

DEMOGRAPHIC FEATURES AND FUNCTIONAL CLASSIFICATION OF SETTLEMENTS OF SREM

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ABSTRACT: *In the region of Srem, the 778.828 inhabitants lived in about 132 villages (in 2011. year). Republic Institute for Statistics of Serbia recognizes the 128 settlements, which classifies the city (18 of them) and other settlements. In this work, they are classified according to the size in seven classes, and on the basis of the systematization of M. Grcic, which is based on the activities of the local population, are also classified into seven types. The rural villages of Srem by model Dj. Simonovic, which is based on the presence and capacity of the functions that generate, share in the six species. The population of the same is also analyzed according development, gender and age structure, the rate of natural population growth and some activities.*

Key words: *structure of the population, position of the population, actions of the population, settlements of Srem.*

INTRODUCTION

The territory of Srem is a unique natural surroundings with clear natural boundaries (except his west boundary). However, in the statistical analysis of the Census of Population, Households and Dwellings, carried by the Statistical Office of Serbia in 2002nd and 2011th years, this territory is divided into Srem District and South-Bačka District and the city of Belgrade. Srem District make next municipality: Indjija, Irig Pećinci, Ruma, Sremska Mitrovica, Stara Pazova and Sid. These municipalities cover an area of 3.363 km² (79% of the territory of Srem) and ther live 300.037 people (about 38 % of the population of Srem). According to census from 2002 year in them lived for 2% more people (335.241 people). South-Bačka District includes following municipalities of Srem: Beočin, Sremski Karlovci, Petrovaradin like part of city Novi Sad (this municipality includes the settlements Petrovaradin, Sremska Kamenica , Ledinci, Bukovac and Stari Ledinci) and settlements Nestin and Vizic (administratively belong to the municipality of Bačka Palanka). South-Backa District covers about 9 % of Srem regions (334 km²),

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and it has a population from 58.383 people (about 7 % of the population of Srem), while the city of Belgrade occupies 11 % of the territory and there is a concentrated 54 % of the population of Srem (420.408 inhabitants, 2% more than in 2002 year).

DISTRIBUTION AND POPULATION STRUCTURE

According to the records of the Statistical Office of the Republic of Serbia from 2011th on the territory of Srem exist 778.828 inhabitants, living in 329.991 dwellings (in 2002nd year was 817.859 inhabitants and 270.738 houses). They are arranged in 132 settlements. In the town of Novi Beograd, Zemun, Batajnica, Surcin, Dobanovci, Ruma, Indjija, Stara Pazova, Irig, Sid, Sremska Mitrovica, Sremski Karlovci, Petrovaradin, Sremska Kamenica and Beocin, live 554.468 people, or 75 % of the population of Srem. At the height of the population of these villages affected by the fact that in this figure include the urban settlement of Belgrade. Without them in towns of Srem live 165.269 or 46 % of population. Compared to the previous decade, the city's population has increased by 4 % (584.949 people).

Population trends at the municipal level to the census 2002nd in all year were positive, while at the level of settlements depopulation is present in northeastern, central (on the southern outskirts of Fruska gora) and southern (north of Obedska bara) parts of Srem. Population decline for many decades was registered in the following settlements: Grabovo, Susek, Krcedin, Maradik, Slankamenacki Vinogradi, Dobrodol, Jazak, Krusedol, Prnjavor, Mala Remeta, Neradin, Sremski Mihaljevci, Budjanovci, Kuzmin, Stara Bingula, Calma, Sasinci, Batrovci, Erdevik, Ilinci, Jamena, Ljuba, Molovin, Sot, Nestin and Vizić. Besides the high level of immigration, which was expressed in the nineties of the last century, the settlements that have been declining in population only in that decade are: Lug, Beska, Velika Remeta, Sibac and Subotiste.

Between 2002nd and 2011th year, according to preliminary results of the Census of Population, Households and Dwellings in the 2011th year in all the municipalities of Srem, except in Petrovaradin, Zemun and Surcin, it was registered a negative balance of the population. Total decrease in population is about 39.000 inhabitants.

In the protection zone of National Park "Fruska Gora" exist about 15 % of the population of Srem (119.264 inhabitants). They live in 57 settlements (Antonic, et al, 2004, p. 1) and 18 of them are small (dwarf). In the protection zone of special natural reserve "Obedska bara", in 5 settlements live less than 1 % of the population of Srem (6.753 inhabitants). Strictly nature reserves in southwestern of Srem do not have a protective area around them and there live around 6.258 people (2002nd year – 7,828 inhabitants).

According to a detailed projection of population trends on the landscapes of Fruska gora, presented in 2002nd year by B. Djurdjev, reducing the population until 2022 year would be about 5 % (Djurdjev, 2002). The existence of settlements in the area of Fruska gora whose population size does not exceed 1000 people would bring into question, when it is probable that the prosperity achieved those settlements, which are located near city Novi Sad (Djurdjev, 2002). Looking beyond the current trend in the physical and natural population can be expected to continue the trend of declining population of Srem and the beginning of the third decade of the twenty-first century is also 5 %.

