CHANGES IN THE NUMBER AND CHARACTERISTICS OF THE NATURAL INCREASE OF THE POPULATION OF GORNJE POLIMLJE IN THE SECOND HALF OF THE 20^{TH} AND THE BEGINNING OF THE 21^{ST} CENTURY

ĐOKO RAIČEVIĆ1*, IVAN MIJANOVIĆ2

¹Department of Geography, Tourism and Hotel Management, Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia

ABSTRACT

The northern part of Montenegro went through a very dynamic demographic development in the post-war period. The changes that have taken place can be characterised as both qualitative and quantitative, and are driven by various factors imposed by the overall social and economic development. In the second half of the 20th century, Gornje Polimlje increased the population of its towns, intensified urban development, established better social infrastructure, and achieved a more favourable openness to the surrounding countries. However, despite this, as part of north-east Montenegro it remained an underdeveloped area, which had a strong impact on the scope, intensity and quality of changes in its overall demographic development. The population of Gornje Polimlje is decreasing and the depopulation process has affected many local communities. Unfavourable demographic trends in this subregion began in the 90s of the previous century, and continued to intensify during the 21st century.

Keywords: Gornje Polimlje, Population, Population changes, Birth rate, Death rate, Natural increase.

INTRODUCTION

Gornje Polimlje is located in the northeast of Montenegro. It got its name from the fact that it covers the basin of the upper course of the river Lim. It stretches in a south-north direction, and comprises the composite Lim valley and mountains with mountain and sub-mountain parishes (Figure 1).

With its boarders, it covers an area of 1,032 km² (Bakić, 2005). Administratively, Gornje Polimlje consists of the following municipalities: Gusinje, Plav, Andrijevica and Berane.

Milisav Lutovac believed that Gornje Polimlje also includes Bihor, Korita up to the Kumanica Gorge, extending its borders eastward as far as Turjak. Bakić gave his objections to such borders in a paper from 2005. However, for the purposes of this paper, it was not possible to separate the population of Bihor due to the fact that the current municipality of Petnjica was part of the municipality of Berane until 2013, so the paper shows the change in the number of inhabitants as an integral part of the municipality of Berane until 2013.

The municipality of Gusinje was part of the Plav municipality until 2014, when it received the status of an independent municipality by the decision of the Government of Montenegro, following a consultative referendum.

The municipality of Andrijevica was also part of the municipality of Berane until the end of 1990, when it obtained its current status.

The movement of the total number of inhabitants of Gornje Polimlje resulted from a number of factors, in particular: the slower socio-economic transformation of the northern part of Montenegro compared to its other parts, as well as the regions in the near and far surroundings; unfavourable conditions for employment, culture and entertainment activities, and general living conditions compared to other regions of Montenegro. It should be pointed out that complete neglect of villages and the conditions for farming and living in the countryside had a significant impact on the overall demographic trends in this region (Bakić, 1994).

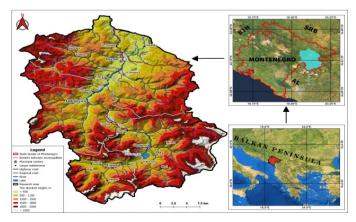


Figure 1. Geographical location of Gornje Polimlje (Source: Ivan Mijanović).

²Department of Geography, Faculty of Philosophy, University of Montenegro, Nikšić, Montenegro

^{*}Corresponding author: raicevicdjoko2013@yahoo.com GEOGRAPHY, GEOSCIENCE AND ASTRONOMY

MATERIAL AND METHODS

Changes in the total number of inhabitants in the second half of the 20th and the first decades of the 21st century can be reliably monitored based on the results of the censuses that took place in 1953, 1961, 1971, 1981, 1991, 2003 and 2011. For the periods between censuses, vital demographic statistics of the Statistical Office of Montenegro (MONSTAT) were used for the purposes of this paper. The methodological basis consists of the usual demographic, geographic and statistical methods. Demographic and geographic methods were used during the analysis of absolute changes in the total population of Gornje Polimlje, while statistical methods will be used when processing the quantitative and qualitative results of the research. This paper aims to indicate the trends of the total number of inhabitants in the second half of the 20th century, which was examined by Bakić in his work from 2005, as a supplement to those researches, the authors presented the changes in the first decades of the 21st century, making a descriptive analysis of contradictory changes that have affected this area. For the purpose of this paper, the following indicators of the natural movement of the population will be presented: birth rate, mortality rate and natural increase rate.

