

DEVELOPMENT OF HUMAN RESOURCES IN MOUNTAIN RURAL AREAS OF SERBIA

Jovan Zubović¹, Andrea Vuković²

Abstract

Rural areas represent great potential for economic growth and prosperity in Serbia. In this paper, we focus on the mountain area region, which is by Rural Development Strategy declared to be resource oriented. Given that human resources generate greatest competitive advantage in modern developed economies, the emphasis is placed on indicators that describe current state of human capital. They include almost all demographic indicators as well as the educational structure of population. We have revealed certain trends in target population, and have given an overview of potential activities necessary to improve current situation. The main idea is that improvement of human capital in mountain areas can reduce migrations to urban areas and weaken their negative effects. That can be achieved through education of population which should result with improved living standards and better utilisation of natural resources.

Key words: *rural areas, mountain areas, human capital development*

Introduction

Literature review provides several definitions of rural development in respect to different viewpoints and perspectives of analysis. According to Van der Ploeg et al (2000) the concept of rural development is primarily a heuristic invention. It puts an emphasis on finding the new triggering power for rural development in the search for promising future. He overcomes modernization theory where the problems of rural areas and agriculture are considered resolved, and emphasizes that the theory of rural development is not a theory about the world as it is, but the way in which agriculture and rural areas can be reconfigured.

¹PhD Jovan Zubović, Research Fellow, Economics Institute, Belgrade, Kralja Milana Street No. 16, Belgrade Serbia, e-mail: jovan.zubovic@ecinst.org.rs, phone. 066 357 000

²Andrea Vuković, MA, Research Associate, Economics Institute, Belgrade, Kralja Milana Street No. 16, Belgrade Serbia, e-mail: andrea.vukovic@ecinst.org.rs

Nemes (2005) describes analytical models of integrated and non-integrated rural development systems which is a step forward in resolution of the problems of rural development. Heyer, Roberts and Williams (2010) give a detailed overview of rural development described as ideology and give practical examples. More precisely Djordjevic Milosevic and Milovanovic (2012) stress that creation of adequate rural development policy should be necessary for the following reasons:

- Rural areas face significant challenges which undermine their economic and social cohesion;
- Rural areas often have economic potential that is largely untapped and can be better utilized for the benefit of the rural population and overall national development;
- No sectoral policies or market forces are able to fully respond to the heterogeneity of the challenges and potentials of rural areas and to cope with all the positive and negative external factors.

Focusing on mountain regions, Tzanopoulos et al (2011) introduce analysis of mountain regions as specific and differing from other rural areas. Moreover Iorio and Corsale (2010) go into specifics and target tourism as potential way out of growing disparities of mountain areas. In this paper we will try to expand the research topic on the creation of human capital of population living in mountain rural areas in Serbia.

The paper is structured in the following manner. In the first part we give some theoretical aspects of human capital and the importance of rural development for sustainable economic growth. Further there is the review of rural areas in Serbia, focusing on mountain region and its population characteristics. That is followed by the analysis of possible direction and obstacles for development of human capital. Finally we complete the paper with conclusions and recommendations.

Methodological aspects

Literature review is used to stress on the importance of human capital in general and particularly in rural areas. Afterwards we have made a selection of municipalities that belong to given selection of the third rural region in Serbia in accordance to National Rural Development

Programme 2011-2013 (Government of Serbia, 2011). By means of reviewing publicly available statistical databases published in “Municipalities and regions in the Republic of Serbia” (Statistical Office of Serbia, several years) we have statistically analysed relevant data and indicators are synthesised trends on selected target population focusing on economic activities (agriculture, forestry, fisheries, tourism and catering). Thereafter we have proposed required activities that may influence development of rural regions in targeted municipalities.

The importance of human capital in rural areas

The concept of human capital is based on the fact that not every work is equal and that investment in human resources is one of the strategic directions of possible development of both individual organizations and the economy in general. Schultz (1961) argues that human capital is the same as any other form of capital.

He notes that investments in education, training, and expanded benefits can lead to improved quality and production levels of human capital. Since the research conducted by Becker (1964) and Drucker (1968), knowledge is recognized as a fourth economic pillar alongside those of land, labour, and capital. Knowledge is of course generated by human resources and creates human capital.

Defining the concept of human capital in literature differs to some extent. However, an overall idea could be summarized as to that human capital is a concept which views people as creators who are encompassed by their own knowledge, skills, competencies and experience that were created in the process of interaction between individuals and the environment.

Slocum (1972) introduces the concept of rural development based on three components – “The creation of a viable economic base, institution building to provide adequate community facilities and services, and providing more adequate bases for personal growth”. He was the first to understand that changes in rural areas need to be based on increasing knowledge base of human resources.