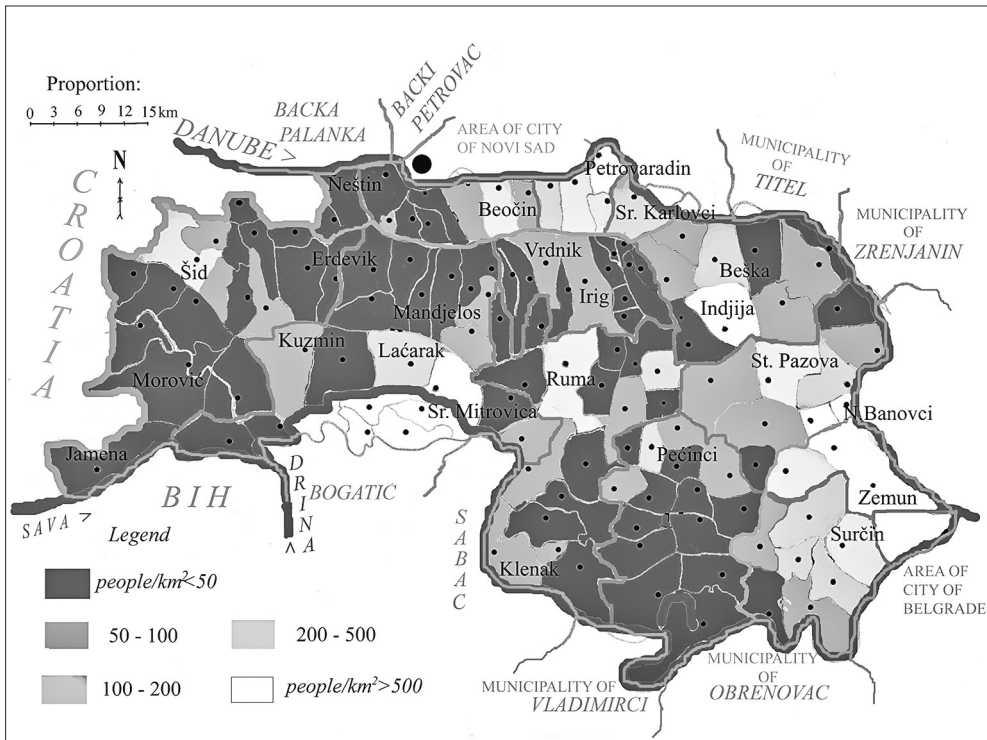


Figure 1. The map of medium density in the territory of Srem (year 2011)

The majority of the Srems population lives in its eastern part, on the line Belgrade - Novi Sad. Between that, two cities there are municipalities Sremski Karlovci, Indjija and Stara Pazova. Parts of the cities and municipalities set up about 31 % of the territory of Srem (1570 km²) and 68 % of its population (2002nd – 72 %). In this area is located 42 settlements (32 %). Among them, the largest is the Novi Belgrade (with 27 % of the population of Srem), afterward followed Zemun (with about 12 % of the population), Batajnica (with about 5 % of the population), Indjija (around 3 % of the population), Stara and Nova Pazova (with about 2 % of the population). Belgrade (over Novi Belgrade and Zemun) and Novi Sad (over Petrovaradin, Sremski Karlovci and Sremska Kamenica) are centers of urbanization and industrialization of Serbia, and these processes are spread over the territory of Srem achieving the greatest impact in the eastern part (Bubalo-Zivkovic, 2005). The result of this process bring that in this area exist only one small (dwarf) settlement (with population is less than 500 inhabitants) while twenty-one are located on the rest of Srem. He is located in the eastern part of Fruška gora (Slankamenački Vinogradi). The rest of this type of settlement is mostly located in the southern and southwestern slope of mountain Fruška gora.

The influence of Belgrade and Novi Sad, in the territory of Srem is reflecting in the arrangement of its density. The biggest is in the southeast part (about 2.040 inhabitants/km²), and looking towards the north, towards of community of Indjija, it drops to about 123 inhabitants/km² and in order to re-grow the amount of about 314 inhabitants/km²

what is in the vicinity of Novi Sad. To the west, density decreases rapidly so that in the community of Pecinci is 40 inhabitants/km². Further increases slightly to about 92 inhabitants/km² what is in the vicinity of Ruma and Sremska Mitrovica. In the west, the population density of Srem again fall below 50 inhabitants/km². Differentiation of population density shows that the secondary urban centers of Srem territory are Ruma and Sremska Mitrovica.

