sup>&</sup>lt;sup>5</sup> According to some estimates, the participation of old population in most of the European countries is continually increasing, and is expected to reach 20 % at the beginning of 21<sup>st</sup> century (Kirk M., 1981).

Spatial polarization of the demographic development in Serbia is becoming more and more pronounced, which is noticeable in the farmers' age structure in various macro-regions, with Kosovo and Metohija, who are in the stadium of demographic youth, obviously diferring from Central Serbia and Vojvodina, who is in the stadium of demographic old age.

It has been empirically proved that the general aging of agricultural population brings consequences such as more conservative attitudes, more difficult adjustment to changes introduced by technical and technological advances (innovations in agriculture), insufficient initiative, inadequate education, increased expenses for medical insurance, etc.

Gender structure is also an important factor in the economic activity of the population in an area. The post-World-War-Two process of intensive industrialization and deagrarization has caused an increase in the number of mixed households, which inevitably increased the engagement of women in agriculture, because, as a rule, men go and find jobs outside of agriculture while women stay on the land.

From the year 1961 to 1991 participation of active women in Serbian agriculture has risen by four percentage points (from 42.0 to 46.4 %). Since 1980-es, female workforce constitutes, in the agriculture of Central Serbia, more than half (51.2 %) of the active farmers. In that period, reduction of female participation has been noticed only in Vojvodina, and can be explained only by stronger orientation towards field farming, in which there is less room for female labor.

Activity of women is, on the average, smaller in Kosovo and Metohija, which proves a world-wide known rule that the lowest rates of economic activity by women are found in the predominantly Islamic (Muslim) population<sup>6</sup>.

Strong regional differences, and also the spatial homogeneity of the gender structure of the agricultural population of Serbia, are clearly illustrated by the data about the participation of women work-force in the active agricultural population. This is the lowest of Vojvodina and in Kosovo and Metohija. Within Vojvodina, this rate is lower than average in the municipalities of south-western Vojvodina, and higher in north-western.

In Kosovo and Metohija, the rate is higher in the municipalities with predominantly Serbian population. In Central Serbia, activity of women in agriculture is higher than average in most municipalities in eastern Serbia (fig. 2).

These statistical data are also supported by empirically known facts which, however, show that hard labor in agriculture is mostly done by men (during weekends, vacations etc). The reasons for increased activity of women is to be found in economic necessity, not in their free will.

These trends of women's increased engagement (enforced by circumstances, not voluntary) in agriculture are the reason for women's increased wish to leave the villages. Whatever work the men do not find the time to complete, women must complete, particularly the work around the cattle, and sometimes all other kinds of work) and there is also the household to keep up, and children to be raised. Intensification of female labor in agriculture leads, often, to structural changes in the production. As we noticed in our research on the terrain, woman is in most cases both the agricultural producer and the housewife. For this reason, she abandons all forms of agricultural production which would separate her for long periods of time, during the year, from the household, and she orients herself more to the kind of production that can be organized in the house-yard and in the vicinity (such as cattle-raising and gardening). According to the results of research, among the agricultural population the number of illiterate, uneducated or poorly educated is greater among women that among men. Therefore, the increased engagement of women in agriculture is slowing down the technical and technological progress of agriculture and its further development.

#### **Educational Structure of Agricultural Population**

In our general analysis of the agricultural population of Serbia and of this population's potential for work, a very important factor is the educational structure of this population.

<sup>&</sup>lt;sup>6</sup> The lowest rate of female activity is in Kuwait 0.4 %, but it is also very low in Jordan 2.6 %, and in Libya 4.2 % (*Wertheimer-Baletic A.*. 1982:267).

In the conditions of modern agricultural production, characterized by quick development of science and technology, there is an imperative need for the educational level of the farmers to be higher. This is precisely why the education of the agricultural population gives an obviously great contribution to the general development of the country: farmers"education influences their productivity and their ability to adapt to new circumstances.

Immediately after the World War Two, low level of education was a general characteristic of Serbian population, but it was particularly low among the agricultural population. In the last few decades of the 20<sup>th</sup> century, the educational structure of this contingent of the population has improved but remained very low, far below the European average. In 1991 the educational level of active agricultural inhabitant of this Republic has arrived to nearly completed elementary school (which is an 8-year school, pupils from 7 to 15 years of age). In the macro-region Vojvodina, the situation is somewhat more favorable, and in Kosovo and Metohija more unfavorable. Regional differences the educational level of active agricultural population are rather large, and they mainly coincide with the level of economic development, namely, the educational level is somewhat higher among the agricultural population in the more developed municipalities, cities and near-city settlements.

