

DEMOGRAPHIC PROBLEMS OF RURAL DEVELOPMENT OF THE REGION OF FRUSKA GORA

Radovan PEJANOVIC*, Sanja DJUKIC, Zoran NJEGOVAN, Danica GLAVAS-TRBIC

¹University of Novi Sad, Faculty of Agriculture, Novi Sad, Serbia
(Corresponding author: pejanovic@polj.uns.ac.rs)

Abstract

In this paper the authors analyzed the demographic aspects of the region of Fruška gora. Region Fruška gora is one out of two mountains in the Autonomous Province of Vojvodina (Republic of Serbia). Two zones are present on the surface of 139.430,01 hectares. The central zone is the highest part of mountain, which is owned by the National Park „Fruška gora“. In a wider zone of Fruška gora are located settlements and agricultural land, with extensive and intensive use. Most of the region of Fruška gora has characteristics of rural areas, agriculture is a traditional economic activity in this area, with dominantly small farms. However, the authors indicate that the current demographic trends are limiting factor for the development of this region. The depopulation and senilization of Fruška gora's settlements are the dominant demographic trends. Therefore, the authors propose a model to overcome these limitations. In this model, the authors suggest that it is necessary to ensure economic empowerment of the region through the development of agriculture and tourism, which would be accompanied by an appropriate measures of population policy.

Keywords: *Fruška gora, rural development, demographic aspects.*

Introduction

Region of Fruška gora is the unique geographical location in the Autonomous Province of Vojvodina (Republic of Serbia) and covers an area of approximately 139,430.01 hectares. In the middle of Fruška gora on the surface of about 25,525 km² is located National Park "Fruška gora", while in the broader scope are settlements and agricultural areas. Administrative-territorial units which are the parts of this region are municipalities: Sremski Karlovci, Beočin, Irig, Inđija, Šid, Bačka Palanka, Ruma, and the cities: Novi Sad (Petrovaradin) and Sremska Mitrovica. Natural resources and cultural values are protected on whole area, On entire area the protection of natural resources and cultural values is performing, in accordance with the predetermined protection regimes. Management in this region should be guided by the principles of sustainable development. Also, the main economic activity in the region is agriculture, and to a lesser extent - tourism.

Materials and methods

Sources of data are taken from the project of the "Master Plan of Sustainable Development of Fruška gora 2012-2022.", as well as documentation from his base, and the most important is: "Spatial plan of special purpose of Fruška gora". In the paper is used an empirical method to identify specific demographic characteristics and rural development in the region of Fruška gora. Processing of the data was performed by statistical analysis.

Results and discussion

Demographic aspects in the region of Fruška gora

The total population of the region of Fruška gora has increased in the period 1991-2002. year by 15.5%. Increase of population was recorded in 42 settlements, while in the remaining 15 settlements the total population has decreased. This population growth was a result of migrations over the past two decades. However, observed municipalities and cities of Fruška gora in the period 2007-2010. year had a reduction in the number of inhabitants in most settlements, and only in Novi Sad and Sremski Karlovci had an increase in population (table 1).

Table 1. The population of the cities and municipalities of the region of Fruška gora in the period 2007-2010. year

	2007.	2008.	2009.	2010.	Increase / decrease (2010-2007.)
Bačka Palanka	58.110	57.538	57.000	56.438	-1.672
Novi Sad	319.259	323.708	327.175	330.527	11.268
Indija	48.944	48.624	48.376	48.075	-869
Irig	11.595	11.434	11.319	11.205	-390
Ruma	57.713	56.963	56.409	55.890	-1.823
Sremska Mitrovica	83.205	82.373	81.613	80.881	-2.324
Šid	36.423	35.845	35.390	34.957	-1.466
Sremski Karlovci	8.782	8.834	8.845	8.819	37
Beočin	15.704	15.672	15.682	15.633	-71

Source: author's calculations based on data from the Statistical Office of the Republic of Serbia

During the period since 1991. to 2002. year demographic trends of Fruška gora's population were marked by negative natural increase (up to 85% of the village), and in some areas (e. g. Mala Remeta) population growth was zero. This negative trend continued after 2002. year, so in most Fruška gora's settlements population growth was negative and expressed values (table 2).