The number of households and dwellings, in the period 1971-2002, continuously augmented. Increasing the number of households due to immigration, and their fragmentation causes a permanent deficit dwelling area (apartments). Over the last four decades has reduced the number of members of households with approximately 3,4 to 2,8 persons. However, during the last decade, the number of households has declined (from 275.764 households, were enumerated 2002, to the number of 274.543 households registered under the preliminary results of the census of population 2011.), while the number of dwellings continued to increase, so today that number of households exceeds 55.368.

As at the time of writing of this paper were not published census data population from 2011 according to the structures of the population, their consideration will be base on the census of population from 2002 year. Observed by sex structure of the territory of Srem prevalent female population in absolute terms than 30.040 people (2 %). Per municipalities women are the majority in every municipality except Pecinci where men have a slight advantage of 0.16 %. Generally, the male population is prevalent in individual rural settlements (such as Bikic Do, Bingula, Kukujevc, Privina Glava, Suljam, Calma, Stara Bingula, Lezimir, Grgurevci, Bosut, Mali Radinci, Vizic, Zarkovac, Donji Petrovci, Dobrinci, Grabovci, Nova Pazova and others). Women are the majority in all urban areas. Most of them are in New Belgrade (ahead by 3 %) and in Zemun (2%). In contrast to New Belgrade and Zemun, in which there are more women than men in the absolute number of 21.144 persons in Srem, there is more to 7.627, or only 1 %. The explanation of this sex structure is in the fact that life in the countryside is difficult and then the woman's world moves in the cities where community and other services far more developed.

The age structures of the population of Srem feature the contingent between 40 and 50 years. In the best way, it can be see on the age pyramid, which is classification in the regressive type. The average age of the population ranges from 41,3 years (in the municipality of Novi Beograd) to 38,6 years (in the municipality of Stara Pazova). It is generally better for a couple of years ago, in cities than in others villages. This can be explained by better organization of health care in cities.

The ratio of old and young people and index of demographic aging of Srem is 0,97 (average for Vojvodina is 0,95, and for the Republic of Serbia is 1,01). If is the limit of value, which showing aging some population is in excess of 0,4 (Rancic, 1979), it can be concluded that the population of Srem in the advanced stages of aging. This is cause by low population growth rate (see Table 1). In the age group, under 20 year, men make up a slight majority of the 1 %, while in the group over 60 years ago, women make up the majority of 7 %. This inequality can be explained by the fact that women on average live a few years longer than men.

In the region of Srem, according to the records of the Statistical Office of the Republic of Serbia, live 671.576 people older than 15 years (82 % of the total population). In terms of marital structure, married people make the most of the total number of 386.368 persons (which makes 57 % of the population older than 15 or 47 % of the total population). Number of single persons is 180.411 people (27 % of the population older than 15 years, or 22 % of the total population). It should be note that the number of unmarried compared to married persons increased by 19.555 persons, or 11 %, while divorced women is about 14 % higher than divorced men. The first fact explained by the late entry of men into marriage, while the other longer life expectancy of women and a higher degree of secondary marriage for men.

DEMOGRAPHIC DEVELOPMENT AND POPULATION ACTIVITIES

Natural growth of the population of Srem during the last two decades was negative, and the demographic development based mainly on the positive balance of the physical movement of people. Number of persons who lived from birthday in the same area is around 40 %. The majority of allochthonous population comes from states from the former SFRJ (Croatia, Bosnia and Herzegovina, etc.; Census of Population, Households and Dwellings in 2002 year, Vol. 8 SORS, Belgrade).

In the area of Srem share of active persons is approximately 45 % (national average is 45,3 %), and persons with personal incomes and supports persons share of 55 %. It is an indicator of a high degree of demographic aging of the territory, while the level of the share of supports persons from 34 % indicates signs of economic backwardness and underdevelopment. This confirms the relationship between persons with personal income and supports persons on the one hand and active people on the other side, which is 1:1,22. It ranges from 1:1,10 near Backa Palanka-part (Nestin and Vizić) to 1:1,28 by Ruma. The relationship between persons with personal income and active persons is 1:2,26. If we take the lower limit of the developed areas of the 1:4 then it is another indication of population extinction of the territory. It ranged from 1:3,63 (B. Palanka-part) to 1:1,74 (Novi Belgrade).

Most of people in Srem are employing in manufacturing (22 %) and trade (16 %). These figures should be taken with a grain of salt, because a large part of the population of suburban villages are, so coll, "polutani" (those persons work in the cities, and after his returning to home, thay work in agricultural production, too). Primary activities (agriculture, hunting, etc.) are amployed 12 % of the population of Srem. Per municipality, the largest share of the agricultural population has Srem's part of Backa Palanka (54 %), Irig (40 %), Sid (35 %) and Sremska Mitrovica (25 %), while the smallest proportion of this kind of population group has Belgrade (1 %) and Zemun (2 %). The relationship between the number of dependents and the number of active agricultural population is 1:0,75. This ratio is the best in the municipality of Novi Beograd (1:1,15), and the worst in the municipality Beocin (1:0,55), Zemun (1:0,56) and Backa Palanka-part (1:0,57).

