

Demographic Development of Settlements in the South Banat County / District

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Abstract

The demographic development of Vojvodina settlements takes place in accordance with the laws of the urbanization process, which is manifested in two phases: the first - after the Second World War until the beginning of the 80's of the 20th century, which is characterized by a polycentric polarization, and the second - monocentric polarization, which is still present. Since the settlements leave a fundamental mark on the cultural landscape and are the main carriers of the functional organization and focal transformation of geospace, the paper analyzes spatial-demographic and functional determinants of development of the settlement network of the South Banat County (district) on the basis of quantitative and qualitative indicators.

The settlement network includes 94 settlements distributed on the territory of 8 municipalities: Pančevo¹, Vršac, Kovin, Alibunar, Bela Crkva, Kovačica, Opovo and Plandište. The time period of the analysis and statistical survey of demographic components in the settlement network is observed through three inter-census periods, as follows: 1981-1991, 1991-2002 and 2002-2011. The analysis of demographic components has indicated that two poles of population concentration dominate within the network of settlements in this district: Pančevo (a sub-centre of the Belgrade - Novi Sad metropolitan area) and Vršac in comparison to other urban centres and the municipality centres.

Keywords: *South Banat county, settlement network, natural and mechanic movement of population, spatial-demographic transformation of settlements*

Rezumat. Dezvoltarea demografică a așezărilor din districtul Banatul de Sud

Dezvoltarea demografică a așezărilor din Voievodina se face în concordanță cu legile procesului de urbanizare, ce s-a manifestat în două etape: prima, începută după cel de al doilea război mondial, a ținut până la începutul anilor 80 din secolul al XX-lea, și s-a caracterizat printr-o polarizare policentrică; cea de a doua etapă, care continuă și în prezent, este cea a polarizării monocentrice. Întrucât așezările lasă o amprentă fundamentală asupra peisajului cultural, fiind totodată principalul determinant al organizării funcționale și transformărilor spațiului geografic, lucrarea de față analizează dezvoltarea spațial-demografică și funcțională a rețelei de așezări din districtul Banatul de Sud, pe baza unor indicatori cantitativi și calitativi.

Rețeaua de așezări cuprinde 94 de localități grupate în 8 municipalități: Pančevo², Vršac, Kovin, Alibunar, Bela Crkva, Kovačica, Opovo and Plandište. Datele statistice pentru componentele demografice ale rețelei de așezări sunt analizate pentru trei perioade inter-censuare, respectiv 1981-1991, 1991-2002 și 2002-2011. Analiza componentelor demografice a indicat existența a doi poli de concentrare a populației, ce domină rețeaua de așezări a districtului: Pančevo (un sub-centru al zonei metropolitane Belgrad-Novii Sad) și Vršac.

Cuvinte-cheie: *Banatul de Sud, rețeaua de așezări, mișcarea naturală și migratorie a populației, transformări spațio-demografice ale așezărilor*

Introduction

Socio-economic processes, based on the dynamic changes in the spatial and socio-economic mobility of population from rural settlements to urban or to municipal and regional centres, as well as from less developed to more developed areas of the country, from primary to secondary and tertiary or quaternary activities influenced the spatial and demographic transformation of the settlements of South Banat County / District. The main driver of these processes was urbanization whose stages followed each other successively from the Second World War to the beginning of the 80's of the 20th century, and from the 80's until today. In the first phase of urbanization, with certain modifications and customization in accordance with the historical and geographic conditions, when rapid industrialization started too, the settlements of

the South Banat County / District were characterized by a concentration of functions. Since then, the industry, along with its side effects, influenced this rapid increase in municipal and urban population. The number of inhabitants of the county / district increased from 279,092 to 340,189 people from 1948 to 1981. The Town of Pančevo had the main contribution to the demographic growth (an increase from 70,943 to 123,791 inhabitants). The rural population declined from 178,672 to 167,710 residents, while the share of urban population increased from 36% to 50.7%. The second phase of urban development of the South Banat County / District is characterized by continuous depopulation induced by a mechanical movement of the population and the ongoing reduction of natural increase, which had a negative character in all communities at the beginning of the 21st century.