Table 2. Population growth of the cities and municipalities of the region of Fruška gora in the period 2007-2010. year

	2007.	2008.	2009.	2010.
Bačka Palanka	-339	-282	-332	-352
Novi Sad	138	368	441	427
Indija	-182	-188	-230	-227
Irig	-88	-110	-100	-114
Ruma	-377	-345	-366	-408
Sremska Mitrovica	-439	-478	-385	-461
Šid	-297	-252	-247	-237
Sremski Karlovci	-18	-14	-42	-25
Beočin	-68	-37	-68	-68

Source: Statistical Office of the Republic of Serbia

The migration was the only source of population growth in the region of Fruška gora in period from 1991. to 2002. year. These migrations have occurred as a result of exile from the former Yugoslav republics (during the 90-ies in the last century). Their participation in Fruška gora's area was 23,7% (according to Census of population, 2002.), which means that the area of Vojvodina settled over 30 thousand people.¹ Making analysis by settlements, the largest number of refugees settled in Šid (about three thousand), and over two thousand settled in Petrovaradin, Sremska Kamenica, Sremski Karlovci, Novi Slankamen and Kukujevci. But even in this contingent of the population regressive trends (low reproduction) are expressed. In this region isn't possible to stop the intense process of depopulation.

Reduction of population growth has caused the intensification of population aging (senilization). The average age of the population in Fruška gora's area in 2002 was 41,6 years. Some settlements had got for the same period higher values of this ratio, e. g. Velika Remeta – 52,1 years and Slankamenački Vinogradi – 45,4 years. Observed by settlement, in 2002. in only sixteen settlements an average age was below 40 years, while in the remaining forty settlements average age exceeded this value. Parallel to this, the number of young and working-age population is decreasing, so the population of Fruška gora's area has characteristics of regressive type of population (table 3).

Table 3. Proportion (%) of different age groups in the total population, by municipalities and cities of the region of Fruška gora in 2002.

	different age groups in relation to the total population (%)		
	< 20 years	20-39 years	> 40 years
Bačka Palanka	22	27	51
Novi Sad	22	29	49
Indija	23	27	50
Irig	22	25	53
Ruma	23	27	50
Sremska Mitrovica	23	27	50
Šid	23	26	51
Sremski Karlovci	23	20	57
Beočin	24	20	56

Source: author's calculations based on data from the Statistical Office of the Republic of Serbia

Due senilisation and depopulation in the present, degradation in quality of the population could be expected in future. In this case, one of possibilities to slow down this process is the population growth by fertility increas in the region of Fruška gora. Another possibility is increasing the number of persons who immigrated in order to improve the "quality" of the population in the region of Fruška gora (younger age groups in the fertile period of his life). Also, in order to increase efficiency, it is necessary to separate the social from demographic measures, for the purpose of easier access to financial resources. According to this, the funds from the provincial budget (AP Vojvodina) should be directed every year in an appropriate amount (about 3% according to France) to encourage procreation.

In the contingent of total population in the region of Fruška gora many municipalities have a significant participation of agricultural population (except Indija, Beočin, Sremski Karlovci, Novi Sad). The largest percentage of the agricultural population in the total population have two municipalities, Irig with about 19% and Šid with 17%. The participation

¹ Đurđev, B., (2006). Izazovi depopulacije, Zbornik Matice Srpske za društvene nauke, 121/2006, Matica Srpska, Novi Sad, str. 11-17.

of active agricultural population in cities and municipalities in the region of Fruška gora is in the range from 54% to 64%, indicating that the population is predominantly oriented towards agriculture as a major economic activity (table 4. and table 5).

Table 4. The participation of the agricultural population in the total population in the municipalities and cities in the region of Fruška gora for 2002. year

	In total	Agricultural	Agricultural in total (%)
Bačka Palanka	60.966	6.461	10,60
Novi Sad	299.294	5.760	1,92
Indija	49.609	4.413	8,90
Irig	12.329	2.411	19,56
Ruma	60.006	6.992	11,65
Sremska Mitrovica	85.902	11.939	13,90
Šid	38.973	6.683	17,15
Sremski Karlovci	8.839	217	2,46
Beočin	16.086	1.065	6,62

Source: author's calculations based on data from the Statistical Office of the Republic of Serbia

Table 5. The participation of active and supported agricultural population in the total agricultural population in the municipalities and cities in the region of Fruška gora for 2002. year

	In total agriculture population (%)	
	Active	Supported
Bačka Palanka	59,82	40,18
Novi Sad	57,53	42,47
Indija	54,70	45,30
Irig	56,86	43,14
Ruma	55,69	44,31
Sremska Mitrovica	57,61	42,39
Šid	58,16	41,84
Sremski Karlovci	58,06	41,94
Beočin	64,41	35,59

Source: author's calculations based on data from the Statistical Office of the Republic of Serbia

Aspects of rural development and multifunctional agriculture in the region of Fruška gora

Region of Fruška gora is a dominantly rural area. But some municipalities like Sremski Karlovci, Indija, and the city Novi Sad have the characteristics of urban municipalities. Other municipalities/cities (Sremska Mitrovica, Beočin, Ruma, Bačka Palanka, Šid and Irig) are a group of settlements with rural type.² Taking in mind the position of Irig in the area of Fruška gora, it can be concluded that it is predominantly rural settlement. Agriculture is the most important economic activity in the region of Fruška gora. The potential for crop production in the region of Fruška gora is concentrated in Sremska Mitrovica, Novi Sad, Bačka Palanka, Indija and Irig. Spaces for efficient livestock production are concentrated in Sremska Mitrovica and Novi Sad. In addition to the unfavorable demographic development, as the second limiting factor in the development of the region of Fruška gora is the lack of built and maintained infrastructure.³

² Njegovan, Z., Pejanović, R., (2009). Ruralna regionalizacija AP Vojvodine, Poljoprivredni fakultet, Novi Sad, 2009.

