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OUTDOOR AMENITIES AND RURAL POPULATION IN SERBIA

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***Abstract:** The quality of overall environment is considered as one of the key elements for smart, sustainable and inclusive growth of rural areas. Therefore, the amenities composite index can be used in the mapping of rural areas. Furthermore, the particular attention should be paid to the analysis of connections between the concept of outdoor amenities and distribution of rural population. The overall importance of the concept of outdoor amenities for socio-economic development of rural areas has been widely explored. The outdoor amenities are considered as extremely important for rural livelihoods, which is particularly gained in importance during the world health crisis caused by COVID19. Rural areas are more and more considered as preferable for so-called creative class residents all over the world. These areas are seen as the dynamic territories which can create the environment for growth and development using a novel combination of population, knowledge and entrepreneurship. Is it possible in Serbia as well? The rural areas were traditionally neglected during the "socialist era" in our country. In order to answer the research question, the basic research objectives of the paper are connected with the identification of the core components of amenities in the rural context as well as with methods for measuring rural outdoor amenities. The main research question is defined as follows: How do rural outdoor amenities affect the decisions of the population and employers regarding the location for living, recreation and conducting business in Serbia? The paper provides an overview of the composite indexes developed in classification of rural areas. The relative amenity value is estimated by using econometric methods for cross-sectional data. The exploration of findings is particularly important for the further definition of rural policy measures in Serbia.*

***Keywords:** outdoor amenities, amenity value, composite index, rural areas, rural population.*

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1. Introduction

These Natural benefits and other qualities of a rural physical and social environment that improve living conditions have been identified as key push factors for the successful transformation of rural economy and the growth of rural population, income and employment. Their importance has been additionally heightened during the COVID-19 pandemic. The demand for living and working in rural areas with rich outdoor amenities has significantly risen during the pandemic. Our paper has two aims. The first aim is to highlight the importance of the concept of amenities for socio-economic rural growth and development, with special emphasis on the specific outdoor amenities. The second aim is to apply the concept of outdoor amenities on the example of rural areas in Serbia by introducing a set of measures of outdoor amenities, as well as the methodology which will enable the mapping of rural Serbia from the standpoint of the available outdoor amenities.

The basic research objectives of our paper are connected with the identification of the core components that characterize amenities in the rural context of Serbia and the methods that can be used for modeling and measuring outdoor amenities of rural areas of Serbia. The paper summarizes work that was carried out over the course of several years. We developed and validated a set of measures of outdoor amenities and two summary amenities indexes as a part of research of complex problems of rural economic growth and development of Serbia, with a special emphasis on the link between the outdoor amenities, human capital and entrepreneurship.

The paper is divided into five parts. The first part provides a brief background on the role of the concept of amenities for socio-economic rural development and an overview of the composite indexes developed so far for modeling and measuring outdoor amenities. The second part covers the measurement of outdoor amenities and provides an explanation of the methodology used to gauge the relative amenity value of each rural area in Serbia and to analyze the impact of various outdoor amenities on the local amenity value. In the third part, the results of the ordinary least squares (OLS) regression analysis of the amenity value as a dependent variable, with different outdoor amenities measures as independent variables, is presented. In the fourth part, the implemented methodology for classifying rural areas in Serbia with respect to their specific outdoor amenities is shown. The last part is the conclusion, which provides recommendations for the socio-economic rural development with respect to specific characteristics of the rural environment.

2. Literature review

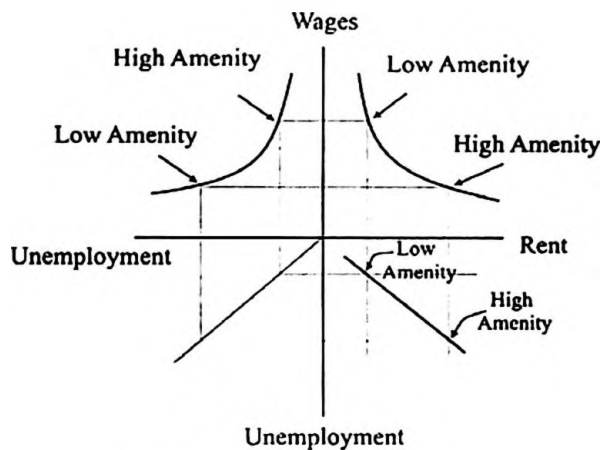
Outdoor amenities are a segment of local economy which has an increasingly important role for modern rural economic growth and development. In the literature, outdoor amenities are recognized as an important aspect of the concept of rural amenities, which include natural and recreational amenities. Natural amenities refer to the physical rural environment, while the role of recreation amenities (also defined in the literature as built amenities) is to add value to the natural amenities and provide an opportunity for different recreational activities. The outdoor amenities, as an approximation of the quality of life in rural context, are also recognized as the key drivers of the population growth and the growth of local employment and entrepreneurial activities. Deller et al. (2001) defined outdoor amenities as the specific qualities of local physical environment that make a