RESEARCH RESULTS

Changes in the number of inhabitants in the second half of the 20th century

In the period from 1948-2021, Gornje Polimlje, i.e. the municipalities of Plav, Gusinje, Andrijevica and Berane recorded a decrease in the number of inhabitants by 11,344 or 25.9% compared to 1948.

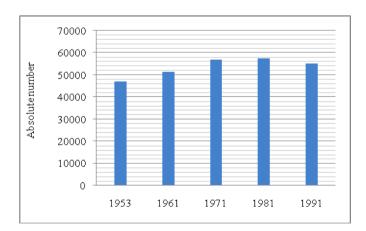


Figure 2. Number of inhabitants of Gornje Polimlje in the second half of the 20th century (Source: figure based on data: Bakić, 2005, p. 261).

Different periods exhibit different tendencies with respect to the increase and decrease of the population.

The second half of the 20th century was characterized by an upward trend, that is, an increase in the total number of

inhabitants. The number of inhabitants increased from 43,753 to 55,097 in 1991.

In absolute terms, the number of inhabitants per census year ranged (Figure 2): 1953 (46,930 inhabitants); 1961 (51,276); 1971 (57,073); 1981 (57,442); 1991 (55,097) (Bakić, 2005). Compared to Montenegro, Gornje Polimlje recorded a slower growth of the total number of inhabitants in the second half of the 20th century. The growth rates in this period were: 1961/53 - 1%; 1971/61 - 0.7%; 1981/71 - 0.1%; 1991/1981 - 0.5 %. Two periods can be distinguished during this interval: the first from the second half of the 20th century until 1981, when the population increased by 13,689 inhabitants, and the second period from 1981 to 1991, when the total number of inhabitants began to decline, with Gornje Polimlje losing 2,345 inhabitants during that ten-year period. Such movements of the population are the result of mechanical movement and gradual transition from agricultural to industrial economy.

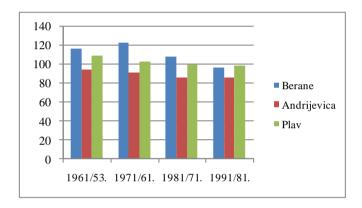


Figure 3. Vital index of the population in the municipalities of Gornje Polimlje 1953-1991 (Source: figure made on the basis of data: Bakić, 2005, p. 262).

With respect to the number of inhabitants, Berane had an upward trajectory and the number of inhabitants increased from 19,723 in 1953 to 29,096 in 1991. Population growth indices (Figure 3) in the inter-census periods for the municipality of Berane were: 1953/61 - 117; 1971/61 - 123.5; 1981/71 - 108.3; 1991/1981 - 96.4. In the second half of the 20th century, Andrijevica experienced a significant population decline, from 10,372 in 1953 to 6,696 in 1991. Andrijevica lost 35.2% of its population in this interval. Between the census years, the population movement index was: 1953/61 - 94.8; 1971/61 - 91.6; 1981/71 - 86; 1991/1981 - 86.8. In Play, the number of inhabitants was increasing between 1953 and 1991. The number of inhabitants increased by 1,575, or by 8.8% compared to 1953. The indices ranged from: 1953/61 - 109.1; 1971/61-103.2; 1981/71 - 100.1; 1991/1981 - 98.7.

The population of Gornje Polimlje is facing complex demographic problems, which are manifested by a decrease in the birth rate. In the period from 1971-2000, birth rates were in a constant decline. In this thirty-year period, the general birth

rate decreased by 40.8%. Montenegro also features similar trends, with the birth rate decreasing by 29.7%

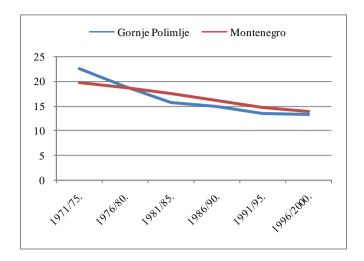


Figure 4. Changes in crude birth rate (‰) in Gornje Polimlje and Montenegro 1971-2000, (Source: figure based on data: Bakić, 2005, p. 263).

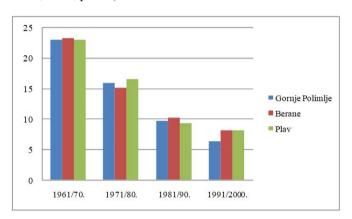


Figure 5. Natural increase (‰) in Gornje Polimlje from 1961-2000 (Source: figure based on data: Bakić, 2005, p. 265).

