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## Who Is Still Engaged in Agriculture in Vojvodina?

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## **Abstract**

In the territory of Serbia after the Second World War, the largest percentage of the population was engaged in agriculture. Industrialization in the post-war period and intensive rural-urban migration have led to a significant reduction in the number of people still engaged in agriculture. There are some differences in certain ethnic groups. In some groups, larger number of inhabitants stayed in the countryside and were engaged in agriculture, while in others, there was more intensive abandonment of the countryside and relocation to cities or departure from Serbia to some other country.

The aim of this paper is to determine which ethnic groups, according to the Census of Population in 2011, are mostly engaged in agriculture in the area of Vojvodina, at the time when the percentage of the agricultural population in the northern Serbian province is reduced to only 4.4 % or to around 85,000 inhabitants. The analysis used data on the agricultural population and ethnic groups of the Statistical Office of the Republic of Serbia. Detailed data by ethnic groups were obtained by additional processing of the data of the Statistical Office of the Republic of Serbia. Descriptive statistics were used for data analysis, and the cartographic method was used for the clear presentation of the obtained results.

**Keywords:** agricultural population, ethnic groups, Vojvodina.

### 1. Initial considerations

Region of Vojvodina, in geographical terms, includes the northern part of Serbia, northwards from Sava and Danube. It consists of three mesoregional units: Banat, Bačka and Srem. In statistical terms in the territory northwards from the Sava and Danube rivers, the Region of Belgrade stands out, which includes the southwestern part of Banat and the south-eastern part of Srem. Vojvodina covers one quarter of Serbia, and about 27 % of the population of Serbia lives on its territory.

The majority population in Serbia is made up of Serbs, who participate in ethnic structure with 83.3 %. Other ethnic groups are also present, but the largest percentage is made up of Hungarians (3.5 %), Roma (2.1 %) and Bosnians (2.0 %). Other ethnic groups are also significant, but they participate in ethnic structure with less than one percent.

In Vojvodina, Serbs are also the majority population. According to the 2011 Census, they accounted for 66.8 % of the total population. They are followed by Hungarians (13.0 %), Slovaks (2.6 %), Croats (2.4 %) and Roma (2.2 %). The ethnic groups of Albanians and Gorani who inhabit

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in larger number the south of Serbia should be singled out here, but they are also present in the area of Vojvodina. According to the statistics, Albanians make only 0.1 % in Vojvodina, however, there are significantly more of them. Members of this ethnic group have boycotted Population Censuses on the territory of Serbia since 1991, so the numerical status of this ethnic group in Serbia is unknown. According to the 2011 Census data, undecided and undeclared were recorded, with 2.2 % in Serbia and 4.2 % in Vojvodina of the total population. Research on the change in the gender and age structure of the population in the area of Vojvodina, carried out in 2016, indicated that the members of the Albanians, Bosniaks and Gorani are those who are largely undecided and undeclared. This is indicated by age pyramids, which is regular, expansive with the undeclared and undefined, as well as with Albanians, Gorani and Bosniaks. In addition, other indicators of the sexage structure of the population, such as the age index, arithmetic age of the population, medial age of the population, age coefficients, in the undeclared are the most similar to the values of these ethnic groups (Bubalo-Živković, 2017). In the territory of Serbia, 21 ethnic groups with more than two thousand members were separated. In the group "Others" are all members of ethnic groups with less than two thousand members, including the Czechs, Egyptians, Jews, Ashkali, and others (Internet 1). The multiethnicity of Serbia is the highest in the north of Serbia, that is, in the Region of Vojvodina.

Different ethnic groups have different primary activities, and thus a different share of the agricultural population. The aim of this paper is to determine which ethnic group has the largest share of the agricultural population and which is the least engaged in this activity. Namely, the aim is to determine which ethnic groups have kept agriculture as a significant activity to this today, as several centuries ago when they settled in these areas.