Table 3. Active agricultural population by education (%).

Territory/Year	No education	4-7 years of elementary school and complete elementary school	with secondary higher or high education
Serbia			
1953	45.64	54.30	0.06
1991	23.12	70.26	6.09
Central Serbia			
1953	47.07	52.86	0.06
1991	25.26	69.00	5.20
Vojvodina			
1953	29.92	69.69	0.10
1991	11.77	77.31	10.46
Kosovo and Metohija			
1953	72.45	27.49	0.05
1991	23.12	70.26	6.09

Notice: difference to 100 % is filled by persons with unknown level of education.

Source. M. Todorovic, S. Mihajlovic, "Educational Characteristics of Active Agricultural Population of Serbia", Geografski godisnjak (Geographic Annual), SGD-podruznica Kragujevac, pp. 31-40, Kragujevac, Yugoslavia, 1995.

In Serbia in the period 1953-1991, the number of active farmers without any education has been reduced from 45.6 % to 23 %. The category of active agricultural population with only elementary school has been reduced an absolute number, but increased proportionately from 54.5 % in 1953 to 70.2 % in 1991 (*Todorovic M., Mihajlovic S.,* 1995: 34). This information shows that a new socio-economic process has begun: the total number of farmers is declining but their educational structure is improving. It is important then this rising trend is noticeable also in the segments that have finished secondary, higher, or high education. Although the improvement of educational level is strong among the active farmers, there is still a large number of inhabitants (as much as 25.26 %, one in four) without any education, and one in seven is illiterate. In noting this face, we must stress that most of the illiterate belong to the category of old (aged) population.

It is beyond doubt that in the future Serbian agriculture, instead of an illiterate or semiliterate peasant, a *farmer-expert* will be needed, with the ability to accept and implement the results of modern technical and technological development.

<sup>&</sup>lt;sup>7</sup> The European average of education of active farmers is at the level of finished secondary school, and more than 20 % of them have finished high school (equivalent of American college).

### Types of Agricultural Population's Concentration

Contemporary territorial distribution of population, including agricultural population, is one of the important elements in planning the regional and rural development. In this paper, the analysis of spatial grouping of relevant categories of agricultural population has been presented through the indexes of concentration and of productivity levels of the active farmers, showing the proportion between the area surfaces (or, total agricultural production) and inhabitants (active farmers) in some region.

In the territory of the Republic of Serbia, five types of concentration of agricultural population have been discerned<sup>8</sup>:

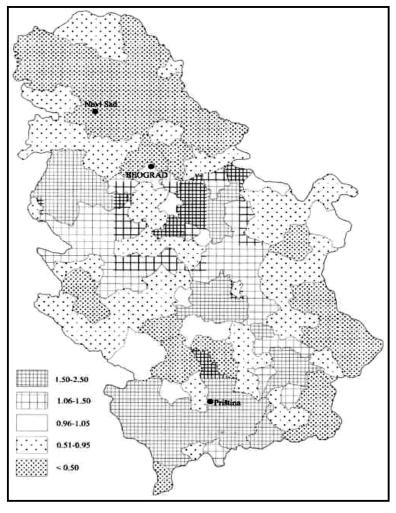


Figure 3. Concentration degree of agricultural population in Serbia, 1991.

(1) Very low concentration type (0.00 to 0.50); according to 1991 census. municipalities (25,5 % of total number of municipalities in Serbia) belonged to this type. Low level of concentration is shown by the fact that these municipalities contain 29.9 % the total agricultural surfaces Serbia but only 10.9 % of the total agricultural population of Serbia. In this group are: most of the municipalities in Vojvodina, several municipalities (those more agriculturally oriented) of the capital city, hilly mountainous and municipalities of western parts of Serbia, part of Kosovo and Metohija (the predominantly part with Serbian population), and most of the depopulational, border-yone municipalities of south-eastern Serbia.

- (2) Low concentration type (0.51. 0.95): 53 municipalities (28.6 %) with 30.3 % of the total agricultural surface, but with 20.6 % of the total agricultural population. This type is found in most municipalities of eastern parts of Serbia, in southwestern parts of Serbia, in southern municipalities at the periphery of Belgrade, and in southwestern and northern parts of Vojvodina.
- (3) Average concentration type (0.96 to 1.05); found in only 9 municipalities according to the element of concentration of agricultural population and in 14 municipalities according to the activity of agricultural population.

 $<sup>^{8}</sup>$  Index of concentration – I<sub>k</sub> =  $\frac{Vo}{Po}$  :  $\frac{Vr}{Pr}$  where Vo and Vr are the population of a municipality and of the Republic (Serbia), while

Po and Pr are the agricultural surfaces of a municipality and of a Republic.