¹ Under the Law on Territorial Organization of the Republic of Serbia from 2007 Pančevo municipality was given the status of a town, and in 2016, Vršac was given the status of a town

² Conform Legii Organizării Spațiului Republicii Serbia, din anul 2007 Pancevo are statut de oraș, iar Vrsac din anul 2016.

Consequently, all the municipalities in general were affected by the process of depopulation as well as other settlements in the observed geospace except the settlement of Ritiševo in Vršac municipality that was the only one to record an increase in the number of inhabitants from 2002 to 2011.

The issue of socio-economic and spatial mobility of the population of both Serbia and Vojvodina is quite well studied in the geographic and demographic literature. (Ilić, 1970; Đurić, 1971; Ginić, 1978; Ćurčić, 1979, 1985, 1987; Spasovski, 1983; Spasovski, Janić, 1990/91; Đurđev, 1995; Tošić, 1999; Krunic, 2012. etc.), so that the focus of this paper will be on determining the changes in the development and distribution of the population of the South Banat County / District, which took place in the period 1981-2011.

Research Methodology

In both former and future, spatial-demographic development, all demographic phenomena and processes are interpreted using synthesizing indicators with the aim of identifying qualitative and quantitative characteristics of the population. The analysis of natural and mechanical movement of the population is based on the available census data and vital statistics of the Statistical Office in Belgrade and the available theoretical literature. However, for a more detailed analysis of dynamic changes of the population inter-census changes are not enough. A more detailed picture of a certain territory or any settlement or time period is obtained on the basis of analysis of more complex indicators. The types of population movements present one of the more complex indicators, which are determined by linking the changes in the overall population trends with changes in its migration and natural components.

Applying the well-known W. Clark model of types of population movement, which was introduced into Yugoslav literature in the 70's of the 20th century, and which was repeatedly applied in the scientific and professional practice (Friganović, 1972/73; Tošić, 1999; Nejašmić, 2005; Vojković, 2007; Tošić, Krunic, Milijić, 2009; Nevenić, 2013), in the geospace of the South Banat County / District, eight types of population movements have been identified. These are the four emigration types: emigration (E1), depopulation (E2), extreme depopulation (E3), total depopulation (extinction E4), and four immigration types: expansion through immigration (I1), regeneration through immigration (I2), weak regeneration through immigration (I3) and extremely weak regeneration through immigration (I4).

Changes in the natural movement of population

An important determinant of demographic development of each territory and its settlements is

the natural movement of the population. From the analysis of the indicators of the components of natural movement of population within the settlements in the South Banat County / District it can be concluded clearly that in the period from 1981 to 1991 the municipalities of Bela Crkva (0.21 ‰), Kovin (0.93 ‰), Opovo (0.27 ‰) and the Town of Pančevo (3.87 ‰) had a positive rate of natural increase overall, while in the next two inter-census periods (1991-2002 and 2002-2011) in all the analyzed municipalities it had a negative value. This is the result of a successive reduction in birth rate and an increase in mortality rate, both in rural and urban settlements, in total and individually and in municipal centres as well.

In the inter-census period of 1981-1991, in all settlements of the South Banat County / District 42,603 children were born, out of which 22,301 (52.3%) were born in urban areas. The highest number of children was registered in the heart of the district - the Town of Pančevo (16,940), and the lowest in Opovo (1490). Consequently, the average birth rate is the highest in the Town of Pančevo (13.60 ‰). At the same time, on the territory of the South Banat County / District 39,924 individuals died overall, of which 17,900 in urban settlements. The highest mortality rate was 14.88 ‰ in the municipality of Plandište, and the lowest in the Town of Pančevo (9.73 ‰). A positive average rate of natural increase of population was recorded in the municipalities of Bela Crkva, Kovin, Opovo and Pančevo. When individual settlements are observed, it is concluded that 28 of them have a positive and 66 a negative natural increase. The highest positive rate of natural increase is recorded in the settlements on the territory of the Town of Pančevo - Jabuka (7.16 ‰) and Kačarevo (6.09 ‰), and the lowest in the village Stari Lec (-34.99 ‰) in the municipality of Plandište.