# 2.Historical immigrations to the area of Vojvodina and connection with activities of certain ethnic groups

The area of Vojvodina was a constant migration area. It has been inhabited since prehistory. A number of sites from pelolite, mesolite and neolite have been found which indicate the continuing population (Kovaćević, 2009). The population settled in these areas due to favorable living conditions, sufficient water and fertile land. The greatest influence on today's ethnic structure of Vojvodina has been made by migrations from the beginning of the 18th century to the present. War events, natural conditions, political and historical circumstances that led to emigration and immigration have resulted in the ethnic structure as it is today.

During the rule of Charles VI, the first immigrations of the Germans were performed from 1712. The settlements were intensified after the Peace of Pozarevac in 1718 and the proclamation of Count Florimund de Mercy as governor of Timisoara's Banat. In addition to the Germans, Italian, French and Spanish populations were also settled. Spaniards and Italians were settled for the purpose of raising industrial agriculture, the development of horticulture, viticulture and fruit growing. They were necessary for the construction of a melioration system in the wetland Banat, but also roads and bridges. By colonization during the time of Charles VI, between ten and twenty thousands of Germans were moved to the Banat area, and the exact number moved to other parts of today's Vojvodina is unknown. The colonization of the Germans continued during the rule of Maria Theresa, as well as during the rule of her son, Joseph II. Not only Germans were moved, but also Hungarians, Slovaks, Czechs, Bulgarians, Ruthenains, Jews, Armenians, Gypsies, Arbanasi. In general, the colonization included members of nations from whom the Vienna Court could have any benefit, political or economic. During the 19th century, the colonization of today's territory of Vojvodina continued. The Germans who were engaged in agriculture and crafts were still resettled. The Hungarians were engaged in agriculture, according to Jankulov (2003) with the cultivation and tobacco planting. Also during the 19th century, the Romanians were mostly settled in Banat. The colonization of Romanians had a commercial goal that was "the development of livestock farming in the wide grasslands of Banat". Bulgarians were colonized, too, for economic reasons -"horticulture development". The Slovaks, as colonists, were the best, because they were "hardworking, persistent and satisfied with a small amount of food". In addition, the Slovaks were compatible with the Hungarians in cultural and political terms. Gypsies that were settled were also useful to the authorities. Even back then, they were "wandering" without livestock and certain occupations. Some of them were engaged in blacksmithing and silversmithing, drilling, playing, and foretelling, and they mostly dealt with stealing and collecting old things.

The colonization of the area of today's Vojvodina during the 18th and 19th centuries was done for economic reasons, in order to increase the arable land, to improve the way the land is cultivated, as well as the specialization of some sectors of agricultural production. The Serbs lived in the area northwards from the Sava and the Danube before the intensive settlement of these areas took place during the 18th and 19th centuries. A large number of Serbs were settled during the Great Migrations of the Serbs in 1690 under the patriarch Arsenije Čarnojević. The Serbs mostly settled in the Military Frontier where they had certain privileges. They were engaged in agriculture, but they also fought for the Austrian and Hungarian authorities.

During the 20th century, intensive ethnic changes in this area continued, including the emigration of the German population, and the further immigration of the Serbian population. A significant influx of the population occurred after the First World War, with immigration of the population from the regions of the newly emerged state, the Kingdom of Serbs, Croats and Slovenes. The settlement was carried out because of arable agricultural land and numerous agricultural households that were left empty after the emigration of the German population from these areas after the breakup of the Austro-Hungarian state. For the same reasons, the settlement of the population continued after the Second World War. However, in the second half of the 20<sup>th</sup> century, rural-urban migration took place, which led to the extinction of villages.

Over the last decades, migration have been mainly directed towards moving from the Vojvodina area, which together with negative natural growth leads to a constant decrease in the number of inhabitants. In addition, Vojvodina still has many ethnic groups, which gives it the epithet "Little Europe".

Traditional occupations of some ethnic groups that characterized them eventually changed. This was influenced by deagrarization, industrialization, as well as the development of technology, and over the last decades due to the intensive development of the IT sector. Today, it is increasingly difficult to associate some activities to specific ethnic groups. This may be one of the last moments when these differences can be observed, while further economic development will even more reduce the differences due to globalization, cultural and ethnic equalization of ethnic groups, not only in Serbia, but also worldwide.

