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INFLUENCE OF EDUCATION ON DEPOPULATION OF VILLAGE

SUMMARY

Population is a significant factor in rural development, because it recruits its workforce from the existing population, but also because of the fact that the population is a holder of needs which are the factor of consumption or production.

Demographic situation in Montenegro has been constantly deteriorating. Economic and social consequences of the demographic aging of the population are numerous: reduction of the share of economically active population, decelerating of technological progress, etc. From the aspect of rural development, negative consequences of demographic (depopulation and deagrarisation) are reduction of agricultural population. It is one of the most important changes in the socio-economic structure of the population. This led to disorder of age and gender structure of the agricultural population, in terms of increased share of elderly ("senilisation") and increased participation of women ("feminization").

Educational structure of the population is of special importance for rural development. However, if it is considered the education level of the agricultural population, it can be concluded that it is very unfavourable. One of the reasons is the process of deagrarisation, which led to a massive abandonment of agriculture and rural areas by working population. From a sociological point of view, a transfer of farmers into non-agricultural activities is not only a consequence of industrialization, but also a number of other factors.

One of them is enhanced communication with other worlds (spread of literacy, radio, television, etc.), which increased a social mobility of once poor farmers even more movable (Maksimović, 2011).

This paper analyzes the sociological factors that led to the depopulation and deagrarisation. Indicators of the educational structure (level of literacy and educational attainment) in fifty year period (1961-2011) have been analyzed. Conducted analysis shows that the process depopulation was not caused only by economic, but also by a range of non-economic factors. T

he most creative people were leaving rural areas what had a very adverse impact on agricultural production. Population and identification and management of natural resources is of great importance for future development of rural communities.

Keywords: education, population, depopulation, agriculture

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INTRODUCTION

In modern development conditions of any society, education appears as an essential condition and a basic factor whose impact has far-reaching consequences, both on overall development of the intellectual and physical capabilities and on the development of economy and society as a whole (Skara, Lj., 1972). Educational equity is a constitutive element of human capital and, therefore, one of the basic factors of intellectual equity (Koković, 2009, Petty, Guthrie, 2000). Before beginning the process of modernization of society (the second half of the twentieth century) Montenegro was an agrarian country where agriculture was the dominant branch. In the period after World War II, Montenegro had high agrarian population in relation to the Yugoslav average (Vukčević, 1963). The educational structure of the population in general and agricultural was characterized by a high proportion of illiterate people and even those without school. The lowest percentage of illiterate population in Montenegro was in Kotor (26.8%), and it was followed by Cetinje with 47.9% (Vujošević, 1990). Also, in Kotor was the largest number of residents who lived from non-agricultural activities, (Vujošević, 1990).

After World War II, Montenegro faced process of depopulation and deagrarisation. The unfavourable position of agriculture and private households, as well as favourable conditions in the city resulted in escape from the countryside and from agriculture, (Čikić, J. 1983). Economic theory of the twenties of the twentieth century tried to prove that the main cause of rural depopulation was low productivity of agricultural labour in relation to work in non-agricultural activities (Clark, 1955). Sociological theory emphases "revolution of civilisation", which disintegrated rural communities and seemed supportive in relation to abandonment of the village.

Transfer of knowledge "from generation to generation "was an integral part of the socialization of future farmers. Education of children in a peasant family was unnecessary luxury, because the workforce was being lost in such cases (Čikić, 2012). Despite the progress made in agro-industrial complex, education reform did not provide assistance to farmers to produce sufficient quantities of products, and to protect environment and prevent devastation of area at the same time (Petak, 1988). Gap in the level of education between people from city and countryside deepened. Continuation of unfavourable characteristics of the educational structure was influenced by the low social status of the peasantry, primarily the lack of funds needed for education. Only wealthy members of peasant society went to school but education was considered as a status symbol (Čikić, 2012). Educated groups were marginal among the rural and agricultural population. According to Petak, the rule is that all those who are educating leave the village and farms, and all those who do not see their future in the village, try to use education as a channel of deagrarisation. After the first wave of uneducated migrants from countryside who had found their job opportunities among unqualified and skilled workers, the next wave of migrants focused their education on non-agricultural activities (Čikić, 2012). The post-war

technological progress has caused decrease in demand of labour and thus had made room for its education, but mostly for non-agricultural occupations. Changes that occurred were in conflict with the principles of traditional peasant economy, according to which the impact of production on peasant holdings depends on the available number of hands, and number of household members (Mandras, 1986).