Between the censuses of 1991 and 2002, the process of depopulation of a large number of settlements continued. In fact, compared to the previous inter-census period, in all 94 settlements in the eight municipalities of the South Banat County / District, 36,680 children were born (5,923 less in relation to the previously analyzed period), while in urban settlements, fewer children were born - 19,943. Meanwhile, 50,325 people died, of which 24,336 in urban settlements. There was a negative average population growth rate for all the municipalities in the South Banat County / District. Thus, it can be concluded that all settlements in the South Banat County / District recorded an absence of population growth during this inter-census period. Individual observation throughout the studied territory showed that only two villages on the territory of the municipality of Bela Crkva: Kusić (1.89‰), and the Crvena Crkva (2.60‰) exhibited

positive values of natural increase. The settlement of Kusić is a borderline village next to Romania, while Crvena Crkva is a suburb area, the parts of which merged with the municipal centre in the morphological sense.

In the last inter-census period 2002-2011, this process was even more intense. In all the settlements of the studied territory 26,758 children were born, while in urban settlements there were born 15,721. During the same period, 41,148 people died, out of which 21,097 inhabitants in the urban areas. The numbers of births and deaths clearly indicate that the population growth in all communities of the observed territory has a negative value. Even more alarming is the emergence of settlements exhibiting a phenomenon of denatality. In certain years of this period, not a single child was born in some settlements. This is the case of Laudonovac settlement in the municipality of Plandište where only one child was born, and Vršački Ritovi on the territory of the municipality of Vršac in which three children were born.

The consistency of these processes caused the gradual ageing of the population, both in Serbia and in South Banat County / District. The average age of the population in the county / district in 2011 was 41.9 years, which shows that the population is somewhat older than in Serbia, where the average population age in 2010 was 41.4 (Lukić, 2013). The municipality of Alibunar had the oldest population, whose average resident was 44.7 years old. The analysis of the average age of settlements population clearly indicates that the oldest population lives in the settlement of Vršački Ritovi on the territory of the municipality of Vršac (the average age is 53.1 years), and Banatski Sokolac in the municipality of Plandište (51.1 years). At the same time, the population in the peri-urban belts has, so to say, a more favourable age structure compared to the periphery of the settlements. Regarding the average age of the population in these settlements, the question arises whether the future spatial and functional development in these settlements should be adjusted to the current population situation or directed towards demographic revitalization of rural settlements and areas?

The migration balance of population

Second, but no less important determinant of demographic development of each territory and the settlements situated on it is the spatial movement of people or the migration balance. Taking into account that spatial movement of people is a dynamic process that does not have a constant intensity, it is understandable that during the analyzed period, changes in both absolute values and in average rates of its components are observed - emigration and immigration, i.e. the migration balance.

Analysing the relationship between the immigration and the emigration components of population dynamics in relation to the types of settlements, there are less evident and more evident differences in annual rates and the absolute values of their migration balances between the municipal centre and all other settlements and between the villages individually. During the 1981-1991 inter-census period, there was registered a negative rate of migration balance in all municipalities in the South Banat County / District. At the same time, in most other settlements within the studied territory, the ratio of immigrant and emigrant residents was negative. A positive migration balance was recorded in only 8 villages: Plandište (2.85 ‰), and Stari Lec (8.85 ‰) in the municipality of Plandište, Vlakovac (2.09 ‰) and Izbište (0.93 ‰) in the municipality of Vršac, Bavanište (2.04 ‰) in Kovin, Baranda (0.78 ‰) in the municipality of Opovo, Kovačica (0.58 ‰), Omoljica (0.23 ‰) in the Town of Pančevo, these settlements exhibited immigration, while more than 86 settlements displayed emigration. Of the emigration villages, the lowest rates of migration balance were registered in the following settlements: Šumarak (-72.20 ‰) in the municipality of Kovin, Laudonovac (-43.75 ‰) in the municipality of Plandište, Vršački Ritovi (-39.47 ‰) in the municipality of Vršac and Češko Selo (-30.56 ‰) in the municipality of Bela Crkva.