## 3. Subject and methods

This paper analyzes the status and differences among economically active population by ethnic groups in the region of Vojvodina as well as among economically active population by activities. In other words, socio-economic indicators of differences between ethnic groups were analyzed here. The paper uses the data on economically active population that is engaged in occupation by activity and ethnicity and data on population according to ethnicity and economic activity. The paper uses date on the agricultural population from the Censuses 1961, 1971, 1991 and 2002 for the analysis of trends in agricultural population in the area of Vojvodina. The analysis of the agricultural population by ethnic groups used the data of the Statistical Office of the Republic of Serbia, which were obtained after additional processing of 2011 census data. The agricultural population is singled out from the group of economically active individuals who are engaged in occupation. Based on economic activity, individuals are divided into economically active and economically inactive. Economically active individuals are those who persuade occupations and the unemployed. Economically inactive include children under the age of 15, retirees, persons with property income, pupils and students, as well as persons who perform only household tasks in their household. Data for economically active persons are collected for persons aged 15 and over. The maximum age limit is not defined due to the fact that persons can be active even after leaving the so-called labor contingent (15-64 years) (RZS, 2014a; RZS, 2013). The group of economically active population was analyzed by activities, that is, for the purposes of this research, the population engaged in agriculture was analyzed. Activities represent the type of production or activity that is performed in an enterprise, store, institution, cooperative, private store (craft, trade, catering, etc.) in which the person is working. 2011 Census 2011 displays data by activity in accordance with the 2010 Business Classification Regulation. This classification of activities is fully comparable to the international classification of activities NACE Rev. 2, which is divided in the classification system into sectors, areas, branches and groups (RZS, 2014b).

It is necessary to emphasize here that the question of ethnicity is formulated as an openended question with a legal instruction that, according to Article 47 of the Constitution of the Republic of Serbia, citizens are not obliged to declare their ethnicity. Thus, in the 2011 Census, the highest international standard was met, according to which every person was guaranteed the right to free expression of his/her ethnicity (RZS, 2012a).

In this paper, a method of descriptive statistics was used to analyze economically active population by national groups, as well as to analyze economically active population by activity and national groups. The cartographic method was used to display statistical data.

## 4. Research results and discussion

The area of Vojvodina has been an agricultural region, both before the Second World War and over the decades after the mentioned war. According to the Population Census in 1948, more than two thirds of the population in Vojvodina was engaged in agriculture. Until 1953, the percentage of agricultural population declined slightly and amounted to 63.4 %. After the 1950s there was a more intensive reduction in the number of inhabitants engaged in agriculture. This process has been induced by an intense industrialization that has, since the 1960s, had an increasing impact on the emigration from villages and urban-oriented migration. In 1991, in Vojvodina, 13.6 % of the population was engaged in agriculture (Čobanović, Petrović, 2006). According to the latest 2011 Census, only 4.4 % of the economically active population is engaged in agriculture. This led to the extinction of villages. The deagrarization process in the former Yugoslavia is characterized as the fastest deagrarization in the world. From villages to cities, in the former Yugoslavia, in just 50 years, about eight million people have been moved. Such processes in the world lasted for a century and a half (Pejanović, Njegovan, 2009).

**Table 1.** Share of agricultural population in the total population of economically active population in Vojvodina's municipalities (%)