From the social point of view rural areas are characterised by significant disparities observed in technological, educational and cultural aspects as compared to urban areas.

Milić (2011) clarifies that EU rural areas are considered to be the ones that can be characterized as multifunctional areas the development of which has multiple benefits:

- Economic - the raw materials of agricultural origin, primarily resulting from the rural areas can be exchanged for other products or used to generate income;
- Sociological - durability of such a system lies in the fact that the members of rural communities feel deeper intimacy and relationship with other members of the community;
- Environmental - sustainability of natural resources is achieved through the individual actions of members of these communities to maintain and improve their own quality of life;
- Cultural - cultural heritage of rural areas is very rich and has a wider, national and international significance.

Cultural aspects of rural development are gaining importance when it comes to defining the economic potential of rural areas and rural communities.

When talking about European environment, about 57 % of the EU population live in rural areas, which account for over 90 % of the Union land area. The average population density is 115 inhabitants per km², while in remote or sparsely populated areas, such as the northern part of Finland, the density may be even 2 per km² (Gallego, 2004).

In Serbia there is no official definition of rural areas. The criteria used by the Statistical Office do not include standard factors determining rurality of an area (population size, the share of agricultural population, population density, and other indicators). It is rather considered that rural area is an area not being urban. Rural areas are all inhabited areas except cities in accordance with the Law on Territorial Organization of the Republic of Serbia (Official Gazette 129/07) which have less than 100,000 inhabitants (Government of Serbia, 2011).

According to the OECD rural areas of Serbia are defined as these with a density of population density below 150 inhabitants per km². Given this definition, rural areas include 129 out of 169 municipalities and around 3900 settlements, with about 1,365,000 households, representing 54 % of

total households in the RS. According to the strategy of rural development we can divide all rural areas in Serbia into four main regions, namely:

- Region 1: Highly intensive agricultural production and integrated economy
 - Region 2: Small urban economy with intensive agriculture
 - Region 3: Economies oriented on natural resources, mostly in mountainous areas
 - Region 4: High tourist facilities and poor agricultural structure
- Rural mountainous areas of Serbia

In this paper, emphasis is placed on the third region (Region 3) which applies to those oriented to natural resources which are located mainly in mountainous areas.

Data on human resource in mountain rural areas in Serbia

With regard to potential of its development based primarily on agriculture it would be expected that Region 3 has the greatest potential. However it is important to determine the level of its utilisation in the context of human capital and natural resources, and what the trends of population movements are.

Mountainous region, with an economy based on natural resources is the largest rural region in Serbia covering 34 % of the territory. With regard to the entire land area of Serbia these represent 25 % of the total.

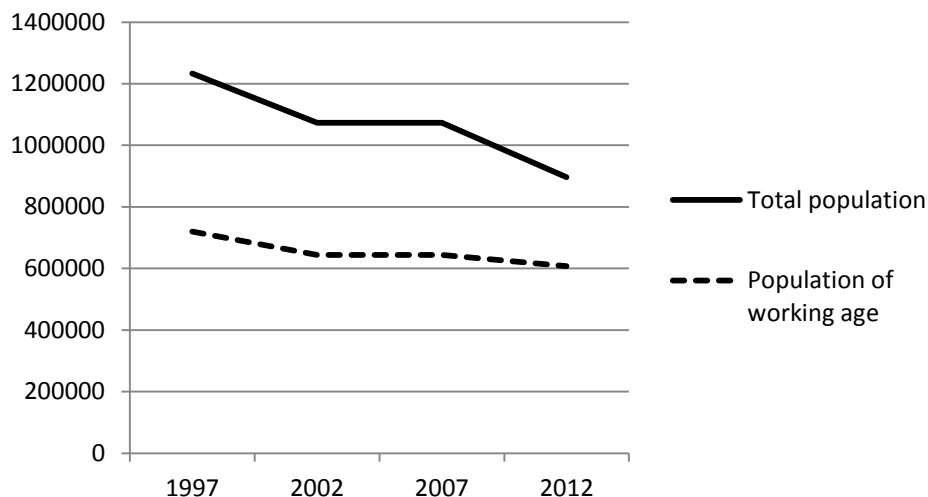
Table 1. *Geographical information and data on economic activities in Region 3*

Land area, km², 2004.	22.278
Settlements, 2004	1.569
Population density (per km²)	43,40
Arable land	55,36%
Forests	37%
Orchards and vineyards	6,51%
Livestock farming	20,5%

Source: *Own calculations*

This area has a large share of arable agricultural land (about 55%) with excellent opportunity for initiating agricultural activities. Likewise, this area is rich in natural resources, where the area covered by forests is about 37%. The area covered by orchards and crops is just over 6%. However, this area has a significant stake in livestock farming where the percentage exceeds 20%.