During the next inter-census, 1991-2002, emigration slowed down. A positive rate of migration balance was recorded in all municipalities except Bela Crkva (-2.77 ‰) and Alibunar (-0.35 ‰). It is interesting that during this inter-census period the number of rural settlements with a positive migration balance increased. The analysis of the rate of migration balance at the settlement level clearly indicates that 52 settlements have a positive rate of migration balance, while 42 have a negative rate of migration balance. The highest spatial distribution of immigration settlements was recorded in the municipalities of Opovo (100%), Plandište (86%) and Pančevo (80%), and emigration Bela Crkva (100%). Of all immigration settlements, the highest values of the average rates of migration balance were recorded in Stari Lec (40.68 ‰) and Banatski Sokolac (11.95 ‰) in the municipality of Plandište, while the emigration villages with the lowest values were Vršački Ritovi (-44.90 ‰) in the municipality of Vršac and Laudonovac (-29.48 ‰) in the municipality of Plandište.

By monitoring the impact of migration balance in the overall movement of the population of the municipality as a whole, municipal centres and other settlements overall and individually in the period from 1991 to 2011, it is evident that it was constantly declining and weakening. Consequently, the continuous decrease in migration balance, with the exception of the municipality

of Vršac (0.23 ‰) continued in the period from 2002 to 2011. sixteen settlements registered positive values of the average annual rates, while 78 settlements had a negative rate. Their maximum values were in Vatin (16.85 ‰), Vlajkovac (6.69 ‰), Kuštilj (5.15 ‰) and Veliko Središte (4.60 ‰) in the municipality of Vršac, and the lowest - the negative ones in Vršački Ritovi (-86.81 ‰) and Kaluđerovo (-31.47 ‰) in the municipality of Bela Crkva. Between the last two censuses (2002-2011) it was only the municipality of Vršac and its nine settlements that had the attribute of an immigration centre.

Types of population movements

By applying W. Clark's model of types of population movement in the period from 1981 to 2011 on the territory of the South Banat County /

District, conclusions on the trends in the distribution of population as well as the future directions of spatial-demographic development can be obtained. Application of this model in the settlements of the South Banat County / District led to the identification of eight types of population movements, four exodus types and four immigration types. From the analysis of the indicators on the roles of natural and migration components in the overall movement and distribution of the population of some settlements, we can conclude that the number of settlements whose population is evolving and maintaining itself through immigration increased from 8 to 52 during the 1981-2002 period. It is also evident that the number of emigration settlements decreased from 86 to 42 during the same period (Table 1).

Table 1: Changes in the number of settlements of South Banat County / District by type of population movement in the period from 1981 to 2011

Types of movement	Trend	1981-1991	1991-2002	2002-2011
I1	Expansion through immigration	4	2	-
I2	Regeneration through immigration	1	5	1
I3	Weak regeneration through immigration	-	5	-
I4	Extremely weak regeneration through immigration	3	40	15
Overall immigration type		8	52	16
E1	Emigration	5	-	-
E2	Depopulation	7	1	-
E3	Extreme depopulation	13	1	-
E4	Extinction	61	40	78
Overall emigration type		86	42	78

During the period from 1981 to 1991, most settlements belonged to the type of extinction (E4), and from 1991 to 2002 most settlements belonged to the type of extremely weak regeneration through immigration (I4) and total depopulation (E4). If spatial distribution of immigrant settlements in the South Banat County / District is observed, their concentration is noted mostly in the settlements on the territories of the following municipalities: Opovo, Pančevo and Plandište. During the next inter-census period, from 2002-2011, the number of immigrant settlements decreased, while the domination of settlements that have the character of emigration emerged, i.e. those that are affected by the process of extinction (E4) or total depopulation (Fig. 1).

The process of total depopulation includes all settlements on the territory of the municipalities of Kovačica and Kovin. The only settlement in the municipality of Vršac - Ritiševo exhibits a trend of regeneration through immigration (I2), and the remaining 15 settlements that belong to the type of extremely weak regeneration through immigration are distributed on the territories of the following municipalities: Bela Crkva – the settlement of Banatska Subotica, Vršac – Vatin, Veliko Središte,

Vlajkovac, Vršac, Jablanka, Kuštilj, Mesić and Pavliš, Pančevo – Ivanovo, Omoljica and Pančevo, Plandište – Barice, Alibunar – Nikolinice and Opovo – Sefkerin.