Today, education is the most important factor of social mobility of particular young people. Due to the underdevelopment of rural communities, young people see education as an opportunity "to escape from the countryside". An increasing number of young people opt for non-agricultural occupations and remain to work in larger urban centres. Unfavourable position of agriculture and peasantry had led to fewer parents wanting their children to be engaged in agriculture (Novak, 2010).

The aim of this paper was to analyze the indicators of the educational structure in Montenegro in the fifty year period 1961-2011 and their impact on the depopulation of rural areas.

MATERIAL AND METHODS

The paper analyzes the indicators of the educational structure in Montenegro and their impact on the depopulation of rural areas. The analysis was conducted for the period 1961 - 2011, when censuses were conducted in Montenegro. The indicators were analyzed in two aspects: participation of illiterates aged 10 and over in the total population and participation of all levels of education for the population aged 15 and over. In preparing the paper, the official data of the Statistical Office of Montenegro (MONSTAT) were used, as well as scientific and professional papers that dealt with this issue. In order to display the data, the statistical tables and graphs were used. Using the relative numbers of structure, it is shown the share of illiterate people in the total population aged over 10 years, the share of the population aged 15 and over by educational attainment and gender. Dynamic statistical analysis, namely, the method of calculation of basic and chain indices were used, as well as the methods of descriptive statistics. The paper uses the methods of research at the table "desk research" and methods of comparison. The paper aims to draw attention to the causes of uneven regional development in Montenegro.

RESULTS AND DISCUSSION

Period after 1945 represents milestone in the development of socioeconomic relations in Montenegro. Changes made in all aspects of social and economic development had positive effect on the development of educational structures, in both its essential aspect - participation of illiterates and participation according to educational qualifications. Literacy is the basis, initial form of acquiring further education and education level of an individual. It is a prerequisite for cultural development, which has a capital importance for communication and understanding between people (Skara, Li., 1972). A large

number of studies have confirmed a visible impact of literacy on the positive effects of employees in manufacturing. Strumlin wrote "that literacya worker acquires after only one year of primary education contributes to increasing of labour productivity by about 30%, while the length of service of illiterate workers increases the qualification and the effects by 12 to 16%", (Skara, Lj. 1972). Illiteracy is inevitably accompanied by poverty, unemployment and other social vices. Table 1 shows the participation of illiterate people in the total population aged 10 and over in Montenegro in inter-censuses period that took place between 1961-2011.

Table 1. Participation of illiterate people in the total population aged 10 and over in Montenegro, 1961-2011.

	1961	1971	1981	1991	2003	2011
Total number of illiterate people aged 10 and over	352.04 9	418.17 7	477.07 7	511.91 4	537.89 8	542.64 9
Total number of illiterate people	76.368	69.805	44.633	30.443	12.617	8.149
% participation of illiterate people in total number of population aged 10 and over	21,70	16,70	9,40	5,90	2,35	1,50

Source: Calculation of the corresponding author according to the data in Montenegro, 1961-2011

Data in Table 1, show a social progress of the changes in the number of illiterate population. Specifically, total number is gradually decreasing. Percentage of illiterate population in 1961 stood at 21.7% - it was reduced to 1.5% according to the 2011 census. In the fifty years of the reporting period, the number of illiterates decreased by approximately 68,129 (decreased from 76,368 to 8,149).

Table 2. Trend of illiterate people aged 10 and over in Montenegro according to basic and chain indices, 1961-2011.

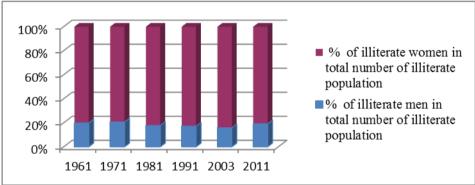
Year	Basic index 1961 =100	Chain index
1961	100	-
1971	91,40	91,40
1981	58,44	63,99
1991	39,86	68,20
2003	16,52	41,44
2011	10,67	64,58

Source: Calculation of the corresponding author according to the data in Montenegro, 1961-2011.

On the basis of the calculated indices where 1961 is taken as the base year, it is clearly shown a drop of illiteracy, which was the most obvious at the 2011 census and it was about ninety index points compared to the base year of 1961.