Figure 1. *Trend of population and working-age population in Region 3*

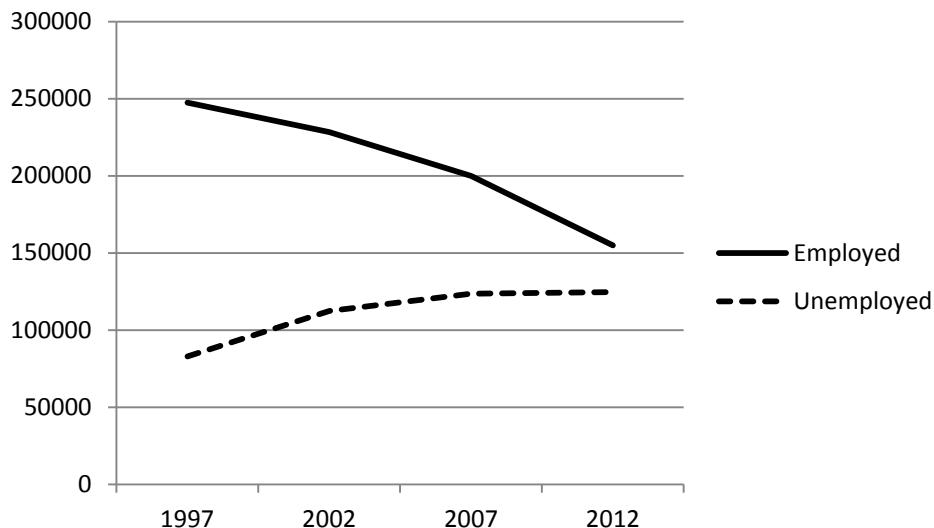


Activity rate of population is an important factor for identification of needs for development and improvement of living standard. In Serbia it is identified a drop in absolute number of working population where employment in the whole country is equal to only 34.4 %. Decline in the birth rate and natural growth rate has a significant impact on this trend as well, which is associated with the economic happiness of population.

According to Figure 1, we can clearly see the negative trend of the population in a given region. The total number of residents as compared to 1997 has declined by 27%. That clearly indicates strong migrations of population to urban and economically stable areas.

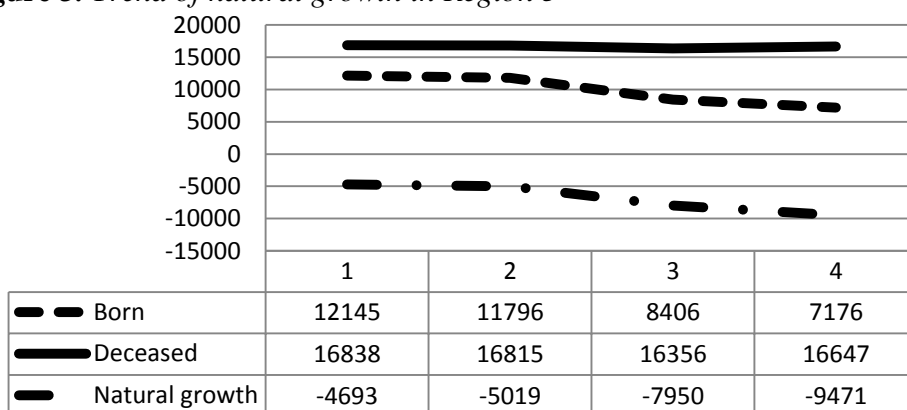
The absolute number of working-age population is also a constant fall declining for the same period by over 15%. The problem is enhanced by the fact that share of population under age of 15 has fallen to just 15% as compared to the cohort of 65+ which is growing and has reached 20%.

Figure 2. *Employment trends in Region 3*



As the employment trends in Serbia are negative, its logical continuation is the downward trend scenario in this region as well. Number of unemployed persons in the period 1997-2012 grew by over 50% and the number of employees decreased by over 37%. Given that this region is the largest by area, and the most indented in terms of density the level of its underutilisation in terms of natural resources becomes visible. If such trend continues and state does not help to create environment in which people could have motive to contribute to the development, certain regions could become completely abandoned.

Figure 3. *Trend of natural growth in Region 3*



Source: *Own calculations*

The structure of the population in terms of natural growth in the period 1997-2012 is drastically deteriorating, as shown in figure 3. Number of deceased persons is contains over time while number of births is rapidly decreasing. That is adding to unfavourable structure of population living in this area. As noted above if this trend continues human population from these areas will eventually disappear.