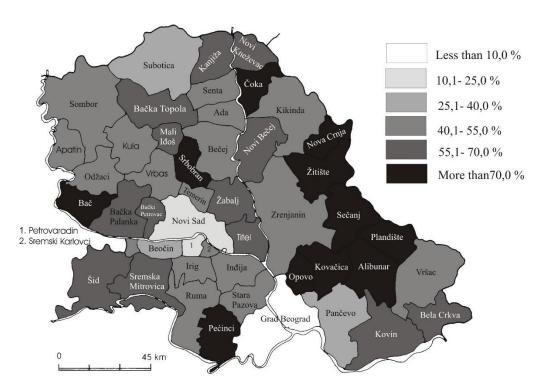
	2011.	2002.	1971.	1961.
Vojvodina	4.4	10.6	39.0	56.1
Ada	6.3	16.3	30.1	52.1
Alibunar	7.6	24.2	68.0	75.4
Apatin	5.4	9.2	31.6	42.1
Bač	10.6	18.4	63.2	73.4
Bačka Palanka	4.3	10.6	39.5	56.0
Bačka Topola	9.0	16.8	24.0	62.2
Bački Petrovac	8.7	18.3	56.5	64.3
Bela Crkva	7.0	19.2	51.2	57.3
Beočin	2.0	6.6	31.4	40.6
Bečej	8.2	15.9	42.7	54.3
Vrbas	2.8	4.4	30.7	42.8
Vršac	3.7	11.3	43.0	51.7
Žabalj	5.3	14.8	57.4	64.5
Žitište	13.7	26.1	73.4	80.0
Zrenjanin	3.6	8.3	29.4	40.9
Inđija	3.8	8.9	36.3	48.6
Irig	1.1	19.6	48.9	53.8
Kanjiža	11.1	22.7	51.1	61.7
Kikinda	3.2	7.6	37.3	54.2
Kovačica	8.2	24.1	63.1	70.6
Kovin	7.7	18.3	59.9	67.8
Kula	5.2	7.1	36.7	54.9
Mali Iđoš	4.8	14.6	48.5	63.1

	2011.	2002.	1971.	1961.
Nova Crnja	7.7	23.1	70.1	79.9
Novi Bečej	8.0	14.1	45.9	58.3
Novi Kneževac	9.7	20.8	57.0	69.4
Novi Sad	0.8	1.9	11.1	17.9
Opovo	10.1	27.7	67.1	74.1
Odžaci	5.2	9.6	40.7	52.3
Pančevo	1.7	5.0	25.9	38.3
Pećinci	7.3	23.4	75.4	83.9
Plandište	8.1	15.4	66.7	78.9
Ruma	4.3	11.7	39.5	57.6
Senta	5.9	16.1	34.6	43.6
Sečanj	8.5	22.8	59.2	70.3
Sombor	1.2	11.7	38.2	46.0
Srbobran	6.2	17.3	55.0	70.5
Sremska Mitrovica	7.3	13.9	41.2	58.7
Sremski Karlovci	1.2	2.5	17.3	50.4
Stara Pazova	2.1	6.9	34.6	49.3
Subotica	3.4	8.1	30.2	39.2
Temerin	2.8	6.9	31.1	49.4
Titel	7.0	16.6	54.4	66.5
Čoka	13.1	22.7	57.6	70.8
Šid	7.0	17.1	54.3	59.1

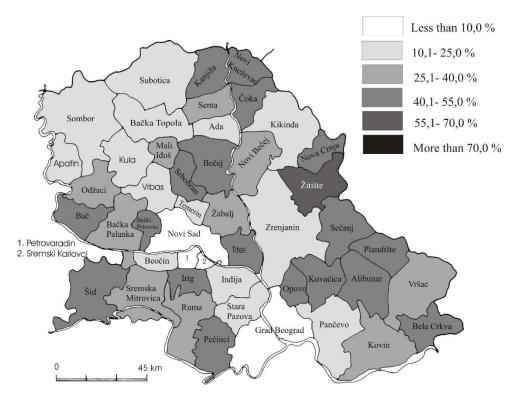
Source: SORS, Agricultural population, Population Census 1961. Book XV, SFRY, Belgrade, 1966; SORS, Agricultural population, Census of Population and Housing 1971. Book XI, SFRY, Belgrade, 1973; SORS, Households, agricultural population and household agricultural holdings, Census of Population, Households and Housing in 1981, Table 195, SFRY, Belgrade; SORS, Agricultural population, Population and Housing Census 2002, Belgrade; SORS, SORS, 2016, Economically active population engaged in occupation by activity and ethnicity, Additional data processing, 2016, Belgrade.

In the middle of the twentieth century (1961), the largest agricultural population was in Banat municipalities, Žitiste (80.0 %), Nova Crnja (79.9 %), Plandište (78.9 %), Alibunar (75.4 %), Opovo (74.1 %) and others. A large percentage of the agricultural population was also found in some Srem municipality, such as the Pećinci municipality, where 83.9% of the agricultural population was recorded. The smallest number of inhabitants who were engaged in agriculture was in large centers such as Novi Sad (17.9 %), Subotica (39.2 %) and Pančevo (38.3 %) (Table 1).