- (4) High concentration type (1.06 to 1.50); found in 31 municipalities (16.8 % of the total number of municipalities) in Serbia, with 14.3 % of the rural agricultural surface but 18.3 % of the total agricultural population. Spatially it forms a corridor between very low concentration type and low concentration type, and is mainly found in central parts of Serbia, not found anywhere in Vojvodina, and found in only one municipality in Kosovo and Metohija.
- (5) Very high concentration type (above 1.51); found in 43 municipalities (23.2. %), extending over an area of 20.7 % of the rural agricultural surface, but containing 45.1 % of the Ronal agricultural population of Serbia. This is found mostly in the traditionally agricultural areas? North-western Serbia, valleys of Velika Morava, Zapadna Morava and Juzna Morava rivers, and in Kosovo and Metohija.

The other synthetic indicator is the active farmers' productivity level,<sup>9</sup> expressed by the amount of total agricultural production (in wheat units<sup>10</sup>) per capita of active farmers. Values thus obtained were compared with Serbian average, and in this manner the regions with similar demographic and productive characteristics were discerned:

- (1) Very low level of active farmers' productivity with the coefficient 0.00 to 0.50, which is the case in 63 municipalities (34 % of the total number of municipalities) in Serbia, of which 55 are the municipalities in Central Serbia and 9 in Kosovo and Metohija. As many as 40.7 % of all the active farmers in Serbia<sup>11</sup> live in these municipalities, and yet they produce only 14,2 % of the total production. The reasons for this are in physical-geographic and also in demographic-geographic factors of the development of agricultural production. Low level of valorization (putting to good use) of the natural conditions for agricultural production in the hilly and mountainous regions; low level of exploitation of agro-technological innovations; extremely unfavourable age structure (except in Kosovo and Metohija); and, unfavorable education structure these are, definitely, the decisive factors.
- (2) Low level of active farmers' productivity means coefficients between 0.51 and 0.95. This is the case in 53 municipalities (28.6 %) in Serbia. In these municipalities live 38.1 % of all active farmers, but they make only 23.4 % of the total agricultural production. Thus we see that 116 municipalities (62.8 %) are in the productivity groups below the Republic's average. Those two types engage 78.8 % of the active farmers, and they produce 37.6 % of the total agricultural production. By better directing of regional and rural development it should be possible to improve the production capacity, and importance, of these regions.
- (3) Average and high level of active farmers' productivity coefficients from 0.96 to 1.05 and from 1.06 to 1.50. Only 16 municipalities in all Serbia belong to this type. Together, they do not exceed 7 % with their participation either in active population or in production.
- (4) Very high level of active farmers' productivity the coefficient is higher than 1.51 and this is the case in 53 municipalities (28.6 %) in Serbia. This type is spatially very homogeneous and includes all the municipalities in Vojvodina, 2 municipalities in Central Serbia and 2 in Kosovo and Metohija. This type, with very high level of active farmers' productivity, concentrates 14.7 % of the total number of active agricultural producers, but they make more than half of the rural agricultural production in Serbia (55.6 % of the total amount of wheat units). How great these differences in the volume of agricultural production are, is best shown by the fact that one single municipality in Vojvodina produces as much as 27 municipalities in the very low productivity group (Map. 4).

 $<sup>^{9}</sup>$  Productivity of the work of the active farmers  $P_a$  = U/R where U is the total agricultural production expressed in wheat units. And R the number of active farmers.

<sup>&</sup>lt;sup>10</sup> Wheat units is the conditional unit of agricultural production (a conversive coefficient), accepted by FAO, where the value of any agricultural product is reduced to the value of wheat (on the basis of protein and starch content). Total agricultural production in Serbia in 1991 was 214,570,962 wheat units. More details about the manner of conversion: Todorovic M., *Geografske osnove tipologije poljoprivrede Srbije (Geographic Bases of the Typology of Agriculture in Serbia)*, doctoral dissertation, pp. 56, Beograd, Yugoslavia, 1998.

The percentage of active farmers in this very low productivity group is probably even higher. Namely, because of varying understandings of the definition, and because or mistakes in defining "activity" among the female Albanian population (in Kosovo and Metohija), a peculiar contradiction appears. Knowledge from the terrain indicates that Albanian women are more active in agriculture than they say they are, so that, in our estimate, all the remaining municipalities of Kosovo and Metohija found in the next group, the low level productivity group, are in fact in the very low level productivity group.

