RURAL FEATURES OF THE BANJA LUKA REGION IN THE FUNCTION OF RURAL DEVELOPMENT

DOI: http://dx.doi.org/10.18509/GBP.2019.37 UDC: 332.1:911.373(497.6)

Tanja Mišlicki Tomić Vesna Rajcevic

University of Banja Luka, Faculty of Natural Sciences and Mathematics, Department of Geography, **Republic of Srpska, Bosnia and Herzegovina**

ABSTRACT

In modern social processes, development in rural areas of Banja Luka region is faced with a number of demographic and socio-economic problems. Deteriorating socio-economic indicators make these areas undesirable for life and work. Weak employment opportunities and, at the same time, poor traffic integration of rural areas in the region have been causing negative development processes for years.

The sustainability of rural areas is a key component of development, leading to achievement of continuous and balanced development, which equally combines all the elements of integral development. In this regard, and in order to improve living and working conditions in rural areas of the region, this paper will examine the rural features of the region and conditionally defined rural development priorities.

Key words: Banja Luka region, regional development, rural development, rural areas

INTRODUCTION

Banja Luka region is conditionally differentiated regional system in the north-western part of the Republic of Srpska, which, in administrative and territorial sense, combines two urban areas (Banja Luka and Prijedor) and 19 municipalities.

Regional system includes area of 8954.3 km² in which, according to the census from the year 2013, there are 527 840 inhabitants, or 45% of the population of the Republic of Srpska.

According to nodal-functional regionalization of the Republic of Srpska, territoriality of the Banja Luka region is determined by the functions and gravity range of the main development centre of the region – Banja Luka [1].

The region is characterized by population decline, negative natural increase and unfavourable age structure (about 25% of the population is older than 60 years).

The region is developmentally uneven area with significant structural disorders, more than 50% of the population and about 60% of agricultural activities are concentrated in Banja Luka and Prijedor, which indicates to developmental differences within the region.

NATURAL AND GEOGRAPHIC FEATURES OF THE REGION IN THE FUNCTION OF RURAL DEVELOPMENT

The total development of agriculture is mostly determined by the structure of the relief, especially by hypsometric, and climatic, hydrological and pedological conditions, also including the limitations.

In natural and geographic sense, Banja Luka region represents transitional area between the Pannonian Plain in the north and mountainous-basin area in the south. The region extends in the north from the lowland areas in the alluvial plains of the rivers Sava, Una and Vrbas, through hilly-mountainous areas in the municipalities of Ribnik, Kneževo, Istočni Drvar, Šipovo and Mrkonjić Grad. The appropriate altitude, which ranges up to 200 m in the plain area (Dubička ravan, Lijevče polje), and up to 978 m on the mountain Kozara (the municipality of Prijedor), 1339 m on the mountain Čemernica (the municipality of Kneževo), and up to 1907 m on the tops of the mountain Vitorog (the municipality of Šipovo), as well as the moderate continental climate, determined the manner of use and the basic types of soil.

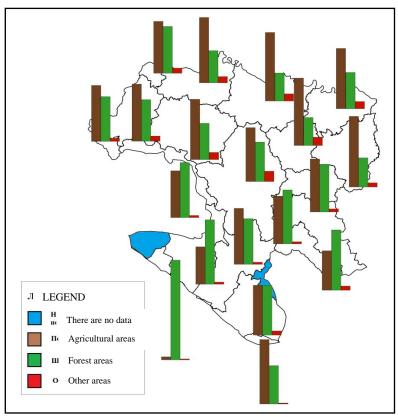


Figure 1. Banja Luka region – the use of soil *Source:* [2]

In consideration of land use and basic functions of space, agricultural structural type is dominant in the region, in whole, as well as in more than half of the municipalities, with share of forest land from 27 to 40% of the total area. The exceptions are municipalities of Kostajnica, Krupa na Uni, Oštra Luka, Čelinac, Kneževo, Mrkonjić Grad and Šipovo, which have equal share of forest and agricultural land and they belong to the mixed type. Forest structural type is dominant in three municipalities: Kotor Varoš, Ribnik and Istočni Drvar, with the share of agricultural land from 3.5 to 38%. Of the total area of the region (8954.3 km²), about 54% is agricultural land, which is for a few percent more than the state average. In the northern part of the region, in predominantly lowland municipalities of Gradiška, Kozarska Dubica, Laktaši, Prnjavor, approximately 70% of the municipality is agricultural land.