Finally in table 2 there we have summarised major demographic indicators of population living in mountain rural areas in Serbia.

Table 2. *Summary of demographic indicators in Region 3*

Year	Population	Working age population	Employed	Unemployed
1997.	1.233.435	719.869	247.438	82.878
2002.	1.073.617	643.838	228.422	112.456
2007.	1.073.617	643.838	199.936	123.539
2012.	896.492	608.052	154.801	124.664
Change (%)	-27,32	-15,53	-37,44	50,42

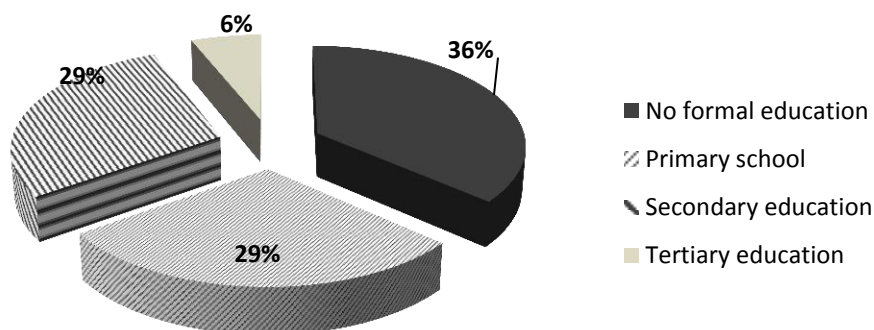
Such demographic trends are certainly not in favour of sustainable development of the mountain rural areas in Serbia. All trends are negative, with no clear sign of recovery.

The importance of rural areas in Serbia is based in the fact that 55% of the population lives in these areas, and that it generates as much as 41% of gross domestic product. Identification and scanning of the trends gives negative impression regarding the opportunities offered by a given region.

Natural resources are unused, and most importantly, a there is a constant high level of migration to urban areas. All this tells us about the non-existence of motivating factors that could encourage young and aspiring residents to return to a rural area after finishing school in cities.

A review of the educational structure of the population, as shown in Figure 4 is not favourable. Proportion of population without formal education is very high reaching 36%. Lack of motivation, support and availability of information is one of the key actors of this situation.

Figure 4. *Educational structure in Region 3*



Population with tertiary education constitutes only 6% of total population in the area. Higher education is provided only by three faculties located in that area. Encouraging population for higher levels of education is primarily be motivated by higher national interests. Attitudes, personal characteristics, motivation, skills and knowledge are the driving force that seeks knowledge-based economy (Vukovic, et al, 2012).

Strategic Directions for Rural Development

Insisting on integrated rural development in recent years is gaining in importance. One-sectoral approach based primarily on agriculture needs to be transformed to an integral model. Networking and multi-layered cooperation between all sectors and at different levels of government and harmonious relations of private and public economic factors has to be achieved.

According to Milošević-Dorđević & Milovanović (2012) transition from mono to an integrated approach of rural development involves diverting attention to four key areas: 1) transport and the development of electronic communications; 2) the provision of public services; 3) evaluation of natural and cultural resources; 4) promotion of rural enterprises.

The main prerequisite in fulfilment of the above mentioned goals is to create conditions for reducing unemployment through incentives and possible intervention by both states and the EU. Based on the needs

assessment of the capabilities of specific areas, besides financial assistance it is necessary to provide knowledge and skills that are aligned with the developmental cycle of the region.

Among the most important EU rural development programs is so-called LEADER program. It is the French acronym for *Liaisons Entre Actions de Développement de l'Économie Rurale*. This program is a support program for holistic development of local communities in rural areas. It supports initiatives on a bottom-up principle and is strengthening the role of local partnerships between the public and private sectors - Local Action Group (LAG). This approach stimulates not only endogenously generated rural development, but encourages transnational cooperation of European regions in the exchange of experiences and joint action in favour of rural development (Milošević-Đorđević & Milovanović, 2012).

Review of secondary data indicates high deficit in human resources in the region. If no adequate measures are taken to reduce migrations, the area could experience a complete cessation of all economic activities to the level of production needed only for own use.