In the municipality of Berane¹, the general birth rate between 1971/75 stood at 22.6‰ (Plav 22.4); 1976/80 - 19.9‰ (Plav 18.1); 1981/86 - 15.9‰ (Plav 15.3); 1986/90 - 15.3‰ (Plav 14.6), 1991/96 - 14.1‰ (Plav 15.3; Andrijevica 11.2); 1996/2000 - 15.5‰ (Plav 13; Andrijevica 11.4), (Bakić, 2005).

The mortality rates of the population of Gornje Polimlje in the second half of the 20th and until the beginning of the 21st century can be characterised as low, but with a certain degree of growth. In the second half of the 20th century, mortality decreased in all age cohorts, with evident reduction in the general mortality rates of infants and children, primarily due to the improvement of the socio-economic characteristics of the population, as well as the improvement and modernisation of health care. General death rates ranged from 1971/81 - 5.4‰

(Berane 6‰, Plav 4.8‰), 1981/90 - 5.8‰ (Berane 6‰, Plav 5.4‰), 1991/2000 - 7.3‰ (Berane 6.6‰, Plav 5.9‰, Andrijevica 9.5‰).

The movement of birth and mortality rates in this period was reflected in the rates of natural increase, which were on a downward trend in the period 1961-2000 (Figure 4). Negative changes in natural increase (Figure 5) are associated with decades long decline in fertility, which manifests itself in low reproductive standards, which are accepted by an increasing number of citizens of Montenegro (Doderović & Ivanović, 2018).

Changes in the number of inhabitants during the first decades of the 21st century

The changes that took place in the second half of the 20th century continued in the first decades of the 21st century, with even greater intensity. Between 2000/21, the number of inhabitants decreased by 12,704 (Table 1). In the last two decades, this area lost an average of 604 inhabitants per year. Looking at individual municipalities, in percentage terms, the municipality of Berane lost the most inhabitants, 27.2% (9.612 inhabitants), although it cannot be said with certainty that this is relevant data, considering that until 2013, it included the municipality of Petnjica which according to the 2011. census had 5,455 inhabitants, a more realistic estimate is that Berane lost somewhere around 4,000 due to population migration, which is again a very large number. After the municipality of Berane, Andrijevica recorded the largest loss of population with 25.5% (1,511). The municipalities of Gusinje and Plav together recorded a decrease of 13.7% of inhabitants compared to 2001 (1,914). The vital index in this twenty-year period, i.e. the number of live births in relation to the number of deaths, was in a constant decline and ranged from:2002/06 - 186.1; 2006/10 -125.3; 2010/14 - 106.1; 2014/18 -99.8. In the municipality of Berane, in 2002/06 the vital index stood at (Andrijevica 79.5; Plav 154.7; 2006/10 134.4 (Andrijevica 65; Plav 132; 2010/14 104.7 (Andrijevica 70.6; Play 100); 2014/18 104.6 (Andrijevica 79.2; Play 108.1; Gusinje 67). During the first two decades of the 21st century, Gornje Polimlje has been facing complex demographic problems, which are manifested by a constant decrease in the birth rate, negative natural growth, a decrease in the number of students in primary and secondary schools, an aging population, depopulation processes, emigration of the fertile and working population.

The general birth rate from 2001-2020 in the area of Gornje Polimlje, decreased by 34.1% in percentage terms, i.e. it amounted to 16.4 ‰ in 2001, while in 2020 it amounted to 10.8‰. In the mentioned time interval, there was an evident increase in general mortality rates (Figure 6), with the general mortality rate increasing by about 26%. The increase in general mortality rates can be attributed to the demographic aging of the population in this part of Montenegro, i.e. increase

¹Andrijevica was part of the Berane municipality until the end of 1990.

of the share of old people in the total population. If we take into account the results of the natural movement of the population, it can be concluded that since 2012, there has been a constant negative natural increase, except for 2016 when it had a value of 0.6‰.

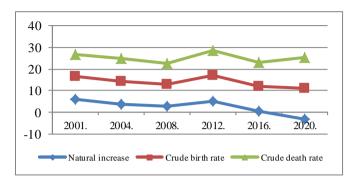


Figure 6. Natural movement of the population of Gornje Polimlje (‰) in the first decades of the 21st century (Source: figure made on the basis of vital demographic statistics available to Monstat).