Chain indices show a decline in illiteracy even by individual census years. However, despite the results achieved over a period of fifty years, we should point out the fact that the official statistics of Montenegro continues to lead the data on literacy, which speaks volumes that illiteracy has not been eradicated. Contrary to our practice in a number of countries in which illiteracy and registration of this phenomenon ceased to exist long ago. Thus, for example - Austria ceased with practice of putting the question of literacy in Census questionnaire in 1934. In the forties of the twentieth century, this practice was discontinued in Japan, Denmark, Sweden, Finland, Switzerland and Canada. Immediately after the end of World War II, question on literacy was omitted in the Netherlands, Czechoslovakia, Great Britain, Norway, Luxembourg, Australia and some other countries.

Tendency of decreased participation of illiterate population is evident, but also different if it is observed by gender.



*Source: Calculation of the corresponding author according to the data in Montenegro, 1961-2011.

Figure 1. Percentage of the participation of illiterate people according to gender in total number of population aged 10 and over in Montenegro, 1961-2011.

In the fifty year period, illiteracy rate was reduced both in men and women. The share of illiterate women in the total number of illiterate population aged 10 years and over was significantly higher than the proportion of men and it was at a level of about 80%. The number of illiterate women decreased by approximately 54,593 (reduced from 61,183 to 6,590) and men by about 13,626 (reduced from 15,185 to 1,559). Analysis of illiteracy by gender shows that a social status of women was lower than the position of men. Women acquired all necessary knowledge on the basis of direct personal experience or by inheritance from her mother, grandmother, sister. Therefore, it is no wonder that women in traditional village were mostly illiterate (Isić, 2008). After World War II there was a change in the educational structure of women which was a result of the development of non-agricultural activities. Disadvantage of agriculture and peasantry led to the fact that parents had decreasingly wanted their children to be engaged in agriculture (Novak, 2010). According to the survey, which was

conducted on three generations of farmers, none of the participants would have wanted their daughter to be interested in agriculture, and only 8.4% in 1968, 6.6% wanted their son to be involved in the field of agriculture in 1978 and 10.8% in 1988 (Martić, 1988).

Powerful and rapid pace of industrialization in Montenegro influenced the distribution of population in the agricultural and non-agricultural. This process in Montenegro was very dynamic, and this indicates the fact that in 1953 the share of urban population in the total population amounted to 14.2% and 34.2% in 1971. In this period, Montenegro recorded the highest growth in population compared to the other republics. A greater degree of urbanization and other benefits offered by city attracted the rural population. Many people had seen education as an opportunity to move towards the city, and some were engaged in industry and other branches. A huge role in professional education of farmers had a village primary school. With reform of 1952, a 8 year primary became a mandatory starting school. Petak (1988) points out that secondary, higher schools and universities that educated population for the field of agriculture were accounted as a form of deagrarisation and depopulation. Rule is that all those who want to educate themselves leave countryside and farms and thus seek a better future in the towns and non-agricultural activities. For these reasons, the older segments of the population remained in rural areas and those who are prevailing in the group of illiterate population (Table 4).

Table 3. Rate of illiterate population aged 10 and over in Montenegro based on age, Census 1961-2011 expressed in %.

	1961	1971	1981	1991	2003	2011
Age	21,7	16,7	9,4	5,9	2,35	1,5
10-19 years	3,0	2,7	1,2	0,8	0,66	0,8
20-34 year	10,33	3,5	1,3	0,9	0,52	0,7
35-64 years	37,23	26,2	11,1	5,4	0,98	0,7
65 and over	60,3	58,9	45,9	33,0	11,75	6,1
Unknown		-	21,7	5,7	6,3	12,9

*Source: Calculation of the corresponding author according to the data, 1961-2011.

If the illiteracy rate, is observed it is apparent that it is highest among the population aged 65 and over. In the fifty years of the reporting period, the illiteracy rate had been decreasing but it still evident in the age group of 65 and over.

If the illiteracy rate of the population aged 10 and over in Montenegro by gender and age, 1961 to 2011 census is observed, it is apparent that there were more illiterate women than men. Illiterate female population was concentrated in the age group of 65 and over, which was partially due to the unfavourable position of women in the past (Table 4).