Outdoor amenities and rural population in Serbia

particular rural area attractive for living and for recreational and retirement activities. According to Pezzini and Wojan (2002), outdoor amenities represent the potential value of the non-production aspects of the rural environment. In the developed economies, the reverse migration patterns, from urban to rural areas, are largely shaped by these site-specific characteristics of physical and social rural environment. In these countries, outdoor amenities have been successfully used for the development of tourism-based industries and service and retail industries.

Figure 1 presents the extended Roback-Blanchflower-Oswald model, based on the analysis of the interdependence between the level of amenities, wages, rents and unemployment rate.

Figure 1. Map of rural Serbia according to the outdoor amenities indexes



Source: Deller, 2009, pp. 143

In order to provide a theoretical explanation about the significant role of the concept of amenities for the socio-economic well-being of rural areas, Deller (2009) has extended the work of Roback (1982, 1988) and of Blanchflower and Oswald (1995). It is assumed that the amenity value of rural areas is capitalized in the level of wages and rents. The quadrant wages-rent in Figure 1 describes the hypothesis defined by Roback (1982, 1988): the average income is lower in high amenity areas, while it is higher in the low amenity areas. Potential residents are willing to accept lower wages and higher rents in order to live and work in high amenity areas. On the contrary, low amenity areas are characterized by higher wages and lower rents (Deller et al., 2001; Deller, 2009). In addition, high amenity areas are also characterized by a higher unemployment rate compared to low amenity areas. According to Blanchflower and Oswald (1995), Deller and Tsai (1999) and Deller (2009): if workers place high value on a possibility to enjoy different amenities, then they are willing to stay in a high amenity area despite the risk of being unemployed for a period of time. The low amenity areas are characterized by higher wages, lower rents and lower unemployment rates compared to high amenity areas.

Various empirical research has included multiple indicators of outdoor amenities in the model of rural economic growth observed through growth of population, employment and entrepreneurial activity (McGranahan, 1999; Shumway & Otterstrom, 2001; Henderson

& McDaniel, 2005; McGranahan and Wojan, 2007; McGranahan et al., 2011). Outdoor amenities are identified as a comparative advantage of rural areas that can induce transformation of the rural economy and ensure high rates of population and economic growth. In the USA and EU countries, rural areas with high outdoor amenities have experienced economic growth due to successful demographic, economic and social transformation. These empirical studies have managed to solve the problem of empirical modelling and measuring of rural amenities by using multiple indicators of outdoor amenities and grouping them into a corresponding composite index, based on which the distribution of specific amenities across rural areas can be analysed and outdoor amenities can be included in the model of rural economic growth. Rural amenity is best understood as a complex rather than a single indicator (Argent et al., 2007, pp. 218).