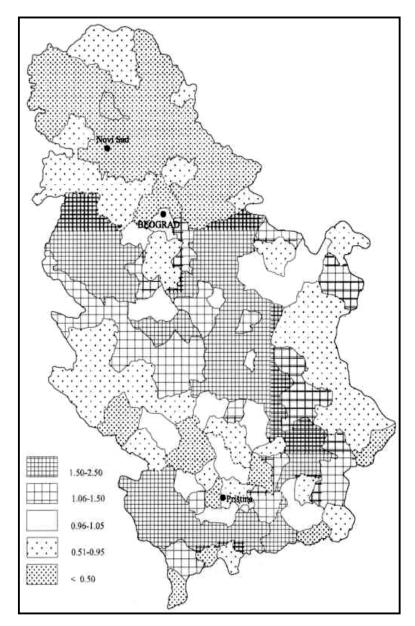


Figure 4. Concentration degree of active agricultural population in Serbia, 1991.

According to some estimates, today's Serbia could feed 26,508,300 people (2.7 times the number of inhabitants today), but an analysis of security of feeding shows important regional differences.

Characteristics nourishment insecurity or of very low security are found in all municipalities in Kosovo and Metohija, and in large urban centers all over Serbia (Nish, Belgrade, Novi Sad). Unlike them, the hilly and mountainous regions, and most of the border-yone municipalities, are characterized bν aboveaverage positive conditions nourishment security. Many studies of the abonament of villages Serbia and obtaining employment outside villages have pointed out that the causes are primarily in the advantages of permanent employment.

Serbian peasant knew that only a permanent employment (steady job) will bring him health insurance.

social insurance and pension insurance, and other forms of social and economic security. As a peasant, a private farmer, he could never get any of these benefits. Also, the salary provided by the Socialist State was much higher that any income a private farmer was ever allowed to earn. And, finally, the conditions for satisfying the modern civilization requirements of life<sup>12</sup> were much better in town than in a village.

In the process of population mobility in Serbia, three basic directions can be discerned: first, general migration towards Belgrade, which is the center of political, cultural, educational and administrative life of the Republic; second, movement towards regional centers; and third, towards municipal center (which means, capital towns of each municipality) and to near-city settlements (distant suburbs of cities). In all three cases, the agricultural population migrated, which had an effect on agricultural production. Apart from these three directions, there was one more form, daily migration of village population to and from cities. Such people continued to live in a village, but had a job in town. In this manner, a large number of the so-called mixed

<sup>&</sup>lt;sup>12</sup> For instance, of all the doctors (of medicine) in Serbia in 1991, approximately ont third was employed in Beograd (there were 24,509 medical doctors, and of this number, 6, 781 worked in Beograd). If there were information about small-town and village areas, the picture would be far worse. Source: "Opstine u Srbiji 1993" (Municipalities in Serbia 1993"), RZS, Beograd, Yugoslavia, 1994.

households were created. Economic interest was decisive in this instance, too. Namely, by getting a job outside of agriculture, but staying on the land, it was possible to achieve the security and benefits of State employment while having also an additional source of income – the farm. Empirical evidence has proved with full certainty that in many cases this option was chosen also because of psychological factors – a strong wish not to sell the house and land, not to give family inheritance away to strangers, not to be cut off from the roots, etc.

When we consider how the village die out, which is one of the processes in the development and movement of agricultural population, we ought to mention a tendency, namely, the villages with less than 500 inhabitants die out faster, and many have already died out completely (population has fallen to zero). The *critical mass* which is necessary for a village to survive is still known exactly. Our observations are that small villages in the mountains, consisting entirely of pure farmers, disappear more quickly, while villages with many mixed households have more vitality.

According to some studies in agrarian geography, in the last few years of the 20<sup>th</sup> century in more developed countries a trend was noticed towards slower depopulation and gradual repopulating of rural areas. As A. Gilg (Gilg. A., 1985: 70), says, "many researchers were not ready to recognize this phenomenon quickly". Dean<sup>13</sup> remarks that the returnees are mainly elderly people, of higher social status, from developed regions. This phenomenon is not easy to explain, it is much more complex than it looks at first sight. Some of the reasons of reaffirmation of the villager are: wish to live in village-type habitats; possibility of employment in new industries in village areas< and, regional planning performed by those governments who accepted the first two developmental factors of post-industrial societies and aimed to increase the level of services and third-sector employment (neither industry nor agriculture; services etc.).