Activities related to handling with estate and renting, deals 5 % of the population of Srem. This kind of activity is most common in the municipality of Novi Beograd (9

Table 1. The movement of population growth rate in the territory of Srem from 1972 to 2008 (in %)

MUNICIPALITY	1972-1980	1981-1990	1991-2001	2002-2008
Sr. Karlovci	3.69	2.13	-1.51	-3.82
Beocin	4.40	3.58	-0.37	-2.89
Novi Sad (part of)	8.95	5.64	1.58	-0.36
B. Palanka (part of)	1.85	-1.32	-5.62	-8.06
Zemun	11.0	6.52	0.60	-0.63
Surcin	13.34	7.76	-0.42	-1.32
N. Beograd	9.62	5.49	-0.38	-1.97
Indjia	6.27	2.72	-2.72	-5.13
Irig	-2.78	-2.11	-7.92	-8.79
Pecinci	2.02	2.26	-2.63	-
Ruma	4.75	1.72	-7.84	-5.44
Sr. Mitrovica	7.68	2.55	-1.42	-2.47
Sr. Pazova	6.63	4.78	-0.68	-2.11
Sid	2.45	-0.32	-4.71	-6.50
SREM	5.70	2.96	-2.43	-3.81

Source: Documentation and Records, Statistical Office of the Republic of Serbia, Belgrade.

%) and Zemun (7 %). Generally, territory of Srem, to the functional typology, which is based on the structure of the active population by activities (Grcic, 1999), may be classified in service-industrial landscape (I = 12 %, II = 22 %, III = 66 %).

Against to the records of the Agency for Business Registry, on the territory of Srem, on the end of 2010 year, were 16.044 active companies. In this figure are not included the settlements of Novi Sad (the number of companies of the city is 9.797) and Backa Palanka (742 companies), because the Agency do not have a database on the settlement level. So, in the number of companies of municipality Sremska Mitrovica, it is included, also and the number of companies operating in the territory of Macva (Zasavica 1, Zasavica 2, Macvanska Mitrovica, Ravnje, Radenkovic, Nocađa and Salas Nocađski). Most of them are representing retail shops and workshops. Majority (over 75 %) was incorporated in the southeastern part of Srem. Here are representatives machine ("IKAR-BUS" - Zemun, "Teleoptik" - Zemun, "IMT" - Novi Beograd, "Ferointex" - Stara Pazova, etc.), chemical and pharmaceutical ("ICN" Galenika - Zemun, "Grmec" - Zemun "Jub" - Simanovci etc.), food-processing ("Nestle" Stara Pazova, "Milk Zemun", "Coca-Cola" - Zemun, "Milnpek" - Stara Pazova, "Basement Irig" - Irig, "Frigosrem" - Irig etc.) and textile industries ("Antre" - Belgrade).

The industry Sremska Mitrovica employs 5.100 people (Gavric et al, 2008). They mostly work in food and metal processing industry (valve factory, sugar factory, meat factory - "Mitros", factory for the production and prepared animal food, etc.). Cellulose factory "Matroz" from Sremska Mitrovica was the one of the main pollutant of Srem wa-

Table 3. The arrangement of active companies in the territory of Srem on the day 09.12.2010.

Municipality	Number of companies		Municipality	Number of companies	
Sr. Mitrovica	753	5 %	Irig	111	1 %
Ruma	497	3 %	Indjija	663	4 %
Sid	338	2 %	St. Pazova	900	6 %
Pecinci	167	1 %	Surcin	494	3 %
Sr. Karlovci	116	1 %	Zemun	4105	25 %
Beocin	156	1 %	N. Belgrade	7744	48 %

Source: Business Registry of Republic of Serbia, Belgrade.

ter. Due to sanctions and unprofitable business, it is now in bankruptcy and in process of privatization, so production was break.

Industrial production is the least developed in the western part of Srem. The industry of food stands out the factory of plant edible oil and biodiesel “Victoria Group” from Sid and the chemical factory paint “Hempro-Sid”. Also in this part of Srem was represent the construction industry (“Tim-izolirka”) while the famous wineries “Erdevik” is bankrupt, and is practically closed.

Among the many business companies to Geocological issue is interesting Cement Factory in Beocin. It annually produces over 1,1 million tons of cement and employs about 600 workers. On the territory of Fruska gora above has several open pits (Mutalj - 70 ha, Filijala - 180 ha, Belo Brdo - 160 ha, Beli Kamen – 60, Opciste - 80 ha Subic et al, 2008). They are located on the outskirts of the National Park and in its protection zone. Although its relatively small area (approximately 0,5 % buffer zones), these mines indirectly affect the geological diversity of the National Park (on his ekotop, subterranean water, etc.).