The objective of the empirical research of McGranahan (1999) was to identify the aspects of natural amenities related to population and employment change of rural areas in the USA during the period of 25 years. The advantage of the formed natural amenities index is reflected in the possibility to summarize different natural amenities indicators in a single scale in order to perceive the level of natural amenities across rural areas and to test the link between the natural amenities and population and employment change. Six used measures of natural amenities include: warm winter (January temperature), winter sun (January days of sun), temperature summer (low winter-summer temperature gap), summer humidity (low average July humidity), topographic variation (topography scale) and water area (as a proportion of the total area). According to empirical results, climate, topography and water area are highly related to the population and employment change in the USA. Argent et al. (2007) identified seven indicators of outdoor amenities (annual rainfall, ruggedness of terrain and altitude, remoteness, duration of settlement, irrigation water resources, employment in recreation and related services and beach distance) that significantly gave rise to rural amenity and were recognized as the features of the Australian rural milieu attractive to the people moving into rural areas. In his empirical research of rural migration and change in job, McGranahan (2008) used multiple indicators of the natural landscape amenities: forest, cropland, water, topographic variation and population density. In order to develop a classification of rural areas in the USA from the standpoint of outdoor amenities, McGranahan et al. (2011) used eight indicators of outdoor amenities (January temperature, January days of sun, winter-summer temperature gap, July humidity, topography, water area, land in forest and employment in hotels and restaurants) and grouped them into one statistical measure by developing a composite index, named the outdoor amenities index. The results of empirical research confirm the hypothesis that local outdoor amenities are highly related to the economic growth. They induce economic growth by attracting new rural residents, out of whom highly educated individuals who perform creative occupations (called the creative class in the literature) make the most significant portion. These individuals prefer rural areas rich in outdoor amenities for life, work and recreation.

3. Data and Methodology

Rural areas of Serbia are faced with demographic, structural and economic problems. The age structure of the rural population is unfavourable and rural exodus is pronounced as a consequence of the negative natural increase and abandonment of rural areas. Many rural areas are facing structural problems of food and labour market, the low

Outdoor amenities and rural population in Serbia

quality of public services and the absence of relevant institutions and their adequate support (Stojanović & Dragutinović-Mitrović, 2012, Stojanović et al., 2017, Josipović, 2018; Josipović & Kokeza, 2021). They are also characterized by low gross value added per capita, higher employment rates in the primary and quaternary sectors, lower employment rates in the secondary and tertiary sectors, and higher unemployment rates. However, the situation is much better when looking at the indicators related to natural conditions and environmental protection. Rich natural amenities are reflected in moderate continental climate, rich water resources (rivers, lakes, springs etc.), significant forest resources (the most common species being beech and oak) and diverse biodiversity. When it comes to richness of its flora, Serbia is potentially one of the global centres of plant diversity, while the mountainous area of Serbia represents one of the six centres of European biodiversity (Strategy of agriculture and rural development of the Republic of Serbia for the period 2014-2024). Also, rural areas have all the prerequisites for the development of various forms of tourism such as: eco-tourism, winter tourism, health tourism, hunting tourism etc.

Since outdoor amenities are distributed unevenly across rural Serbia, the basic research objectives of our paper are connected with the identification of the environmental attributes as core components that characterize amenities in the rural context and methods that can be used for modelling, measuring and mapping rural outdoor amenities in Serbia. In empirical research we used five measures of natural and three measures of recreational (built) amenities in order to approximately measure and model rural amenities in Serbia. Indicators of outdoor amenities were selected on the basis of the relevant literature dealing with the analysis of the factors that shape the migratory movements of the population from urban to rural areas and data availability across the entire study area. The survey covered 24 rural areas in Serbia. Rural areas in the territory of Kosovo and Metohija were not included due to the lack of data.

We assume that climate, topography, forest and water resources represent natural aspects of the attractiveness of the rural physical environment. We used two measures of climate, average temperature in winter and average temperature in summer, that have been associated with rural population growth according to McGranahan (1999) and McGranahan et al. (2011). Winter temperature is measured by the average January temperature, while summer temperature is measured via the average July temperature. Because of the potential problem of multicollinearity (a high correlation coefficient between the average January temperature and the average July temperature), we include in the model the January temperature and the Temperature gap between January and July according to a prior study. The temperature gap between January and July is measured by the residual of a regression July temperature on January temperature. The estimated residual shows how much the temperature in July is higher or lower in relation to what one would predict on the basis of the January temperature (Rikalović and Josipović, 2019, pp. 253).

Based on the research of McGranahan (1999, 2008, 2011), topography variation, water area and land in forest are used as proxy measures for the main components of the rural amenity landscape in Serbia. Topography was measured by the topography map (developed by the Military Geographical Institute in Belgrade, 2018). The map indicates four basic categories of the land formation: (1) lowlands (up to 500 m), (2) low mountain relief (500–1000 m), (3) mid-mountain relief (1000–2000 m) and (4) high mountain relief (above 2000 m). The topography scale (1-4) was formed by assigning an appropriate number (1-4) to each rural area depending on the type of relief that prevails in it. If rural

area had more than one type of land formation, we assigned the highest of the land formation that applied, provided that this highest category covered a minimum of 15% of the rural area. Water area and land in forest are measured as the proportion of the total rural area. It is assumed that residents (established and prospective) and tourists prefer rural areas with varied topography, mix of forest and open land and with a land area comprised of rivers and lakes.