The fact that 55.9% of the total population of this macro unit live in the emigration settlements indicates a significant reduction in demographic potential. In all municipalities in the South Banat County / District, and presumably in all emigration municipalities in Serbia, indigenous population dominates. According to the 2011 census in the South Banat County / District 58.03% of inhabitants lived in the settlements in which they had been born, followed by 15.99% who had moved from settlements of other districts, while 9.52% had moved from the settlements of the former republics of the Socialist Federal Republic of Yugoslavia. The highest number of indigenous population is registered in the municipality of Kovačica (74.3%), and the lowest in the Town of Pančevo (52.9%) – the industrial centre of the county / district, which has been facing, like most industrial towns that were unprepared for the rapid transformations, social and demographic problems since the 90s of the 20th century (Miletić, Lukić, Miljanović, 2011).

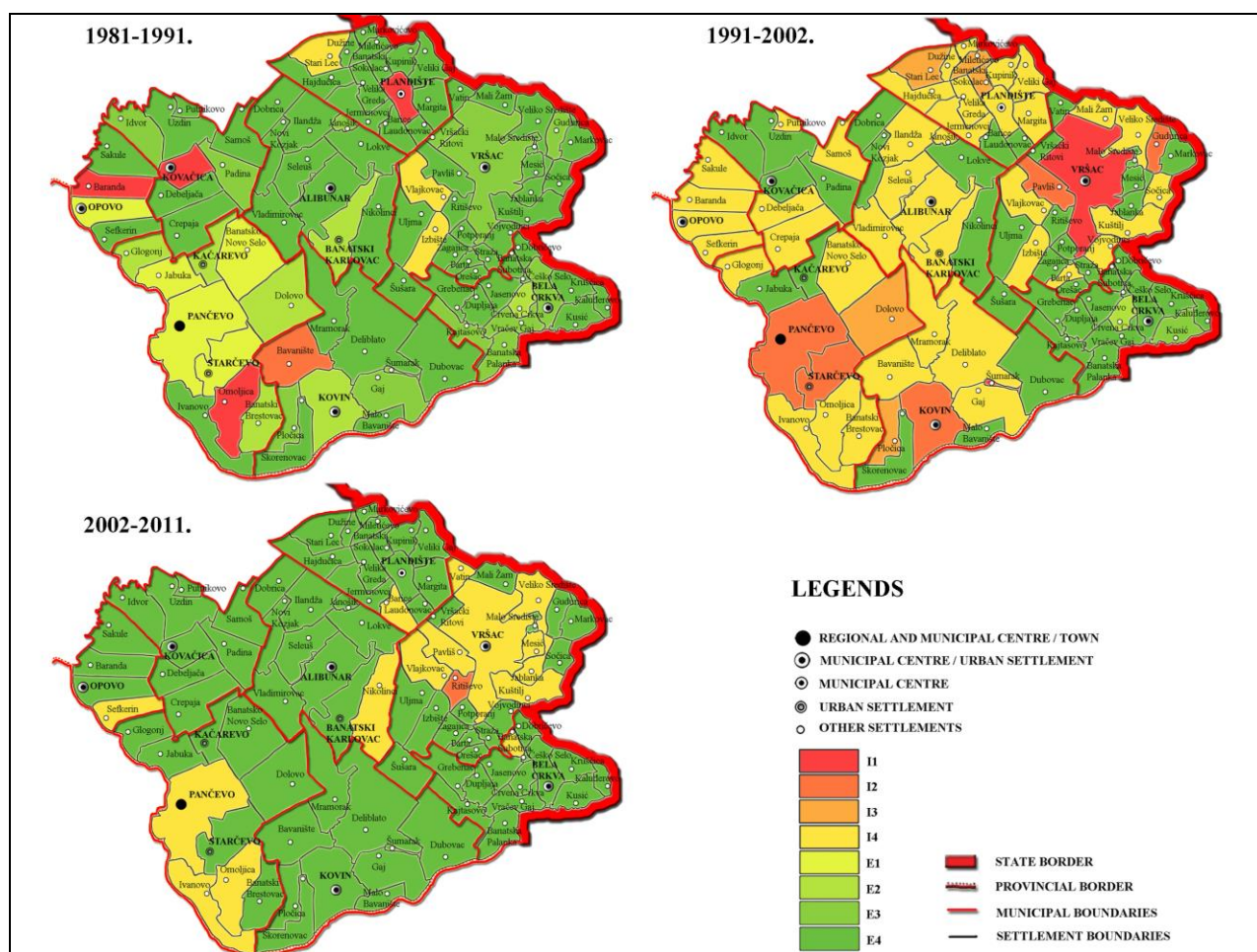


Fig. 1: Types of population movement in the settlements of the South Banat County / District for the period 1981–2011

The average annual population growth in the period 1981-1991 was recorded only in the Town of Pančevo, totalling 147 residents at a rate of 1.18‰ (birth rate 3.87‰, and the rate of migration balance -2.69‰). Similarly, from 1991 to 2002, the overall average annual population growth was recorded in the centre of the district - Pančevo (420.7 residents at a rate of 3.37‰), which was the result of a negative rate of natural increase (-2.15‰) and a positive rate of migration balance (5.52‰). This relationship between the

components of population movement indicates that the main bearer of the population growth of the municipality is immigration only, albeit weak. From 2002 to 2011, a decrease in the population of 20,207 or 2,245 people annually in all municipalities in the South Banat County/ District was recorded. Since 1981, negative demographic developmental tendencies especially in the rural settlement network of South Banat County/ District have had implications, among other things, on the size of the population of settlements.

Table 2: Population size of rural settlements in the South Banat County / District in 1981, 1991, 2002 and 2011

Population category	Number of settlements			
	1981	1991	2002	2011
Hamlets (thorp villages) (up to 100 inhabitants)	2	2	3	5
Small villages (from 101-500)	16	19	21	25
Medium villages (from 501-1000)	12	13	13	15
Big villages (from 1001-2000)	26	29	26	20
The biggest villages (more than 2001 inhabitants)	27	20	20	18

From 1981 to 2011, the basic characteristics of the development of rural settlement network in the South Banat County/ District were the continuous demographic depopulation and fragmentation of the majority of settlements i.e. decrease of the number