In the agroecological zoning of the Republic of Srpska, about 20-25% of Banja Luka region is arable area, 40-45% is fruit and livestock area and about 30-35% is livestock and forest area [3].

The representation of forest in the region corresponds to the average of the Republic of Srpska. The largest forest areas, and also the wood stocks, are in the parts of the municipalities of Petrovac and Istočni Drvar, and areas of the municipalities of Ribnik, Mrkonjić grad, Šipovo, and in the area of the municipalities of Kneževo, Kotor Varoš, Teslić, Banja Luka and Čelinac [4].

SOCIAL AND GEOGRAPHIC FEATURES OF THE REGION IN THE FUNCTION OF RURAL DEVELOPMENT

At the region level, number of inhabitants decreased in the last two census periods (growth index for 2013/91 amounts 75.7). Number of inhabitants decreased in two city areas (Banja Luka - growth index 92.0 and Prijedor - growth index 71.8) and in 84% of municipalities. Population density in the border municipalities (Krupa na Uni, Oštra Luka, Jezero, Kupres, Petrobvac) is critical.

Table 1. Banja Luka Region – municipalities according to the size and population in 1991 and 2013

Tuble It Bunje	Area		Population						
Banja Luka region	Km ²	region %	2013	region %	whole RS %	1991	Growth index 13/91	Inhab. /km ² 2013	
Total	8954.3	100	527.840	100	100	697.235	75.7	58.9	
Banja Luka	1238.89	13.84	180053	34.11	15.38	195692	92.0	145.3	
Gradiška	761.65	8.51	49196	9.32	4.20	59974	82.0	64.5	
Prijedor	834.07	9.31	80916	15.33	6.91	112543	71.8	97.0	
Koz.Dubica	499.35	5.58	20681	3.92	1.77	31606	65.4	41.4	
Kostajnica	85.86	0.96	5645	1.07	0.48	2463	229.1	65.7	
Novi Grad	469.67	5.24	25240	4.78	2.16	41665	60.5	53.7	
Krupa na Uni	93.18	1.05	1560	0.30	0.13	7683	20.3	16.7	
Oštra Luka	206.64	2.31	2705	0.51	0.23	9178	29.4	13.0	
Srbac	452.64	5.05	16933	3.21	1.45	21840	77.5	37.4	
Laktaši	388.34	4.34	34210	6.48	2.92	29832	114.6	95.8	
Prnjavor	629.99	7.03	34357	6.51	2.94	47055	73.0	54.5	
Čelinac	361.80	4.04	15117	2.86	1.29	18713	80.7	41.8	
Kotor Varoš	557.34	6.22	18361	3.48	1.57	36853	49.8	32.9	
Kneževo	325.99	3.64	9368	1.77	0.8	19418	48.2	28.7	
Mrkonjić Grad	669.73	7.48	15926	3.02	1.36	27395	58.1	23.7	
Jezero	63.17	0.71	1039	0.2	0.09	6230	16.6	16.4	
Šipovo	550.20	6.14	9969	1.89	0.85	15579	63.9	18.1	
Kupres	44.62	0.50	293	0.06	0.03	1451	20.1	6.5	
Ribnik	499.92	5.58	5851	1.11	0.5	10779	54.2	11.7	
Petrovac	146.10	1.63	354	0.07	0.03	1225	28.8	2.4	
Istočni Drvar	75.24	0.84	66	0.01	0	61	108.1	0.8	

Source:[5], [6].