The amenity value of each rural area is determined not only by the level of natural amenities, but also by the development of rural infrastructure, infrastructure related to the supply of different recreational activities and the development of modern transport infrastructure. Opportunity for outdoor recreation activities is measured by the share of employment in Hotels and restaurants according to McGranahan et al. (2011) and by the share of employment in Art, entertainment and recreation according to Argent et al. (2007). Modern transport infrastructure is measured as the ratio of the modern road length and the total rural area. The development of modern transport infrastructure indicates the level of development of local area, as well as the degree of its integration into the wider context of the region and the national economy. The development of infrastructure (highways) for travel to amenity-rich regions and recreational site developments that facilitate amenity resource use play important roles in determining overall amenity value (Marcouiller & Clendenning, 2005, pp. 13). It is assumed that without adequate infrastructure, the non-commercial value of rich natural amenities is low. The starting hypotheses in empirical research is defined as follows:

H1: If different outdoor amenities are highly related to the „amenity value“ of rural areas, then they can be summarized in a single scale in order to map the distribution of specific outdoor amenities across rural Serbia.

In order to test the defined hypothesis, the empirical research is divided into three parts:

- In the first part, the relative amenity value of each rural area in Serbia is gauged;
- In the second part, the impact of specific outdoor amenities on the local amenity value is analysed; and
- In the third part, two composite indexes are formed in order to analyse and map the distribution of specific outdoor amenities across rural areas in Serbia.

Econometric methods for cross-sectional data are used in order to gauge the relative amenity value of each rural area in Serbia and to test the impact of specific natural and built amenities as core components that characterize amenities in the rural context. The approach accepted in the literature dealing with the issues such as identification and quantification of the key components that comprise rural amenities (Beale and Johnson, 1998; McGranahan, 1999; Deller et al., 2001; Glaeser et al., 2001; McGranahan, 2008; Wu and Gopinath, 2008; Hand et al., 2008; McGranahan et al., 2010 and Josipović, 2018) is based on the analysis of an average housing value and income per capita. We used the residual from the ordinary least squares regression of the average house price on the average income per capita as an approximation for the amenity value (the demand for amenities) of the local environment. A positive relationship of the selected measures of outdoor amenities with the estimated relative amenity value is expected.

4. Empirical results

The methodology explained in the second part of the paper, used to measure the relative amenity value and different indicators of outdoor amenities, was applied for the first time as a part of the empirical research whose objective was to analyse the differences in the human and entrepreneurship capital between rural areas with high outdoor amenities and rural areas with low outdoor amenities in Serbia during the period 2008–2015 (Josipović, 2018; Rikalović and Josipović, 2018). According to the results of this empirical research, in 2008, temperature gap, topography, water area, land in forest, the share of employment in hotels and restaurants and the modern transport infrastructure had a significant influence on the relative amenity value of rural areas in Serbia and explained a significant part of the variation in the housing value residual (Drobnjaković et al., 2021).

Table 1. Validation of the regression model assumption

Measure	Regression model, 2017	Regression model, 2018	Regression model, 2019
	Test statistic (p - value)	Test statistic (p - value)	Test statistic (p - value)
Autocorrelation / Breuch-Codfrey test	2.22 (0.33)	1.93 (0.38)	2.57 (0.28)
Heteroscedasticity / Breusch-Pagan-Codfrey test	0.71 (0.65)	0.71 (0.65)	0.34 (0.91)
Normality of residuals / Jarque-Bera	0.50 (1.37)	1.52 (0.47)	0.48 (0.79)
Regression specification error / Ramsey RESET test	1.41 (0.28)	0.26 (0.78)	0.32 (0.73)