0.3

0.4

Monteneg	Montenegro by gender and age, 1961-2011 Census.											
	19	61	1971		1981 1991		2003		2011			
Overall illiterate population	21	1,7	16	9,40		5,	5,90 2,35		35	1,50		
	M	F	M	F	M	F	M	F	M	F	M	F
10-19 years	5,64	3,0	8,5	3,3	6,5	2,2	7,4	1,7	15	3,5	20,6	5,3
20-34 years	10,22	17,4	5,3	6,2	7,6	3,7	9,8	3,3	14,7	3,8	22,1	8,2
35-64	48,2	55,35	40,7	56,5	28,6	48,0	29,9	38,4	26,2	16	31,1	19,1
65 and over	36,0	24,31	45,5	34,0	55,7	48,0	51,7	55,4	41,48	74,28	25,9	67,0

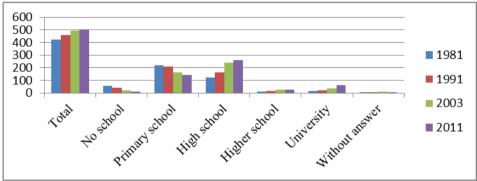
Table 4. Percentage of illiterate population aged 10 and over in lontenegro by gender and age, 1961-2011 Census.

Source: Calculation of the corresponding author according to the data, 1961-2011

1.0

1.6

"Educational attainment" is used besides a literacy level as an indicator of educational structure. Table 5 shows the population aged 15 and over by educational attainment in Montenegro, 1981-2011. Data indicate the growth of the population aged 15 and over in the fifty year period, the largest growth was recorded in the census period of 2011 and it amounted to 18% compared to the base year of 1981.



*Source: Calculation of the corresponding author according to the data, 1961-2011.

Figure 2. Population aged 15 and over by educational attainment in Montenegro, 1981-2011, (in thousands)

Data show that there had been a continuously growing number of people with completed secondary, higher and university education. A change in structure of the population by educational attainment or increasing the number of people with higher education affected the qualification structure and allowed a change in the structure of the population by occupation. Education is one of the major changes in the social position of the individual. Table 5 shows the trend of the

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unknown-2

² There are no term "unkown" in source documents for 1961 and 1971

population aged 15 and over by educational attainment in Montenegro in the period 1981-2011.

Table 5. Trend of the population aged 15 and over by educational attainment in Montenegro from 1981 to 2011, base index.

Year	Total	No school	Element ary school	High School	Higher school	Univers ity	Without answer
1981	100,00	100	100	100	100	100	100
1991	108,45	69,30	96,75	133,82	143,00	167,22	606
2003	116,26	36,09	73,77	198,71	202,33	267,33	927
2011	118,29	19,27	64,87	216,70	213,33	431,6	226

^{*}Source: Calculation of the corresponding author according to the data, 1961-2011.

Analysis based on the base index (1981 = base) shows a declining trend of population without school and with primary education, and there was a trend of increasing population with secondary and university education. In absolute numbers the largest population finished secondary education. According to the 2011 census, population with completed secondary education increased by 116% compared to the base year of 1981.

Table 6. Population aged 15 and over by educational attainment and

gender in Montenegro, 1981-2011

Seneri III 110110010810, 1701 2011												
Year	Total		No	Primary	High	Higher	Universit	Without				
1 cal			school	school	school	school	у	answer				
	Total	423.763	58.764	217.660	120.105	12.268	13.846	1.120				
1981	Male	207.233	13.803	99.367	75.494	8.111	9.870	588				
1701	Female	216.530	44.961	118.293	44.611	4.159	3.976	532				
	Total	459.577	40.724	210.607	160.735	17.559	23.154	6.798				
1991	Male	225.998	9.328	94.533	92.712	10.787	14.998	3.730				
1991	Female	233.579	31.486	116.074	68.023	6.772	8.156	3.068				
	Total	492.684	21.210	160.571	238.671	24.822	37.017	10.393				
2003	Male	239.322	5.024	65.323	127.621	14.186	21.155	6.013				
2003	Female	253.362	16.186	95.248	111.050	10.636	15.862	4.380				
	Total	501.278	11.324	141.198	260.277	26.170	59.773	2.536				
2011	Male	244.470	2.171	56.916	139.389	15.035	29.630	1.329				
2011	Female	256.808	9.153	84.282	120.888	11.135	30.143	1.207				