The municipalities which recorded a decrease of population in most of the settlements are: Gradiška in 70%, Prijedor in 90%, Prnjavor in 85% and Kozarska Dubica in 98%. The age structure of the population of the region is unfavourable – almost 25% of population of the region is older than 60 years of age (average on the level of RS amounts 24.5%) [6].

All municipalities, except for the urban area of Banja Luka (0.4%), record a negative natural increase, most of them records larger negative natural increase than the state average (-3.8%). Aging index at the level of the region is equal to the republic and it

amounts 1.22, on the basis of which it can be concluded that this region and entire Republic is in the stage of "complete aging of the population".

The urban population of Banja Luka is more vital, with aging index of 1.03%. The situation is extremely alarming in other rural municipalities in the region which aging index is higher than 1.5 and it is also higher than the national average [6].

Number of households, at the level of the region, decreased in the last two census periods (growth index in 2013/91 amounts 95.3). Border municipalities (Petrovac, Kupres, Jezero and Oštra Luka) have the highest decrease in the number of households. Decrease in the number of households is also observed in the urban area of Prijedor (growth index in 2013/91 amounts 89.0) [5],[8].

Population activities, observed at the level of regions, cities and municipalities, indicate medium conditionally satisfactory category of activities, with the share of 25-50% of active population of the total population. The highest number of active population of the region, about 60%, is located in Banja Luka, Prijedor and Laktaši [7],[8].

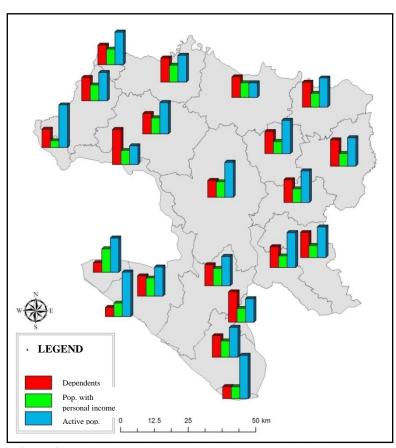


Figure 2. Banja Luka region – social and economical indicators, 2015 Source: [7],[8].

Approximately (128 782) or 24% of employed population, at the level of the region, performed particular profession. *Figure 3* shows activity structure of active population and their spatial distribution in relation to municipalities.

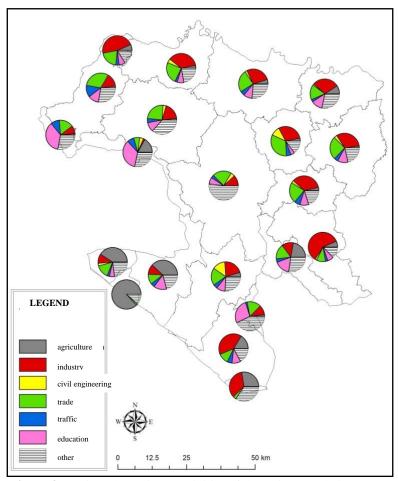


Figure 3. Banja Luka region – activities of the active population, 2013 *Source:* [7],[8].

The region has the following structural features: (a) marked territorial disproportion between the urban areas and municipalities, (b) marked differences in social and economic features between the urban areas and municipalities, (c)significant share of employed persons in industry (about 35%) in the municipalities of Kotor Varoš, Srbac, Laktaši, Gradiška and Kozarska Dubica, and in trade (about 25%) in the municipalities of Laktaši, Novi Grad, Prijedor, Prnjavor and Gradiška, (d) developed activity structure and higher share of social activities in urban areas Banja Luka and Prijedor, (e) significant share of employed persons in the primary sector (10-30%) in the municipalities of Ribnik, Kupres, Kneževo, Oštra Luka, Srbac and Šipovo.