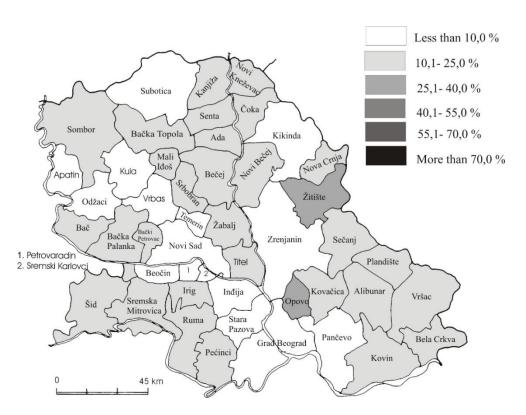
Each year there was a successive decline in the number of agricultural population. At the beginning of the second decade of the 21st century, out of 45 municipalities in the area of Vojvodina, only five of them had more than 10 % of the agricultural population of the total number of economically active inhabitants (Žitište 13.7 %, Čoka 13.1 %, Kanjiža 11.1 %, Bač 10, 6 % and Opovo 10.1 %). The smallest number of the agricultural population lives in the municipality of Novi Sad, only 0.8 %. There is also a small number of inhabitants engaged in agriculture in some other municipalities, such as Sremski Karlovci, Sombor, Pančevo and Irig. A successive decline in the share of agricultural population in the municipalities of Vojvodina is showed by Table 1 and Figures 1, 2, 3 and 4.



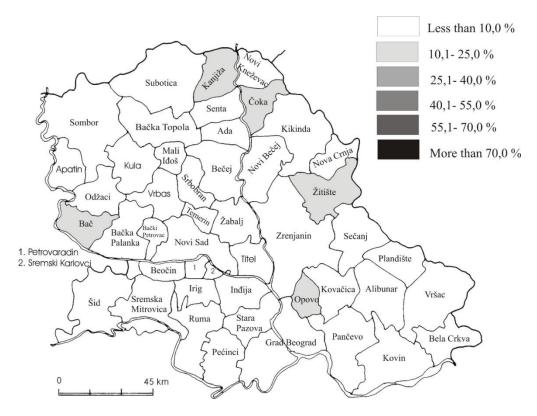
**Fig. 1.** Share of agricultural population in municipalities of Vojvodina according to the 1961 Census data



**Fig. 2.** The share of agricultural population in the municipalities of Vojvodina according to the 1991 Census data



**Fig. 3.** The share of agricultural population in the municipalities of Vojvodina according to the 2002 Census data



**Fig. 4.** Share of agricultural population in municipalities of Vojvodina according to the 2011 Census data

The tendency of permanent migration of the population to the larger urban centers will continue to have a negative impact on the agriculture of Vojvodina. Without significant

investments in the development of agriculture and subsidies by the government, it is difficult to expect that there will be more evident growth and development of agriculture. Despite the small share of the agricultural population, it is interesting to analyze which ethnic groups are the most active in agriculture in Vojvodina to the present. As mentioned, some of the ethnic groups have been moved to the area of today's Vojvodina in order to improve agricultural production. These are Hungarians, Romanians, Bulgarians, Slovaks, Italians, and Spanish. Of the mentioned ethnic groups, in Vojvodina, Hungarians and Slovaks are the most numerous. However, members of other ethnic groups, who settled in the area of today's Vojvodina, immigrated because of the small number of inhabitants, at that time, in this area and uncultivated areas. The process of emigration from villages and small town centers, which lasts for several decades, and concentration in larger cities lead to a continual reduction in the number of agricultural population per unit of agricultural land.