Table 1. Number of inhabitants of GornjePolimlje 2000-2021.

Year	Andrijevica	Berane	Gusinje ²	Plav	In total
2000	5914	35265	-	14127	55306
2001	5856	35086	-	13983	54925
2002	5797	34908	-	13839	54544
2003	5677	34411	-	13546	53633
2004	5737	35014	-	13813	54564
2005	5576	34516	-	13606	53699
2006	5505	34364	-	13755	53623
2007	5454	34244	-	13704	53401
2008	5395	34176	-	13671	53242
2009	5333	34038	-	13608	52979
2010	5205	34019	-	13364	52588
2011	5071	33973	-	13109	52153
2012	5041	33664	-	13006	51711
2013	5018	33353	-	12874	51245
2014	4957	27907	-	12806	45670
2015	4917	27753	3949	8799	45418
2016	4942	27513	3985	8693	45133
2017	4790	27256	3984	8628	44658
2018	4707	26903	3983	8494	44087
2019	4585	26632	3998	8319	43534
2020	4532	26393	3995	8287	43207
2021	4403	26013	3995	8191	42602

^{*(}Source: Monstat)

²Gusinje was part of the municipality of Plav until 2014.

Looking at individual towns with respect to the natural movement of the population in the period from 2001 to 2020, we can notice various disproportions in their trends. The highest birth rate was recorded in the municipality of Plav in 2001 at 16 ‰, while the lowest birth rate was recorded in Gusinje in 2018 at 6.3‰. In terms of mortality, the highest value was recorded by Andrijevica with 15.5‰ in 2019, and the lowest in Plav in 2005 with 8.7‰. In the municipality of Berane, which is the largest in terms of population, the birth rate decreased by 22.3% and the mortality rate increased by 19.8% over two decades, and during this time interval, the birth rate in Andrijevica decreased by 37.3%, while the mortality rate increased by 14.8%.

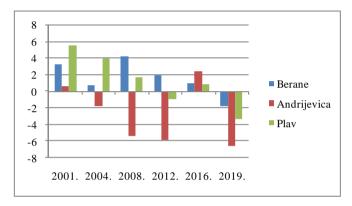


Figure 7. Rate of natural increase (‰) in the towns of Gornje Polimlje, (Source: figure based on Monstat data).

Plav is characterized by a downward trend of general birth rates amounting to 30.6%, and an increase in mortality by 38.4%. Such birth and mortality trends affected the natural increase rates, which was manifested as negative in all municipalities of Gornje Polimlje in 2019. (Figure 7).

CONCLUSION

In addition to population dynamics, the gender and age structure and its changes over time represent one of the basic characteristics of the demographic development of every country. Having this in mind, it should be pointed out that the changes in the gender and age composition of the population of Gornje Polimlje in the second half of the 20th century were influenced, primarily by the decline in fertility, but were also strongly influenced by the inherited age structure. Namely, the consequences of disturbances in the gender and age structure caused by large human losses in the First and Second World War, the sudden increase in fertility during the early 1950s, and the subsequent relatively rapid decrease in the birth rate, were the main factors that shaped the age pyramids of the population of Gornje Polimlje almost during the entire second half of the 20th century.

The projection of future demographic processes and structures has entirely practical reasons. The negative trend of natural changes in Gornje Polimlje over the first decades of the 21st century is characterized by: a drop in birth rate, total fertility rate, net reproduction and natural increase, all below the level necessary for simple renewal of population. There is an increase in the overall mortality rate of the population, with a decrease in the mortality rate of infants and children aged 1-4 years. There are ongoing negative migration flows, especially when it comes to the younger fertile population from rural to urban settlements, and from the Northern region (which includes Gornje Polimlje) to the Central and Southern regions.

REFERENCES

Bakić, R. 2005. Gornje Polimlje: priroda, stanovništvo i naselja, Geografski institute Filozofskog fakulteta; Nikšić.

Doderović, M. & Ivanović, Z. 2018. Stanovništvo Crne Gore, MATICA br. 74, pp. 121-140.

Bakić, R. 1994. Demografski razvitak sjeverne Crne Gore, UNIREKS Nikšić.

Zavod za statistiku Crne Gore, MONSTAT. Vitalna statistika 1961-2020.godine, Podgorica.