The ratio of the employed population, as well as the share of unemployed population (in 2013, number of the unemployed persons at the regional level amounted 54 278, of which 27 311 or 50.3% in urban areas of Banja Luka and Prijedor), indicate to: (a) approximately the same employment rate of the region in relation to the national level, (b) lack of jobs, (c) marked differences within the regional framework, (g) lower activity in the municipalities (Jezero, Kotor Varoš, Šipovo, Oštra Luka, Ribnik) and low employment in the municipalities (Kupres, jezero, Krupa na Uni, Istočni Drvar, Petrovac) [8].

SPATIAL AND ORGANIZATIONAL FEATURES OF THE REGION IN THE FUNCTION OF RURAL DEVELOPMENT

In the last census periods (1991/2013), changes in population trends indicate negative demographic processes, characterized by a marked depopulation.

There are three categories of population density in the region: (1) *moderately high population density*, over 100 inhabitants/km² (Banja Luka), (2) *medium population density*, from 50 to 100 inhabitants/km² (Prijedor, Prnjavor, Laktaši, Novi Grad, Kostajnica and Gradiška) and (3) *low population density*, less than 50 inhabitants/km² (Kozarska Dubica, Krupa na Uni, Oštra Luka, Crbac, Čelinac, Kotor Varoš, Kneževo, Mrkonjić Grad, Jezero, Šipovo, Kupres, Ribnik, Petrovac and Istočni Drvar) (*Table 1*). Urban area of Banja Luka has the highest population density, 145 inhabitants/km², while the municipalities in southern and southwestern part of the region have the lowest population density (Šipovo, Jezero, Krupa na Uni, Oštra Luka, Ribnik, Petrovac, Istočni Drvar), with population density from 0.8 to 18 inhabitants/km². The municipalities Kozarska Dubica, Srbac, Čelinac, Kotor Varoš, Kneževo and Mrkonjić Grad are below the national average of population density (47 inhabitants/km²), but they are in a slightly better position.

Relation between inhabitants of urban areas of Banja Luka and Prijedor and rural settlements of the region indicate to higher share of inhabitants in rural settlements. On the level of the region, the population of urban areas is represented with 49%, while population of rural areas is represented with 51%. In the last census periods (1991/2013), this ratio is changing in favour of the population of urban areas.

The network of settlements consists of 693 settlements, two urban settlements and other settlements with rural features. In the region, 15 settlements and four municipal areas (Krupa na Uni, Istočni Drvar, Petrovac and Kupres) have developed administrative function.

On the one hand, dominance of the City of Banja Luka in the spatial distribution and population size, compared to other settlements of the region, indicates to development imbalance in the network of settlements (*Table 2*).

Banja Luka region is characterised by the concentrated density and lower dispersion of the settlements in the area. Observed through municipalities, there are three categories. The first, which marks *higher density*, and thus higher dispersion of settlements in the region, is within the framework from 12 to 14 S/km², and it is in the municipalities of Jezero, Kozarska Dubica, Krupa na Uni and Kostajnica. Second category of *moderate density* from 9 to 12 S/km², with moderate ispersion of settlements in the area, is in the municipalities of Laktaši, Oštra Luka, Novi Grad and Prnjavor. The third category of *concentrated density*, of 9 S/km², is characteristic for urban areas of Banja Luka and Prijedor and the largest number of municipalities in the region (Gradiška, Srbac, Čelinac, Kotor Varoš, Kneževo, Mrkonjić Grad, Šipovo, Kupres, Ribnik, Petrovac and Istočni Drvar) (*Table* 2).

The average territorial size of the settlement at the regional level amounts 12.9 km², which corresponds to the category of medium and small settlements and represents a limiting factor in the development, especially in comparison with low population density and spatial distribution of settlements. Prnjavor, Oštra Luka, Krupa na Uni, Kostajnica and Kozarska Dubica belong to the category of settlement size which changes from 7 to 10 km². Settlements Laktaši, Srbac, Novi Grad, Prijedor and Gradiška belong to the category of small settlements from 10 to 12 km², while other settlements are in the category of medium to small settlements, more than 12 km².

