DEMOGRAPHIC CHALLENGES AND SPATIAL DISTRIBUTION OF THE POPULATION IN THE REPUBLIKA SRPSKA

RAJKO VRANJEŠ
E-mail: rajkovr@hotmail.com

DARA PETKOVIĆ
E-mail: dara.petkovic@rzs.rs.ba
Institute of Statistics

Veljka Mladenovića 12d, 78000 Banja Luka, the Republika Srpska
Bosnia and Herzegovina

ABSTRACT: For the first time in 22 years, an official census of population was carried out on the territory of the Republika Srpska. This is the first time that we have data (preliminary results) based on which we can examine the demographic situation, spatial distribution of the population and certain ongoing demographic processes. Based on the analysis of preliminary results on the total number of enumerated persons and through the analysis of natural increase in migration flows, the article will present the demographic problem faced by the Republika Srpska. The analysis of first results shows that entire regions have low population densities, being affected by depopulation which is caused mainly by negative natural movements and migrations. Rural areas which represented a demographic potential are being depopulated and some of them have no inhabitants at all. The unfavourable spatial distribution, low level of natural regeneration and constant emigration seriously endanger the total number of population in the Republika Srpska, which has been steadily declining ever since 2002. Constant negative socio-economic effects in the short term could jeopardize the development of the population and the very maintenance of infrastructure in settlements in Republika Srpska.

KEYWORDS: The Republika Srpska, density, demographic trends, migration

The first part of this article gives a brief historical overview of factors that affect the territorial distribution of population, as well as categorization to determine the population density. The second part of the article presents the analysis of population distribution and population density to the level of settlements. Results of the population density are compared with the European average and with the Census 1991. In the third part, the authors suggest certain
measures for the demographic recovery of the Republika Srpska, in order to improve its demographic structure.

The earliest debates on population were caused by fear from a lack of means necessary for living, as well as by the dread of territorial overpopulation. Even though a big step has been made in the civilization development since then, there is still a fear of overpopulation on the one hand and fear of areas being depopulated, on the other. In the early phases of society development, territorial distribution was determined by the relief, soil quality, climate and other natural resources. In conditions of a predominantly agricultural economic structure, natural-geographical and pure demographic factors played the key role, while in the industrialization and urbanization phases economic and social factors were of the utmost importance [Breznik, 1982]. Along with the phases of social development, the role of geographical determinants has weakened; therefore the hitherto negligible effects have been slowly taking precedence in the territorial distribution. These effects are primarily social organization, level of economic development, economic and professional structure of population, and other social and economic reasons. The effects of complexity and intertwining of various factors on the territorial distribution, require a deep and comprehensive analysis of a wider professional and scientific public. Spatial distribution of the population must be pointed out to local communities (municipalities) for a balanced development of areas at the local level, but also at higher levels of territorial organization. Increasing changes in structures of the population, which have been happening along with the ageing process in the developed part of the world, also affect the population distribution. On the other hand, in the underdeveloped parts of the world, young population tends to improve the living conditions, which results in an uneven spatial distribution. Population density is increasing around the already densely populated areas, while it is decreasing in sparsely populated areas, and there is a tendency of these areas remaining uninhabited.

In the light of the events which occurred during the last decade of the 20th century on the territory of the Republika Srpska, certain processes were in progress which could not have been explained from scientific perspective, due to the lack of official data on the population and its structures. The implementation of the Census of population in 2013 and publication of its preliminary data by settlement provided a basis for certain demographic and spatial analyses of the population in this region and interaction with other continuously monitored demographic trends. Preliminary results, presented by settlement, municipality and city, will provide a clearer image of the population density and, through certain migration components, a clearer image of population movement toward specific centres as well.

The territory of Republika Srpska has a square area of 25,641 km² with an internal territorial organization of 57 municipalities and 6 cities [Statistical Yearbook of the Republika Srpska, 2013]. According to preliminary results of the Census 2013, there are 1,326,991 enumerated persons on this territory.
The population density in the Republika Srpska is 51.8 inhabitants per 1 km² in 2013, which is equal to the population density in the world in 2012. In 2011, the EU-27 population density was estimated at 117 inhabitants per square kilometre, which means that the EU is twice as densely populated as the territory of the Republika Srpska. According to the data obtained through the Census 2013, there are 36 municipalities and one city (Trebinje) (60%) where the population density was below the general population density of the Republika Srpska, while there are 21 municipalities and 4 cities (40%) which have a population density higher than the general one. The most municipalities below the general population density of the Republika Srpska are in the southern and southeastern parts of the Republika Srpska, from Trebinje to Šekovići. In the central part, Istočna Ilidža and Istočno Novo Sarajevo, as well as the entire eastern part from Bratunac to Bijeljina and Lopare, population densities are higher than the general one at the level of Republika Srpska. For the northern and western parts, higher population densities are recorded, but in these parts there are certain municipalities with population densities below the general one.
There are various categorizations of population density in the scientific literature. Categories for population density can be made in different ways (based on the world population density, based on the European one or based on the national density). The most commonly used categories for the general population density are: a) low population density, with less than 15 inhabitants per square kilometre, b) medium population density with between 15 and 64 inhabitants per square kilometre, c) high population density with between 65 and 115 inhabitants per square kilometre, and d) overpopulation with more than 115 inhabitants per square kilometre [Nejašmić, I. 2005, Population in spatial relationships and processes, page 22].