We applied this methodology for the second time within the extended empirical research with the objective to implement the concept of outdoor amenities on the example of rural Serbia. In the first step, we estimated the relative amenity value of each rural area in a three-year period by using econometric methods for cross-sectional data. Following the empirical research of Gleaser et al. (2001), the relative amenity value is estimated by obtaining the residual of the regression of the average housing value on the average income per capita. In the second step, we tested the individual indicator of outdoor amenities (presented in the second part of the paper) relationship with the relative amenity value of each rural area in Serbia as a dependent variable. In regard to the previous empirical research, in the new, extended empirical research, two new variables were included in the model: (1) The share of employment in Art, entertainment and recreation as an additional variable that can be used as an approximation of the possibility for different recreational activities together with the variable that measures the share of employment in Hotels and restaurants; and (2) One dummy variable (Rural areas – top quarter) in order to include in the model the heterogeneity between the rural areas from the point of outdoor amenities. The dummy variable takes the value of 1 if rural area is characterized with high outdoor amenities, according to the developed outdoor amenities index of rural areas in Serbia as a result of our previous empirical research, and 0 otherwise. Table 1 presents the results of testing the validation of the regression model assumptions. Table 2 presents the regression results of the housing value residual on outdoor amenities measures based on the data for 2017, 2018 and 2019.

In the ordinary least squares (OLS) regression for all three years, one measure of climate (January temperature), one measure of rural amenity landscape (topography), two built amenities (the share of employment in Art, entertainment and recreation and modern transport infrastructure) and the dummy variable had a significant influence on the relative amenity value of rural areas in Serbia and explained about 60% of variation in the housing

value residual. Independent variables that measure outdoor amenities through January temperature, share of employment in the Art, entertainment and recreation and the dummy variable were statistically significant at 5% level. Variables that measure outdoor amenities through topography and the development of modern transport infrastructure were significant at 10% level. All three regressions were statistically significant at 1% level. Thus, we can confirm the hypothesis that specific outdoor amenities (January temperature, topography, share of employment in Art, entertainment and recreation and modern transport infrastructure) have a significant positive influence on the relative amenity value of rural areas in Serbia. Other independent variables included in the model (temperature gap, land in forest and water area and the share of employment in Hotels and restaurants) did not have a significant influence on the relative amenity value. Also, we can conclude that the share of employment in Art, entertainment and recreation is a better proxy measure for the outdoor recreation opportunities than the measure of the share of employment in Hotels and restaurants. The coefficient for the dummy variable is negative because the potential of the outdoor amenities in Serbia has not been exploited and the identified rural areas in Serbia with high outdoor amenities have been facing structural problems, such as ageing of the population, poor educational structure of the population, insufficiently developed secondary and tertiary sector, as well as a large number of unemployed people per thousand inhabitants.

Table 2. Residual housing value regression

Variable	Regression model with amenity measures, 2017		Regression model with amenity measures, 2018		Regression model with amenity measures, 2019	
	Coefficient	p - value	Coefficient	p - value	Coefficient	p - value
January temperature	0.120	0.0063	0.097	0.0248	0.133	0.0136
Topography	0.078	0.1081	0.085	0.0838	0.099	0.0619
Hotels and restaurants	-0.084	0.1926	-0.088	0.1563	-0.102	0.1501
Art, entertainment and recreation	0.487	0.0028	0.531	0.0030	0.661	0.0041
Transport infrastructure	0.220	0.0675	0.215	0.0719	0.226	0.0728
Rural areas - top quarter	-0.256	0.0258	-0.344	0.0059	-0.336	0.0175
Constant	-0.519	0.0335	-0.551	0.0299	-0.987	0.0033
R ² (R ² adj.)	0.65 (0.52)		0.63 (0.49)		0.59 (0.45)	
F statistic	5.19 (0.00)		4.732 (0.01)		4.11 (0.01)	

5. The mapping of rural Serbia

In order to gain insight into the distribution of specific outdoor amenities (i.e. different levels of „outdoor amenities“) across rural areas in Serbia, we formed two amenities composite indexes, the natural amenities index and the outdoor amenities index. They were formed by summing up measures of different amenities indicators that comprise outdoor amenities according to the relevant literature and outdoor amenities which are highly related to the amenity value of rural areas in Serbia according to the empirical results of the extended empirical analysis presented in the third part of the paper. Since the used amenities measures were expressed via different scales, we used their standardized measures in order to form two amenities composite indexes.