**Table 2.** Share (%) of agricultural inhabitants of certain ethnic groups in the total number of economically active population, according to the 2011 Census data

		Population engaged in agriculture		
Ethnia anarra	Total		The share in the	
Ethnic groups	population	Number	total number of members of the	
			ethnic group (%)	
Serbs	417,602	48,093	11.5	
Albanians	822	21	2.6	
Bosniaks	245	21	8.6	
Bulgarians	470	62	13.2	
Bunjevci	5,169	882	17.1	
Vlachs	51	18	35.3	
Goranci	276	1	0.4	
Yugoslavs	4,561	351	7.7	
Hungarians	76,903	17,943	23.3	
Macedonians	3,058	242	7.9	
Muslims	825	104	12.6	
Germans	829	108	13.0	
Roma	5,022	1,048	20.9	
Romanians	6,851	2,895	42.3	
Russians	339	20	5.9	
Ruthenains	4,635	1,047	22.6	
Slovaks	16,154	4,023	24.9	
Slovenians	508	32	6.3	
Ukrainians	1278	139	10.9	
Croats	13,873	2,497	18.0	
Montenegrins	7167	527	7.4	
Czechs	403	87	21.6	
Others	1,684	96	5.7	
Undeclared	24,668	2,448	9.9	
Regional affiliation	10,888	947	8.7	
Unknown	3,053	321	10.5	

Source: SORS, Economically active population engaged in occupation by activity and ethnicity, Additional data processing, 2016, Belgrade.

Romanians and Vlachs have the largest share of their population in Vojvodina who are still engaged in agriculture. In addition, more than one-fifth of the Czechs, Slovaks, Ruthenains and Hungarians are also engaged in agriculture. The mentioned ethnic groups have a high percentage of the population who live in the place of birth since birth. Poor mobility, that is, small share of migrants, in these ethnic groups is the main reason of higher percentage of the agricultural population compared to other ethnic groups with a higher proportion of residents who migrated from the place of birth (Bubalo-Živković, 2017). According to the Statistical Office of the Republic of Serbia, the Roma are also highly engaged in agriculture (20.9 %) (Table 2), however, research by municipalities found that Roma mostly collect secondary raw materials (Radovanović, Knežević, 2014) and materials for recycling. They are engaged in agriculture more as seasonal workers. Serbs, as the majority population in Serbia and Vojvodina, are engaged in agriculture in a small percentage. Out of hundred economically active inhabitants of Serbian nationality, 11 of them are engaged in agriculture, which is a bit for the agricultural region, such as Vojvodina.

Goranci (0.4 %) and Albanians (2.6 %) are engaged in agriculture in the lowest percentage. Members of these ethnic groups are mostly engaged in processing industry, that is, craftsmanship, baking and confectionery. There is a small share of Russians, Slovenians, Macedonians, Yugoslavs, Montenegrins and Bosniaks who are engaged in agriculture. The Russians are the most educated ethnic group that is mostly involved in education. Macedonians are also engaged in the processing industry, while Montenegrins mostly deal with the state administration. Members of other ethnic groups also have a small share of members engaged in agriculture.

Ethnic groups, such as Romanians, Slovaks, Hungarians who have been settled in this area because of the promotion of agricultural production a few centuries ago, are still the most engaged in agriculture today. Thus, this activity is traditionally dominant in ethnic groups in which it was previously.

## 5. Conclusion

Plain space, such as Vojvodina, has been confronted with demographic problems, depopulation and emptying of rural settlements for decades. As a result, there is a decreasing number of people who are engaged in agriculture, and especially a decreasing number of young people whose dominant activity is agriculture. Nevertheless, more than one-third of Romanians and Vlachs are engaged in agriculture. And more than one-fifth of Rusyn, Slovaks, Hungarians and Czechs are also engaged in agriculture. Of course, these are significantly lower percentages of the agricultural population of these ethnic groups than a few decades ago, but these are significantly higher than in some other ethnic groups. The problem of agriculture in the area of Vojvodina is not only related to the depopulation of the agricultural population. The problems of agriculture, not only in the area of Vojvodina, but also throughout Serbia, are much deeper and require a number of measures that would lead to the retention of the population in the countryside, as well as the profitability of the population's engagement in this activity. Government support should go through subsidies, but also through maintenance of agricultural production by preserving the traditional characteristics of certain ethnic groups. Supporting agricultural production, such as hop production that is characteristic of the Slovak population, would in any case give even greater effects in the recovery of agriculture in Vojvodina.

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