Many authors had predicted that by the end of the 2<sup>nd</sup> millennium, the process of repopulating of villages will become faster; they have ascribed this trend to inevitable growth, improvement and application of electronic, tele-communication and computer technologies. J. Nilles (Nilles J., 1991: 202) sees real chances for the villages to survive, with fundamental transformation, if the most recent informational and tele-communicational technologies are applied, so that work-force can be dispersed, which means teleworking from home. Namely, an increase is expected in the number of those who will desire to live in rural ambience but remain connected to their job through their computer, electronically. This, of course, will not directly influence the conditions for development of agriculture and villages, but indirectly it will, and in fact some indirect effects are already beginning to be seen, particularly in the elevating of the level of socio-economic conditions of living in rural areas. According to most authors, the process of repopulation of villages is accompanied by the return of younger generations into the villages, and particularly the return of highly educated young people of high social strata, who see in village life an opportunity for big income, fast growth of their capital, and healthy life. As a rule, they move into those rural areas which are near the cities, so as to retain for themselves the privileges of life both in the village and in the city (Todorovic M., Miletic R., 1997: 101-102). In Serbian scientific practice this phenomenon has not yet been observed. We may assume that the next census, in the spring of the year 2002, will show some mild processes of reversion and return. In Yugoslav conditions, this would not be the result of the villages' attractiveness, but rather the result of the worsening of the general economic situation in the cities (unemployment, economic insecurity, impossibility of buying an apartment, general decline of the quality of life, etc.).

#### References

**Dean, at all.** (1985), Counteurbanisation and the Characteristics of the Persons Migrating to West Cornwall, Geoforum 15.

**Korac, M.** (1991), Integralni razvoj sela i dometi obrayovanja seoskih zena ("Intergrl Development of Villages and Educational Attainment of Village Women"), Zbornik matice srpske

<sup>&</sup>lt;sup>13</sup> Dean at al., *Counterurbanisarion and the Characteristics of the Persons Migrating to West Cornwall,* Geoforum 15, preuzeto iz Andrew Gilg., *An Introduction to Rural Geography* Edward Arnold, str. 70, London 1985.

za drustvene nauke (Matica Srpska Collection of Works in Social Sciences), Novi Sad, Yugoslavia.

Gilg, A. (1985), An Introduction to rural Geography, Edward Arnold, London.

**Grupa autora** (a group of authors), "Stanovnistvo i domacinstva Republike Srbije prema popisu 1991 godine" ("Population and Households of the Republic of Serbia according to the 1991 Census"), p. 273., Beograd, Yugoslavia, 1995.

**Kirk, M.** (1981), *Demographic and Social Change in Europe*, 1975-2000, Liverpool University Press.

**Markovic, P.** (1994), *Poljoprivredni atlas Srbije (Agricultural Atlas of Serbia)*, volumes I, II, Odbor SANU za proucavanje sela (SAAS Group for the Study of Villages), Beograd, Yugoslavia.

**Mihalic, V.** (1985), *Opsta proizvodnja bilja (The general production of croppers),* Skolska knjiga, Zagreb.

**Nilles, J.** (1991), *Teleworking from Home, Information Technology Revolution,* New York. Opstine u Sebiji, 1993, ("Municipalities in Serbia, 1993"), RZS, Beograd, Yugoslavia, 1994.

**Todorovic, Marina,** (1988), *Gustine naseljenosti poljoprivrednog stanovnistva u SR Srbiji ("Agricultural Population Densities in Serbia")*, Zbornik radova Geografskog instituta "Jovan Cvinic" (Collection of Works of the Geographical Institute 'Jovan Cvijic"), number 40., Beograd, Yugoslavia.

**Todorovic, M., Mihajlovic, S.** (1995), Obrazovne karakteristike aktivnog poljoprivrednog stanovnistva Srbije ("Educational Characteristics of the Active Agricultural Population of Serbia), Geografski godisnjak SGD – podruznica Kragujevac (Geographical Annual of the SGD / local branch Kragujevac), pp. 31-40.

**Todorovic, M., Miletic, R.** (1997), Attitude of the young to rural and urban life – comparative analysis, u: Mladi i selo, zbornik radova sa Vlasinskih susreta, Zavod za sociologiju razvoja sela, Jugoslovensko udruzenje za sociologiju sela i poljoprivrede, Vlasotince.

**Todorovic, M.** (1998), Geografske osnove tipologije poljoprivrede Sebije (Geographic Bases of the Typology of Agriculture in Serbia), doktorska disertacija, Beograd.

**Wertheimer-Baletic, Alica,** (1982), *Demografija, stanovnitvo i ekonomski razvitak,* (*Demography, population and economical development*), Ekonomska biblioteka, br. 1-2-3., Zagreb

\*\*\* **FAO**, (1991), Yearbook, *Production 1990*, vol. 44, p.p. 34, Rome.