Table 2. Density of the network of settlements and population size of settlements for year 2013

Banja Luka region	Number of settlements	Density of settlements	Settlements network density S/100 km ²	Settlement territorial size km ²	Settlement population size Number of inhabitants
Total	693	13	8.89	13.65	531.5
Banja Luka	52	22.9	4.36	23.82	3334
Gradiška	68	11.2	8.98	11.20	723
Prijedor	71	11.7	8.51	11.75	1139
Koz. Dubica	61	8.1	12.21	8.19	339
Kostajnica	12	7.1	13.98	7.16	470
Novi Grad	48	10.3	9.66	9.78	525
Krupa na Uni	11	7.7	12.87	8.47	130
Oštra Luka	21	8.6	11.61	9.84	113
Srbac	39	11.6	8.61	11.61	434
Laktaši	37	10.4	9.53	10.49	924
Prnjavor	63	9.9	10.01	9.99	545
Čelinac	30	12.0	8.29	12.06	504
Kotor Varoš	40	12.9	7.72	13.93	427
Kneževo	20	16.3	6.13	16.30	468
Mrkonjić Grad	37	17.6	5.67	18.10	419
Jezero	10	5.7	17.42	6.31	94
Šipovo	41	11.9	8.36	13.42	217
Kupres	3	11.1	8.96	14.80	73
Ribnik	24	17.2	5.80	20.83	202
Petrovac	3	24.3	4.11	48.7	59
Istočni Drvar	2	25.0	3.98	-	22

Source: [6]

In the analysis of rural areas, category of small villages is the most represented at the level of the region (101-500 inhabitants)-337, and category of too small villages (1-100 inhabitants)-162, medium villages (501-1000 inhabitants)-117, medium villages (1001-2000)-44 and large villages (2001-3000)-17 and villages with over 3000 inhabitants-14. The size classification of rural settlements is presented in the following tables, and their spatial distribution in (*Figure 4*).

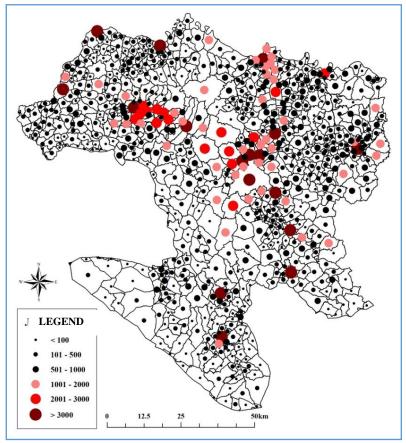


Figure 4: Banja Luka region – spatial distribution of different size categories of settlements for the year 2013 Source: [6]

On the basis of the above mentioned analysis, it is possible to single out some of the basic features of rural areas in Banja Luka region:

- About half of the population of the region and about 60% of agricultural activities is concentrated in urban areas of the region (Banja Luka, Prijedor).
- Agriculture is dominant basis of the economy in rural areas.
- Demographic trends are very unfavourable population decline, negative natural increase and unfavourable aging structure are basic features of rural areas, particularly in mountainous areas of the region. Population of rural areas is in the stage of complete aging of the population (aging index higher than 1.5).
- Population density indicates a different intensity of use of the area. Urban and peri urban areas in the northern part of the region are the most densely inhabited, Banja Luka (143 inhabitants/km²), Prijedor (117 inhabitants/km²) and Laktaši (94 inhabitants/km²), while municipalities in the southern part of the region are extremely sparsely populated: Istočni Drvar, Petrovac, Kupres, Ribnik and Šipovo, with population density lower than (20 inhabitants/km²).
- Very small territorial size of rural settlements (2-10 km²), in the southern part of the region (Jezero, Šipovo, Kupres, Ribnik, Petrovac, Istočni Drvar, Oštra Luka) and small population size represent unfavourable and limiting factors of development.