of settlements of the highest population category and the increase of the number of thorp, small and medium villages. Comparing the current state of the rural settlements according to their population size with the situation in 1981, 1991 and 2002, a

succession is observed in demographic defragmentation of the settlements. According to their population size in 1981, the highest number of settlements belonged to the categories of big and the biggest villages (63.8%), in 1991 (59,0%) and in 2001 (55,4% of the total number of rural settlements). The intensity of demographic depopulation and defragmentation can be best illustrated by the fact that in 2011 the highest number of settlements was in the population category of small settlements. The intensity of the depopulation process is best seen in the fact that in 2011 as many as 83% of the total number of settlements were dying out.

Conclusion

The intensity of immigration-emigration relations in the South Banat County / District was influenced by the processes of industrialization and urbanization, which led to the establishment of poles of population distribution: concentration and depopulation. Therefore, the general trend of immigration settlements in Serbia, both municipal and urban centers, and other (rural) settlements, can be observed in this macro unit as well.

Mutual relations of "demographic forces" of the municipal centres in the South Banat County / District, according to the analyses presented clearly indicate the dominance of two major urban settlements - Pančevo and Vršac, i.e. the two poles of population concentration, which have different types of population movements. Changes in the natural and spatial movement of the population in the geospace of the South Banat County / District, as well as changes in mutual relations of these two components in the period from 1981 to 2011, led to emigration of a large number of young working-age population from rural areas on one hand, and the concentration of this contingent of the population in urban areas and municipal centres on the other. At the beginning of the analysed period, depopulation was evident as well as a decline or delay in population growth that was caused by a noticeable emigration of population, and during the next period depopulation of these settlements continued due to a negative natural growth. Today, in the geospace of the South Banat County / District the emigration settlements of the type of population extinction (E4) exhibit a dominant share (83%). Such negative demographic processes will continue in the future if further planning of settlement development does not slow them down or possibly stop them altogether.

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