Opencast mining Mutalj and Beli Kamen are, unlike other mines, on the southern outskirts of Fruska gora in the area of settlement Besenovacki Prnjavor. From them the limestone is transported by trucks to Beocin (factory is located in the western part of the village), and transported to a distance of about 18 km. Transportation route leads through the National Park and its protected zone of the second and third degree by contaminate noise, exhaust fumes and dust. Overburden is the same way back and stored on the periphery of these mines. There are open pit Beli Kamen out of use, and there wse made a lake who also was stocked.

Treatment process of limestone and marl and productions of cement and other building materials until 2002 year, when factory bought the French multinational company Lafarge BFC, was the ecological problem. With its high emissions of greenhouse gases (nitrogen dioxide, sulfur dioxide, benzene and xylene), heavy metals (arsenic and cadmium) and soot, caused an increase in the population Beocin percent of patients with respiratory and cancer sickness (Subic et al, 2008). By placing the electro-filter, level of harmful particles and gases is reduc to approximately the legal limit (Cvijanovic et al, 2008). Thus, in the example of the functioning of this factory can see that undue administrative, statistical and economic division of Srem conducted by the Statistical Office of Serbia.

FUNCTIONAL CLASSIFICATION OF SETTLEMENT

Functional classification of the settlement is significant not only for practical, space-planning reasons, but also for understanding geocological processes. On the territory of the eastern part of Srem, which belongs to the Republic of Serbia, exists about 132 settlements. In the statistical analysis of population, households and dwellings, Statistical Office of Serbia, Srem has established 128 settlements. Settlements Zemun, Batajnica, Zemun Polje, Plavi Horizont and Busije classified into one inhabited place called Belgrade-part. These settlements by administrative and management division, belong to the 14 municipalities (Novi Beograd, Zemun, Zemun, Stara Pazova, Indjija, Irig, Srem-ski Karlovci, Petrovaradin, Beocin, Backa Palanka, Ruma, Pecinci, Sremska Mitrovica and Sid). Srem's settlements are generally compacted, type of Pannonian, with a population of over 1.000 persons.

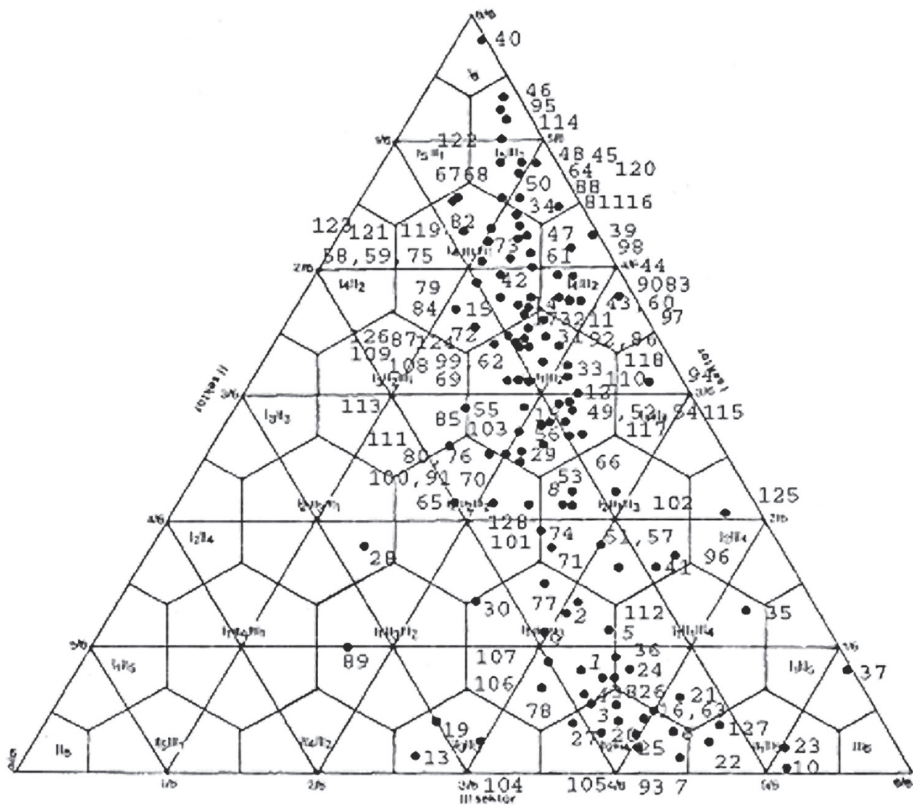
Table 3. Classification of the settlement of Srem by demographic size

Number inhabitants	Number of settlements		The share by percent	
	2002.	2011.	2002.	2011.
< 100	2	3	2	2
100-1000	39	50	30	39
1000-5000	65	56	51	44
5000-15000	14	12	10	9
15000-30000	4	5	3	4
30000-80000	2	1	2	1
> 80000	2	1	2	1
Total:	128	128	100	100