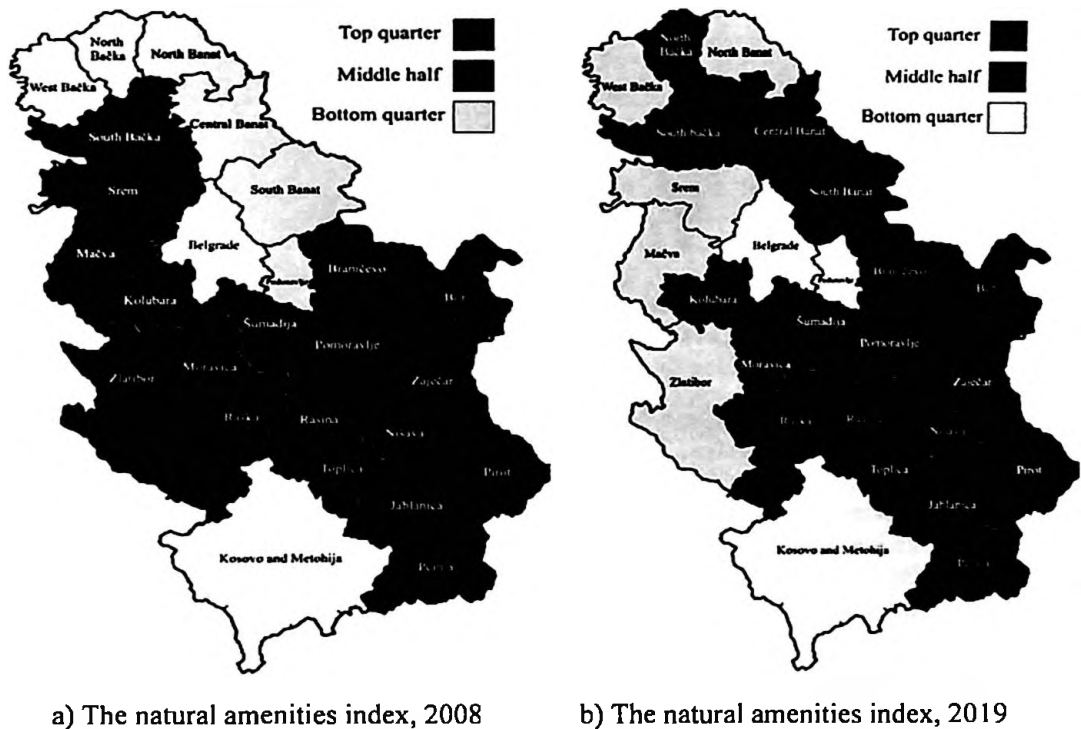
The natural amenities index was formed by summing up the standardized measures of the four natural amenities measures: January temperature, topography, water resources and land in forest. January temperature and topography have a significant positive

Outdoor amenities and rural population in Serbia

influence on the amenity value (on the demand for rural amenities) according to the empirical results presented in the third part of the paper. Although water resources and land in forest do not have a significant influence on the amenity value, they are included in the index because they represent the environmental qualities most people prefer (McGranahan, 1999). Also, they represent significant natural amenities whose potential has not yet been recognized in Serbia.

Based on the value of the formed natural amenities index, rural areas in Serbia can be classified into three groups: the top quarter (identified as rural areas with the high level of natural amenities), the middle half and the bottom quarter (identified as rural areas with the low level of natural amenities). Figure 2 presents the maps of rural Serbia developed using the natural amenities index, formed as a result of our previous (the natural amenities index, 2008) and new, extended empirical research (the natural amenities index, 2019).