³ Pejanović, R., Njegovan, Z., (2011). Ruralni i lokalni ekonomski razvoj AP Vojvodine, monografija, Poljoprivredni fakultet, Novi Sad.

Region of Fruška gora has specific geographic, climatic and agro-ecological conditions and a suitable land for the diverse agricultural production (crop and livestock production). In the present circumstances, multifunctional agriculture is performed mostly on private land (the dominant small and medium family farms). According to this, multifunctional agriculture of Fruška gora is characterized by⁴:

- favorable growing conditions and the existence of the good traditions in the production of fruits, grapes, vegetables and livestock;
- the presence of reservoirs which are important for irrigation, fishery development and sport-fishing tourism;
- proximity of major consumption centers and tourist destinations, which is an important factor of demand of agricultural products;
- favorable conditions for the production of honey plants and development of beekeeping;
- the presence of significant forest complexes and favorable conditions for the development of hunting;
- favorable conditions for the production and collection of medicinal and aromatic plants.

Despite these advantages the region has insufficient use of agricultural potential. For example, the areas of orchards and vineyards are insufficient and with unfavorable age structure. Vegetable production (as fruticulture and viticulture) despite of significant free land for increase of production isn't enough developed. Livestock production of Fruška gora has a good tradition, but in recent decades this branch of agriculture had a drastic decline in the development, both within the Republic of Serbia and the region of Fruška gora. Namely, agricultural enterprises and farms in the region of Fruška gora were together with plant production, and the forage base was provided from its own resources, ensuring organic fertilizers for crop production. Also, in the region of Fruška gora there aren't enough processing and storage capacities even for the current needs of agricultural production. Bearing in mind that the current trends in food production turned more towards to the aspect of health-safety food, the region has a significant preconditions for organic food production. Nevertheless, this model of agricultural production hasn't developed significantly because of: insufficient education and information of producers and qualified staff on environmental production systems, and inadequate level of incentives and subsidies for organic farming, etc.

Tourism, besides agriculture, is another important branch of the economy in rural areas of Fruška gora. These potentials are not used enough, and with their development it could be achieved several important goals, such as increase in quality of life of local population, increase of investment, job creation and so on. Namely, in this region there is a considerable number of tourist attractions that could be base of the following types of tourism: ecotourism, geotourism, rural tourism, camping tourism, wine tourism, manifestation tourism, fishing tourism, hunting tourism, ethno-tourism, health-recreation tourism and spa tourism.⁵

Conclusion

Region of Fruška gora has a significant development potential, but they are not used enough. It is a rural area, where agriculture is the main economic activity and tourism is the second most important branch of the economy. But, the demographic aspect of the development of the region of Fruška gora is unfavorable. In fact, this region is characterized

⁴ "Master plan održivog razvoja Fruške gore 2012-2022.", (2011). Naučno stručna studija, (koordinatori: Pejanović, R., Orlović, S., Lazić, L., Panjković, B.), Univerzitet u Novom Sadu, Novi Sad.

⁵ Prostorni plan područja posebne namene Fruške gore do 2022. godine (2004). „Službeni list AP Vojvodine”, broj 18/04, Novi Sad.

by two negative demographic phenomena: population decline and increase of senilization. These processes are dominant in those municipalities that are predominantly rural type. According to this, a considerable budgetary resources are necessary, which would be in the function of the population policy, with the aim of fixing the negative demographic "images" of Fruška gora.

At the same time with these measures, it is necessary to ensure the economic strengthening of the region in order to create a favorable environment for the life and work, especially for young people. Besides the improvement of primary agricultural production (fruticulture, viticulture, cultivation of vegetables and livestock production) it is necessary to invest in other development resources (hunting, fishing, water management, beekeeping, farming of medicinal, aromatic herbs and honey, etc.). Also, it is necessary to invest in the infrastructure in the region of Fruška gora. Development of the primary sector and infrastructure in the region of Fruška gora opens a new opportunities in the processing of agricultural products, tourism (ethno village, wine, religious and other forms of tourism), as well as the development of the service system, which ultimately provides the basis for greater diversification of economic activities in rural areas of Fruška gora.

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