According to the classification of settlements that serve Statistical Office of the Republic of Serbia, in the territory of Srem has 18 urban and 110 others settlements. In urban settlements include: New Belgrade, Belgrade-part, Dobanovci, Zemun, Indjija, Stara Pazova, Petrovaradin, Irig, Srem Karlovci, Sremska Kamenica, Beocin, Sremska Mitrovica, Ruma and Sid. Under the others settlements are considered rural (Asanja, Sibac, Prhovo, Subotiste, Vojka, Golubinci Krnjesevci, Erdevik, Surduk, Novi Karlovci etc.), suburban settlements (Novi Sad, Nova Pazova, Simanovci, Ledinci, Lacarak etc.) and spas settlements (Vrdnik and Stari Slankamen). On the ground of basic and special functions, and functional capacity, which contain "other settlements", it is possible their classification (Simonovic, Ribar, 1993). Under the basic functions are considered public utilities (inns, shops, post office, pharmacy, etc.), cultural, managerial and administrative (local community, the local office and the police) and others. Special functions related to administrative-management, tourism and residential-agricultural. According to the criterion by Dj. Simonovic rural settlement of Srem classified into the following types:

1. *Primary rural settlements* have agricultural and residential function. In this type includes 32 villages and 27 % of the village. Such as: Vizic, Jamena, Slankamenacki Vinogradi, Grabovo, Grgetek, Besenovacki Prnjavor, Stara Bingula, Zarkovac, Donji Petrovci, Mali Radinci, Kraljevci, Pavlovci, Stejanovci, Voganj, Vitojevci, Ljuba, Molovin, Privina Glava, Bikic Do, Berkasovo, Ilinci, Gibarac, Batrovci, Sisatovac, Lug Krusedol Prnjavor, Velika Remeta, Neradin, Rivica and Satrinci.
2. *Settlement with rural centre* have except agricultural and residential function and health, educational, cultural, commercial, etc. function of limited capacity. This group belongs 39 villages (34 %): Nestin, Novi Slankamen, Surduk Asanja, Novi Karlovci, Maradik, Svilos, Dobrodol, Jazak, Kukujevci, Bacinci, Dec, Donji Tovarnik, Ogar, Subotiste, Brestac, Popinci, Prhovo, Sreski Mihaljevci, Sibac, Grabovci, Nikinci, Budjanovci, Visnjicevo, Bosut Sremska Raca, Krusedol Selo, Martinci, Suljam, Mandjelos, Grgurevci, Adasevci, Calma, Veliki Radinci, Stejanovci, Dobrinci, Klenak, Bingula and Jarak.
3. *Community centre of rural settlements*, they possess the basic functions and combined with primary surrounding villages. Such settlements account 11 % of the villages: Morovic, Erdevik, Belegis, Kupinovo, Obrez, Krcecin, Hrtkovci, Platicevo, Sot, Vasica, Divos, Gibarac and Lezimir.
4. *Touristical or spa settlements* include besides the basic functions and special tourist-recreational or medical service. This type of settlement is Vrdnik and Stari Slankamen. Of the total number of villages, they make 2 %.
5. *Rural settlement - the municipaliti centre*, makes vilages who is menage-administrative center of the municipality. Pecinci is only settlement, on the territory of Srem, that belongs to this functional type village.
6. *Suburban rural settlements* situated by their function and capacity corresponding to the "settlement with rural centers" or "community centers of rural settlements". This group comprises about 29 villages (25 %) and they are: Becmen, Boljevci, Jakovo, Progar, Petrovcic, Ugrinovci, Karlovcic, Nova Pazova, Batajnica, Zemun Polje, Plavi Horizont, Busije, Novi Sad, Novi Banovci, Simanovci, Ledinci, Bukovac, Stari Ledinci, Rakovac, Lacarak, Beska, Cortanovci, Ljukovo, Putinci, Krnjevci, Golubinci, Vojka, Kuzmin and Cerevic.

Another type of functional classification of settlements are made on the method "tenarnog" diagram, which is based on a structural share of population employed in the primary, secondary and tertiary sectors, according to the tipology of M. Grcic (Grcic, 1999). This classification is slightly modifying the primary sector except agriculture and forestry, include hunting, fishing and the mining industry, too. The secondary sector is confine only to the manufacturing industry, while other activities belong to the tertiary sector (generation and supply of electricity, gas and water, construction, trade, hotel trade, transport, storage and communications, financial management, earning rent, public administration, education, health and social work, public utilities and private workshops). Determinations of settlements types the boundary of mixed and agrarian willages are expand and introduce a service type of settlement.