Map 2. *Population density in the municipalities of RS according to the above categorization*

Based on this categorization and results of the analysis, 11 municipalities or 18% of them meet the criteria of low population density (Istočni Drvar, Istočni Mostar, Kalinovik, Petrovac, Kupres, Berkovići, Oštra Luka, Han Pijesak, Istočni Stari Grad, Ljubinje and Gacko), 31 municipalities and the city of
Trebinje (52%) meet the criteria of medium population density, 12 municipalities and the city of Doboj (21%) meet the criteria of high population density, while 9 municipalities and the cities of Banja Luka, Bijeljina and Prijedor (10%) are overpopulated. The square area with low population density amounts to 12.6% of the total territory of the Republika Srpska, the square area with medium density covers 59.7% of the territory, the square area with high population density 14.1%, while 13.1% of the territory is overpopulated. Medium population density is the most common in units of local self-government in the Republika Srpska.

General population density represents a measure which shows the total number of population per square area unit, i.e. it presents the average and involves all shortcomings of calculating averages. General population density must be considered in the framework of natural and geographic conditions and economic and social development of an area. In this regard, comparison of the national level with the density at the city/municipality level is more relevant. Certain developed cities/municipalities with general population density over 115 inhabitants per square kilometre are not necessarily overpopulated, while on the other hand certain cities/municipalities with 40 to 50 inhabitants per square kilometre may be overpopulated. Differences in general population density are evident between municipalities, as the ratio between the lowest and the highest population density amounts to 1:254, which is a significant difference (municipality Istočni Drvar has the population density of 2 inh./km², while on the other hand the municipality Istočna Ilidža has the density of 508 inh./km²).

General population density in the EU-27 1,146 inhabitants per km² in 2012, world population density was 51.8 inhabitants per km², USA 32.8 inhabitants per km², India 382.8 inhabitantats per km², Japan 334.6 inhabitants per km², South Korea 488.1 inhabitants per km², Russia 8.4 inhabitants per km². Central Paris was by far the most densely populated part of the EU-27 (estimated 21,464 inhabitants per km² in 2012), followed by the London–West (over 10,000 inhabitants per km²). The region with the lowest population density in the EU-27, according to the data from 2012, is Lappi, northern Finland, with 2 inhabitants per km² in 2011.

Analysis of the period between the two Censuses in 1991 and 2013 indicates that the population of the Republika Srpska decreased by 231,396 inhabitants, or by 14.8%. Of the total number of cities and municipalities in the interval between censuses, in 51 or 82.2% of them a decrease in population was recorded. The highest decrease was recorded in the eastern parts of the Republika Srpska, in the following municipalities: Berkovići, Bratunac, Višegrad, Vlasenica, Istočni Mostar, Kalinovik, Novo Goražde, Rogatica, Srebrenica, Trnovo, Foča, Han Pijesak and Čajniče [Marinković and Vranješ 2013]. Out of 2,756 settlements, 530 or 19.2% have less than 10 inhabitants. Most of such settlements are located in the eastern part of Republika Srpska, in the municipalities Višegrad (78), Kalinovik (45), Rogatica (34), Novo Goražde (33), Rudo (27), Foča (23) and Gacko (21), as well as in the city of Trebinje (68).

These current trends in population movements in Republika Srpska represent a long-term factor in the development of future demographic processes
and changes. Human resources are not unlimited, and any consideration of the future must take into account the minimum population needed to maintain the existing infrastructure [Đurđev 2007].

The demographic trends indicate a decrease in the number of live births and an increase in the number of deaths. Since 2002, birth rate has been negative. The number of live births has been decreasing for years, and the lowest value was recorded in 2011, with 9,561, while the highest number of deaths was recorded in 2007, with 14,146. The rate of total fertility has been steadily declining since 1960 and it decreased from 3.95‰ to 1.65‰ in 1991, while it is estimated that in 2008 it amounted to 1.26‰. Distribution of fertility rates by age of mother has been changing noticeably, as well as the number of live births of the second child, third child etc. The age of mother at birth of the first child has been increasing. The number of mothers with the first, second, third or more children has been decreasing. The age at marriage has shifted, the average age of bride in 2012 was 27.8 and the average age of groom was 31.5.