Educational and employment structure shows a need for development of a variety of programs of professional support, development and expansion of knowledge and other actions that would result in the activation of the population. Integration program at its beginning requires development of the plan of human capital necessary to verify the identity of a population in a given region, which can show an interest in developing the area as well as personal qualities, skills and knowledge. As noted by Milošević-Đorđević, Milovanovic, 2012 promotion of knowledge-based economy in rural areas, requires several actions:

- a. Raising awareness of contribution of the area to society and community
- b. Raising motivation in the local community and encouraging self-motivation
- c. Training target groups in terms of communication, negotiation and presentation skills
- d. Learning the techniques of decision-making
- e. Raising awareness of opportunities to apply for development and other projects

- f. Training for writing projects' application
- g. Identifying the domestic and foreign institutions providing support to rural development
- h. Creating a Local Action Group (LAG)
- i. Connecting LAG groups at local and international level
- j. Encouraging entrepreneurial initiatives

In addition to the previously stated requirements for development, it is also necessary to identify levels of expertise in agriculture and tourism of local population, as they are the primary activity in the region with the highest potential for further development. The way to improve is through involvement of experts that will transfer knowledge and build quality of products and services.

Rural development as a national priority should be given more importance because of the EU integration process. One of the requirements for accession is the accessibility and transparency of national funds. Rural population primarily has to be informed and educated as to how to obtain funding.

Taking into account indicators of the demographic structure of the target population, the difficulties that may arise in the case of intensive human capital development of the area relate primarily to population age structure. Adding negative population growth, and educational structure, with a high percentage of people with no formal education can create the problem of inability development human capital. In this case, the knowledge to be transferred to the population of the target area will have no purpose. The time factor in this case has a very important role. Launching development of human capital plan should be implemented as soon as possible.

First steps in this direction have been made in 2012 with the training conducted by RARIS (Regional Development Agency Eastern Serbia) regarding various aspects of acquiring knowledge: How to start own business - Start Up package ; Preparing business plan and dealing with the banks; Standards of quality and cost standards; Financial management, Innovation and Export. There have been organized 23

training sessions for a period of 43 days, but the number of people who answered the call was only 290.

In order to improve the structure of human resources, agriculture, and other important areas of the region it is needed to trigger the institutions at the state and local level. Stakeholders that we have identified are as follow:

- Ministry of Agriculture, Forestry and Water Management, which is responsible for rural development;
- Ministries responsible for economy and regional development, finance, infrastructure, education, environment, labour and social welfare, tourism;
- National agencies and bodies responsible for the development of SMEs, infrastructure, environment, funding for development, poverty reduction
- Chamber of Commerce
- Cooperative Associations, the Standing Conference of Towns and Municipalities, Tourist organizations, Advisory services
- Academic and research institutions
- Non-governmental organizations
- Farmers Association
- Tourism Association
- Landowners

Conclusions

Indicators of development of the region economically oriented on resources, mainly in the mountain areas in terms of human capital do not contribute to the sustainable development of the region. Taking into account the indicators giving territorial distribution of mountain areas with a total surface RS (25 %) and the share in total rural Serbia (34 %), it is clear that this region has very high development opportunities in terms of economic activation areas, in terms of production and service potency.

Implementation of the strategy of sustainable development of the region primarily needs to be oriented towards demographic and educational aspects of the population. Indicators and population trends show high migration and cutback in the number of able-bodied personnel primarily in the areas of agriculture, fishery, forestry, and tourism and hospitality industry. The educational structure is highly unfavourable, for the largest number of people is without basic education.

In order to create environment for dissemination and transfer of knowledge to population in mountain rural areas initial steps that include the following must be undertaken:

- Finding solutions to reduce migration to urban areas;
- Promote return of the population after graduation (secondary, college, university);
- Introduction of financial and non-financial instruments to encourage motivation of population and the constant construction of interest in the development of the areas in which they live;
- Establishment of community in which knowledge, skills and abilities hereditary transfer in families.

All of these items cannot be resolved without external assistance. First of all it is necessary to intensify participation of government and other institutions in achieving the goal of reducing migration flows and other listed items in order to form an environment in which the transfer of knowledge is possible. This knowledge should focus on the real needs of the region in order to facilitate its survival. Demographic indicators are alarming and if trends continue within the next ten years there will be more unemployed persons than those who have a job.

Moreover trends of migrations will unless changed lead to potential eradication of human capital in mountain areas. If younger population, which currently constitutes 15% of population, do not return home after education, aging of population will lead to complete loss of human capital. All that associated with current educational structure of rural population in mountain areas are requiring urgent intervention.

Such intervention is necessary to create a program to people of this region that will provide necessary knowledge in the fields of agriculture,

tourism, crafts, entrepreneurship, management, economics, marketing and access to information and system of international trade. Such an initiative should not be taken individually, but it should be viewed from the perspective of the prosperity of the state and increasing the competitiveness of the market at senior international levels.

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