Legend:				
1. Beemen	27. Indjija	53. Karloveci	79. Stejamovci	104. N. Pazova
2. Boljevci	28. Jarkovec	54. Kupcinovo	80. Hrtkovec	105. N. Banovci
3. Dobanovci	29. Creedin	55. Obrez	81. Besenovački Pr.	106. St. Pazova
4. Jakovo	30. I. Jakovo	56. Ozar	82. Besenovo	107. St. Banovci
5. Progar	31. Marađak	57. Pecinci	83. Bosut	108. Sandak
6. Surcin	32. N. Karloveci	58. Popinci	84. V. Radinci	109. Adaseveci
7. Zemun (Bz)	33. N. Slankamen	59. Prhovo	85. Ogurevci	110. Batrovci
8. Petroveci	34. St. Vinograda	60. Sibac	86. Divos	111. Bacinci
9. Ugrinovci	35. St. Slankamen	61. Sr. Mihaljevci	87. Jarak	112. Berkusovo
10. N. Beograd	36. Cortanovci	62. Subotizte	88. Kuzmin	113. Bikić Do
11. Vazic	37. V. Remeta	63. Simanovci	89. L. Cacak	114. Bingula
12. Nestin	38. Vrdnik	64. Budjanovci	90. Lezimir	115. Vasca
13. Beocin	39. Girpeteg	65. Vitojevci	91. Mandjelec	116. Visnjacevo
14. Grabovo	40. Dobrodol	66. Voganj	92. Martinci	117. Gibarac
15. Lug	41. Irig	67. Grabovae	93. Sr. Mitrovica	118. Ercevik
16. Rakovae	42. Jazak	68. Dobrinci	94. Sr. Raca	119. Ilinci
17. Svilos	43. Krusedol P.	69. D. Petroveci	95. St. Bingula	120. Jamena
18. Susak	44. Krusedol S.	70. Zalma	96. Calma	121. Kukujevci
19. Cerevic	45. M. Remeta	71. Klenak	97. Savinci	122. Juba
20. Bukovac	46. Neradin	72. Kraljevci	98. Ssatovac	123. Melovin
21. Ledinci	47. Rivica	73. M. Radinci	99. Suljam	124. Merovic
22. Petrovaradin	48. Satinci	74. N. Kinci	100. Belegus	125. Privna Gl.
23. Kamenica	49. Asanja	75. Pavlovci	101. Vojka	126. Sot
24. St. Ledinci	50. Brestac	76. Platicevo	102. G. Plubinci	127. Sid
25. Sr. Karloveci	51. Dec	77. Putinci	103. Krnjevci	128. Banostor
26. Besica	52. D. Tovarnik	78. Ruma		

Figure 2. The tenar diagram of the active population of the villages of Srem (for year 2002)

According to this method, in the area of Srem, there are the following types of settlements:

1. *The agricultural settlements* (I > 54,8 %, II < 19,6 % III < 29,0 %) are represented with 52 wilages (with a share of 41% of the total number of settlements): Vizic, Nestin, Grabovo, Svilos, Susek, Maradik, Novi Karlovci, Novi Slankamen Slankamenacki Vinogradi, Grgetek, Dobrodol, Jazak, Krusedol Selo, Krusedol Prnjavor, Mala Remeta, Kuzmin, Lezimir, Martinci, Stara Bingula, Surduk, Bingula, Jamena, Kukujevci, Brestac, Satrinci, Rivica, Neradin, Sot, Visnjicevo, Adasevci, Sasinci, Sisatovac, Suljam, Ilinci, Ljuba, Molovin, Popinci, Prhovo, Sremski Mihaljevci, Budjanovci, Grabovci, Dobrinci, Kraljevci, Mali Radinci, Pavlovci, Stejanovci, Besenovacki Prnjavor, Besenovo, Veliki Radinci, Divos and Jarak).
2. In *the agrarian-industrial* (II 19,6-50,0 %, III 0-25,6 %) type are two villages (2 %): Jarkovci and Bikic Do.
3. *The agro-service* (II 0-19,6 %; III 25,6-50,0 %) category include 13 villages (11 %): Privina Glava, Asanja, Dornji Tovarnik, Kupinovo, Obrez, Ogar, Sibac, Subotiste, Voganj, Donji Petrovac, Nikinci, Bosut and Grgurevci.
4. *Mixed type* of settlement (I 0-54,8 %; II 6-50 %; III 25,6-56,0 %) presented with 29 villages (22 %): Petrovcic, Lug, Krcedin, Ljukovo, Lacarak, Mandjelos, Sremska Raca, Calma, Belegis, Vojka, Golubinci, Krnjesevci, Banostor, Bacinci, Berkasovo, Vasica, Gibarac, Erdevik, Morovic, Dec, Karlovcic, Pecinci, Vitojevci, Zarkovci, Klenak, Platicevo, Putinci, Stari Slankamen and Hrtkovci.
5. *The service-industry* (II 19,6-50,0 %; III > 50,0 %) type includes 26 villages (20%): Becmen, Boljevci, Dobanovci, Jakovo, Progar, Zemun, Belgrade-part, Ugrinovci, Bukovac, Ledinci, Petrovaradin, Stari Ledinci, Sremski Karlovci, Beska, Indjija, Cortanovci, Irig, Sremska Mitrovica, Nova Pazova, Novi Sad, Stara Pazova, Sid, Simanovci, Vrdnik, Stari Banovci and Ruma.
6. *The industry-service* type (II > 50 %; III 25,6-50,0 %) include 3 villages (2 %): Beocin, Rakovac and Cerevic.
7. *The service* type (II < 19,6 %; III > 50,0 %) includes also three settlements (2 %): Novi Belgrade, Sremska Kamenica and Velika Remeta.