Map 3. Spatial distribution of population in the Republika Srpska
Migrations of the population have not been sufficiently monitored; therefore it is very difficult to discuss them from the scientific perspective. If we assume that the territory of Bosnia and Herzegovina was emigration-oriented even before the war, then we may conclude that nowadays, in the conditions of insufficient economic and social development, the population emigrates from the territory of the Republika Srpska rather than immigrating. Since 2007, internal migrations between entities have a positive net migration for the entire observed period, but these have to be taken with precaution, because there are occurrences of artificial records of citizens who wish to realize certain interests but who are not really residents of the territory of the Republika Srpska.

The density and distribution of population are main reasons of general demographic events and they are largely dependent on other phenomena and processes. The first step towards achieving a balanced distribution of population is to stop the negative demographic processes.

The question is how to respond to the challenges of transforming a society that is moving in the direction of decreasing birth, longer life expectancy, increasing number of older citizens and lack of socio-economic development, in order to deal with these changes in a proper way. Directions of the development of the population as a whole as well as the development of various demographic structures must be planned and their positive level has to be achieved.

Nowadays, it is absolutely necessary to retain the current demographic trends through measures which would later lead to a slight increase. Demographic analysis should be carried out and, if necessary, administrative-territorial units should be reorganized. Rural areas with demographic potential should be identified and, as such, stimulated through various incentives, thus keeping the remaining population in these areas, while at the same time making efforts to reach an increase in the number of population and improve the quality of the population structure. Timely action among the population who are most likely to leave the country would prevent the departure of all population categories, especially of those who are the most active part of the society. Good habits and customs of the people at the local and republic level should be directed in constructive terms, in order to build stronger and compact communities that would promote family values. With insufficient economic development, unemployment problems, extreme polarization of the population, disturbed population structure and a prominent feeling of relative poverty, there is little chance for the demographic recovery of the population in the Republika Srpska.

CONCLUSION

The population of Republika Srpska is facing a huge challenge, as the total number of citizens has been decreasing since 2002. The main reason for this decrease is the natural movement of population. A decrease in the total number of citizens and insufficient economic development affect the spatial distribution and population density. A consequence of such movements is the polarization of population density. Disproportion in the demographic size of
Banja Luka and other major cities is a result of the incoherent and asymmetrical urban system of the Republika Srpska. The population is concentrated in areas with higher population density, without an organized spatial distribution, which results in the pressure on unprepared and insufficiently developed urban centres on the one hand, while on the other hand, smaller municipalities and remaining rural areas in particular are being depopulated. In terms of population, southern and southeastern parts of the Republika Srpska are the most vulnerable, followed by municipalities in the areas of inter-entity borders. The concentration of population in these parts is the most evident in central parts of municipalities/cities with very low distribution in peripheral residential areas. Central, eastern and western parts are slightly more densely populated, with the highest population density in centres of municipalities/cities, but also with slightly higher concentration in suburbs and peripheries of municipalities/cities when compared with the abovementioned parts of the Republika Srpska. Due to generational changes, the expectations for the future include further decline in birth rates and increase in mortality, as well as a decrease in number of citizens, as a result of these changes. If these foreseen trends really do continue without taking certain measures to stop them, the distribution of population will be polarized to the extent that rural areas, especially in mountain areas, will remain completely uninhabited, while municipality/city centres (regional centres in particular) will accommodate the remaining population from rural areas.

REFERENCES

РЕЗИМЕ: Na teritoriji Republike Srpske nakon 22 godine spроведen je značajan popis становништва. Po prvi put postoji podaci (prvi rezultati) na osnovu kojih se može na egzaktan начin sagledati demografska situacija, prostorni razmještaj становништва kao i pojedini demografski procesi. Na osnovu analize prvih rezultata o ukupnom broju popisanih лица, kao i analizom prirodnog priraštaja i migracionih kretanja dolazi se do zaključka da se ukuhan broj stanovnika smanjuje preko prirodnih i migracionih komponenti. Razmještaj i gустина насељености nije равномјера na teritoriji Republike Srpske, koncentracija становништva je najveća u centralnim našeљenim mjестima општина/градова. U будућности se очекuje, zбog генерацијских promjena daљi пад нataliteta, повећањe морталитете, i kao rezultat smanjenje broja становника. Ukoliko se naставе претпостављени trenovи kretanja bez предузимања планских mjera za њихovo заустављање, размјештај становништва će se polarizovati do те mjere да će ruralne средине нарочito u брдско планинским областима остati потпуно ненасељene a центри општина/градова (посебно регионални центри) će сместiti преостalo становништvo iz ruralnih области.

КЉУЧНЕ РИЈЕЧИ: Republika Srpska, gустина насељености, demografski trenovи, migracije