Figure 2. Map of rural Serbia according to the natural amenities index

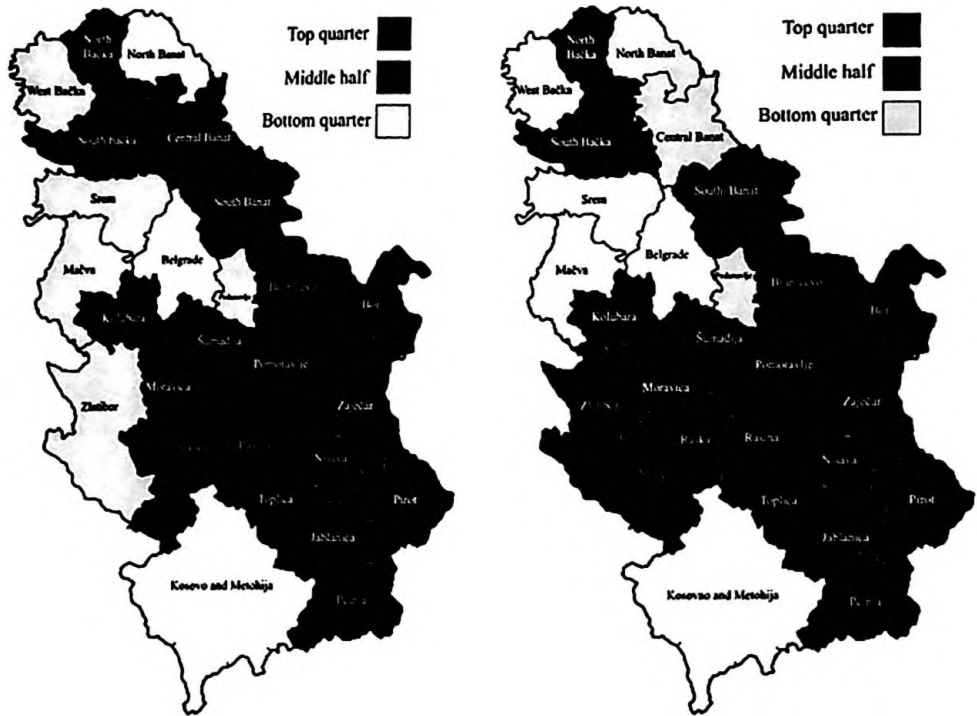


The second composite index, the outdoor amenities index, was formed by summing up the standardized measures of the four measures of natural amenities (January temperature, topography, water area, land in forest) and two measures of built amenities that have a significant positive influence on the amenity value of rural areas in Serbia in 2019 (the share of employment in Art, entertainment and recreation and the development of transport infrastructure).

Based on the value of the formed outdoor amenities index, rural areas in Serbia can be classified into three groups: the top quarter (identified as rural areas with the high level of outdoor amenities), the middle half and the bottom quarter (identified as rural areas with

the low level of outdoor amenities). Figure 3 presents the maps of rural Serbia developed using the outdoor amenities index, formed as a result of our previous (the outdoor amenities index, 2008) and new, extended empirical research (the outdoor amenities index, 2019).

Figure 3. Map of rural Serbia according to the outdoor amenities index



a) The outdoor amenities index, 2008

b) The outdoor amenities index, 2019

In the previous and in the extended empirical research, three areas were identified as the areas that belong to the top quarter according to the level of natural amenities (Raška, Pčinja and Bor). Also, in both empirical studies, four areas were identified as the areas that belong to the top quarter according to the level of outdoor amenities (Raška, Zlatibor, Pčinja and Bor).

The developed natural and outdoor amenities indexes of rural areas in Serbia reflect the quality of rural physical and social environment that people prefer for living, work and recreation. Generally, mountain topography with diverse mountain streams and rivers and specific climate enables site-specific qualities of high outdoor amenities. This provides opportunity for various recreational activities, and the development of modern transport infrastructure will only increase the overall potentials of these areas.

6. Conclusion

Natural amenities and other site-specific qualities of rural environment are an important segment of the local economy which needs to be taken into account in order to

Outdoor amenities and rural population in Serbia

provide efficient rural development policy and its instruments. Improving the “quality” of rural environment is consistent with the aims of smart, sustainable and inclusive growth. The paper points out the relevance of the concept of outdoor amenities for the transformation and structural change of rural economy, with special emphasis on the significance of the concept for Serbia.

Outdoor amenities are unevenly distributed within the national economy and are recognized as the key indicators of social well-being of rural population. During the COVID-19 pandemic, the importance of the concept of rural amenities for the overall socio-economic life has been additionally heightened. While the cities were in lockdown, rural areas with rich outdoor amenities provided residents with the opportunity to enjoy a pleasant living conditions, like mild climate, a beautiful natural landscape and active outdoor recreation. The pandemic has changed the way people live, work, communicate and connect. They have developed awareness of the benefits of living and working outside the overcrowded urban areas, which can have multiple effects on the future economic, social and cultural development of rural areas. During the pandemic in Serbia, rural areas with rich outdoor amenities attracted a significant number of working-age people with their families, who practiced distance working and distance education. The comparative advantage of rural areas with high outdoor amenities over the rural areas with low outdoor amenities is reflected in the pleasant climate, varied topography, rich forest and water resources and the supply of various recreational activities.