Applying the previous two classification methods of settlement, can be concluded that are presented the most agrarian settlements (41 %) and according to the functional type, primary rural settlements and settlement with rural centers. They are mostly locating in the southern and western slopes of Fruska gora and in the southwest and southern Srem. Between Belgrade and Novi Sad and on the northern slopes of Fruska gora is largely suburban areas (mixed industrial and service-settlement). In these settlements expressed deagrarisation and urbanization, and they are accompany by sporadic industrialization.

In view of the 59 villages, which are located in the protection zone of the national park Fruska gora (Nestin, Vizic, Susek, Lug, Ljuba, Molovin, Sot, Bikic Do, Privina Glava, Berkasovo, Sid, Gibarac, Bacinci, Kukujevci, Erdevik, Bingula, Stara Bingula, Divos, Calma, Sisatovac, Lezimir, Mandjelos, Grgurevci, Suljam, Besenovo, Besenovacki Prnjavor, Vrdnik, Jazak, Mala Remeta, Stejanovci, Pavlovci, Rivica, Irig, Neradin, Grgetek, Velika Remeta, Prnjavor, Krusedol Selo, Sremski Karlovci, Bukovac, Stari Ledinci, Led-

inci, Sremska Kamenica, Petrovaradin, Rakovac, Beocin, Cerevic, Banostor, Grabovo, Svilos, Maradik, Beska, Cortanovci, Krcecin, Slankamenacki Vinogradi, Novi and Stari Slankamen) the situation is the following:

- In the *agricultural* type of settlement falls 51 % (29 settlements),
- The *agrarian-industrial* type makes one settlement (Bikić Do),
- In the *agro-service* type are 3,5 % settlements of mountain Fruska gora,
- In the *mixed* type of settlement is among the ten, which makes 17,5 % of the village of landscape Fruska gora,
- The *service-industry* type also presented with ten villages, that including 17,5 % of settlements Fruska gora,
- In the *industry-service* type of settlements of landscapes Fruska gora belong: Beocin, Rakovac and Cerevic (5 %),
- In the *service* type of the villages includes Sremska Kamenica and Velika Remeta (3,5 %).

At the edges of Fruska gora or National Park, *vikendasi* (people which can hear only on weekend), which among of them are from Novi Sad, are with sporadic construction of the summer-home made real hamlets. Some home for weekend are also in the National Park (e.g. in the area of settlement Cortanovci, about two hundred houses, and in the area of Velika Remeta about fifty). These settlements are the biggest act in the interim type and are not included by statistical records and functional typology.

In the protection zone of a special nature reserve *Obedska bara* there are five villages (Obrez, Kupinovo, Grabovci, Ogar and Asanja). Besides Grabovci, which belongs to agrarian type, others grouped in *agro-service*.

CONCLUSION

The territory of Srem is a complete natural compound that has a population of 779.000 people and 132 villages. It is characterized by uneven density, uneven economic activity, negative population growth, population age regression, a positive migration balance, regression of the active and progression of the dependent population. It is necessary to note that the negative trends in the physical and natural population growth would result in further reduction of the population of the Srem that will be particularly felt in its western part.

In the near future, villages of Srem are not affected by the shutdown process, because only the monastery village of Velika Remeta and Grgeteg among in to the group of villages with less than 100 inhabitants. Most of them (51 %) are in the group with a population between 1000-5000. Statistical Office of Serbia recognizes 128 settlements, and sorts them into 18 urban and 110 others settlements. According to model of Dj. Simonović, other settlements can be classified into six types: *primary rural villages* (27 %), *settlement with rural center* (34 %), *community of rural settlements* (11 %), *touristical or spa settlements* (2 %), *rural settlements – the municipal centre* (1 %) and *suburban rural settlements* (25 %). Using the modified model by M. Grcic, the classification of Srem

settlements, get the seven types of settlements: *agricultural* (41 %), *agrarian-industrial* (2 %), *agro-service* (11 %), *mixed* (22 %), *service-industry* (20 %), *industry-service* (2 %) and *service* (2 %).

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