- Spatial distribution of different size categories of villages indicates to unfavourable development trends in the network of rural settlements at the level of municipalities and region (eg. Kozarska Dubica, Kostajnica, Novi Grad, Prnjavor, Čelinac, Kotor Varoš, Kneževo, Mrkonjić Grad, Šipovo and Srbac have only one settlement with more than 2000 inhabitants, while Gradiška has two and Laktaši three settlements).
- All larger rural settlements are concentrated near the urban areas or they have been developing near the important traffic communication.
- Most of the villages of medium size (1000-2000 inhabitants) are concentrated in the northern part of the region, in peripannonian region, on the banks of the rivers Sava and Vrbas. Hilly and mountainous areas, in southern parts of the region, are characteristic by very small villages and medium-sized villages (up to 500 inhabitants).

In relation to the structure of Banja Luka region, and the key elements of sustainability, development of rural areas appears as one of the developmental priorities. Developmental priorities in the rural areas of the region and possible areas of action are presented in (*Figure 5*).

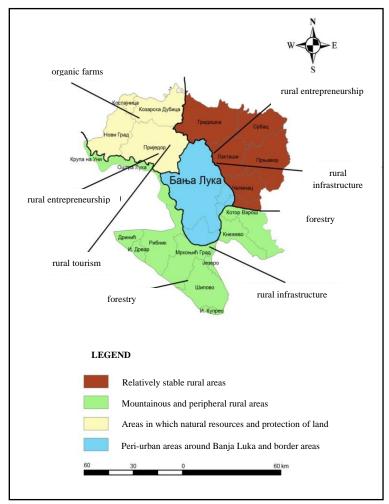


Figure 5. Banja Luka region – typology of rural areas and possible areas of action

CONCLUSION

The social need for development of appropriate planning activities, for the purpose of regulating and directing the rural and regional development, indicates to the need for more detailed analysis of the situation and development opportunities in rural areas of Banja Luka region, as preparatory activities for drafting development programs of revitalization of rural areas.

REFERENCES

- [1] Gnjato R. National-Functional Regionalization of the Republic of Srpska (Narodno-funkcionalna regionalizacija Republike Srpske), Gazette, book 2, Geographical Society of the Republic of Srpska, Banja Luka, page 7-8,1997.
- [2] Register of cadastral municipalities of the Republic of Srpska, Banja Luka, 2015.
- [3] Institute of Agrochemistry and Agroecology Banja Luka, The Basis of Protection, Use and Regulation of Agricultural Land of the Republic of Srpska as a Component of the Planning Process of Land Use, Banja Luka, page 57, 2009.
- [4] Spatial Plan of the Republic of Srpska until 2025, Ministry of Physical Planning, Civil Engineering and Ecology, Banja Luka, 2013.
- [5] Census of the Population, Households, Apartments and Farms 1991. (Popis stanovništva, domaćinstava, stanova i poljoprivrednih gazdinstava 1991), Households per settlements, FBiH Institute of Statistics, Sarajevo, 1999.
- [6] Results of the Census 2013, Population by age and gender on five-year basis (Stanovništvo prema starosti i polu po petogodištima), Cities/municipalities, settlements, Institute of Statistics of the Republic of Srpska, Banja Luka, 2017.
- [7] Results of the Census 2013, Households Engaged in Agricultural Activity (Domaćinstva koja obavljaju poljoprivrednu aktivnost), Cities/municipalities, Institute of Statistics of the Republic of Srpska, Banja Luka, 2017.
- [8] Results of the Census 2013 Population, Households, Review by Municipalities and Cities, Employment, Unemployment and Salary (Stanovništvo, domaćinstva, pregled po opštinama i gradovima, zaposlenost, nezaposlenost i plata,) Statistical Yearbook 2016, Institute of Statistics of the Republic of Srpska, Banja Luka, 2017.
- [9] Strategy of Agricultural Development of the Republic of Srpska until 2015, Ministry of Agriculture, Forestry and Water Management, Banja Luka, 2006.
- [10] Strategic Plan for the Development of Agriculture and Rural Areas of the Republic of Srpska 2016-2020, Ministry of Agriculture, Forestry and Water Management, Banja Luka, 2015.