The amenity-driven rural development has to be based on the use of specific outdoor amenities as an instrument that will trigger migratory movements from urban to rural areas. After the pandemic, many individuals will continue to practice distance working and distance education. The rich natural, recreational and cultural environment will be an efficient instrument for the transformation of the local economy and diversification of economic activities only if it goes hand in hand with the development of information-based industries, recreation industries, more intensive digitalization and development of rural infrastructure.

The paper provides an answer to the question of the attributes which comprise outdoor amenities in the rural context. The concept of rural amenities is implemented on the example of rural areas of Serbia in order to model and measure specific outdoor amenities. The contribution of the paper is reflected in the consideration of the possible ways of quantifying different outdoor amenities and developing the methodology for estimating amenity value in the rural context and for mapping rural areas in Serbia with respect to their significant outdoor amenities. The results of the empirical research confirmed the positive link between the specific indicators of the natural and built amenities and a relative amenity value of rural areas in Serbia. Further, the contribution of the paper is reflected in the developed maps of rural Serbia according to two constructed composite amenities indexes, the natural amenities index and the outdoor amenities index. The conducted empirical research is only the starting point in creating an efficient rural policy based on the utilisation of the development potential of natural resources and other rural amenities in order to achieve: diversification of rural activities through the development of organic production and production of traditional rural products; development of entrepreneurship, rural tourism, cultural activities and art; development of rural infrastructure; establishment of the necessary institutions and the improvement of the quality of public health care and education. In the future, four identified rural areas in

Serbia with high outdoor amenities (Raška, Zlatibor, Pčinja and Bor) may be suitable for the settlement of highly educated individuals with higher socio-economic status who will have the ability to work remotely after pandemic as well and who perform occupations that belong to the service sector.

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AMBIJENTALNE POGODNOSTI I RURALNA POPULACIJA U SRBIJI

Apstrakt: Kvalitet okruženja, u najširem smislu te reči, se smatra jednim od ključnih elemenata pametnog, održivog i inkluzivnog rasta ruralnih područja. Zbog toga se koristi kompozitni indeks ambijentalnih pogodnosti u mapiranju ruralnih područja. Iznad svega, posebna pažnja treba da se posveti analizi povezanosti koncepta ambijentalnih pogodnosti i distribucije ruralne populacije na određenom prostoru. Značaj koncepta ambijentalnih pogodnosti za društveno-ekonomski razvoj ruralnih područja je široko eksploatisana tema. Ambijentalne pogodnosti se smatraju značajnom komponentom ukupnog ruralnog ambijenta, što se naročito očitivalo tokom pandemije COVID19. Sve više se ruralna područja posmatraju kao visoko vrednovana od strane tzv. kreativne klase. Pri tome, ova područja su posmatrana kao dinamičke teritorije koje kreiraju okruženje za novu kombinaciju populacije, znanja i preduzetništva. Da li je to moguće ostvariti i u Srbiji? Tokom tzv. socijalističke ere, ruralna područja su višestruko zapostavljana u našoj zemlji. U cilju pružanja odgovora na istraživačko pitanje, osnovni cilj rada je da identifikuje glavne komponente ambijenta u ruralnom kontekstu i metode za merenje ruralnih ambijentalnih pogodnosti. Osnovno istraživačko pitanje glasi: Kako ruralne ambijentalne pogodnosti utiču na odluke stanovništva i poslodavaca u kontekstu lokacije prostora za život, rekreaciju i obavljanje posla u Srbiji? U radu se daje prikaz kompozitnih indeksa koji su razvijeni u cilju klasifikacije ruralnih područja. Relativna vrednost ambijenta je utvrđena korišćenjem ekonometrijskih metoda analize uporednih podataka. Izvedeni zaključci su posebno važni za definisanje mera ruralne politike u Srbiji.

Ključne reči: ambijentalne pogodnosti, vrednost ambijenta, kompozitni indeks, ruralna područja, ruralna populacija.