^{*}Source: Calculation of the corresponding author according to the data, 1961-2011

Highest growth was recorded at the level of university education and it reached 331 index points. Introduction of compulsory primary education in Montenegro caused a mobility of the population and their desire for further education. If these phenomena are observed in terms of depopulation, it can be said that education constituted a form of indirect transfers from rural areas. It is called "indirect" because those who are educating themselves are leaving agriculture and train to perform some other activities. De facto, young people are getting educated and do not participate in agricultural activities (Puljiz, 2002). In this way, younger and more capable workforce leaves countryside and it results

in numerous groups of older households. City gets superiority over village and becomes a driving force of social and economic change. Data in Table 8 indicate that males are more educated.

In the category of "no schools", prevails female population. According to the 1961 census, its share was at the level of 76.51%, and according to the 2011 census it was at the level of 80.8%. Such phenomena in education resulted that more male workforce was influenced by deagrarisation than female one. There are two causes of such phenomena: 1. rapid industrial development hired more men; 2. there is a traditional suspicion towards a woman leaving a house. Overall increase in the importance of education influenced the changes in the educational structure of rural women, particularly by providing them the opportunity to educate themselves. Unfavourable position of agriculture, led to that in the patriarchal system decided that son remained on the farm and in agriculture and female children was offered education as compensation for not inheriting family property (Korać, 1990).

Table 7. Participation of population aged 15 and over by educational

attainment and gender in Montenegro, 1981-2011

attanment and gender in Wontenegro, 1701-2011											
Year	Total		No schoo l	Primary school	High school	Higher school	Universi ty	Without answer			
	Total	100	13,86	51,36	28,34	2,89	3,26	0,26			
1981	Male	100	6,66	47,9	36,42	3,91	4,76	0,28			
1901	Female	100	20,76	54,63	20,60	1,92	1,83	0,25			
	Total	100	8,86	45,82	34,97	3,82	5,03	1,48			
1991	Male	100	4,12	41,82	41,02	4,77	6,63	1,65			
1991	Female	100	13,47	49,69	29,12	2,89	3,49	1,31			
	Total	100	4,30	32,59	48,44	5,03	7,51	2,10			
2003	Male	100	2,09	27,29	53,32	5,93	8,83	2,51			
2003	Female	100	6,38	37,59	43,83	0,41	6,62	1,73			
	Total	100	2,3	28,16	51,90	5,20	11,92	0,50			
2011	Male	100	0,88	23,33	57,00	6,15	12,12	0,55			
2011	Female	100	3,56	32,80	47,10	4,30	11,73	0,50			

*Source: Calculation of the corresponding author according to the data, 1961-2011.

Data in Table 7 show that men are more educated. The percentage of women with no schooling (not) completed primary school ranges from 75.39% according to the census of 1981 to 36.40% according to the 2011 census. According to census (1981-2011) there is decline of participation of women (without) primary, but it is still high. There is a largest share of the population with secondary education. The percentage of participation of the population with university degrees increases and it ranges between 3.26% according to the census of 1981 to 11.92% according to the 2011 census. There is a lower participation of female population in the structure of the population with university degrees. Contemporary literature emphasizes the importance and role of women in strengthening the rural economy (Babović, Vuković, 2008, Bock, Shortall, 2006, Goverde, de Haan, Baylin, 2004).

Observed indicators of education in the fifty year period specify a tendency of reducing the share of illiterate population, as well as reduction of disparities in literacy of males and females. There is a continuous increase in the number of people with completed secondary, higher and university education. On the other hand, increased level of education has caused some social changes. It is believed that those who study (educated) must become very competent in all phases of the development cycle of the economy and society (Zjalić, 2009).

Positive educational trends have influenced the shift of population from agriculture to other activities, which led to the emptying of rural areas in Montenegro. In comparison with other republics, Montenegro experienced the fastest and greatest transformation. From the perspective of sociological theory, with a decline of illiteracy as of 1961 comes a rapid process of urbanization and reduction of share of the agricultural population in the total population of Montenegro (Table 10). Economic theory holds that the reduction of the share of the agricultural population is a consequence of economic development which increasingly requires a workforce from agriculture.

Table 8. Participation of the agricultural population in the total population of Montenegro in the period 1948-2003.

Year	1948.	1961.	1971.	1981.	1991.	2003.
Participation of the agricultural population in the total population	75,40	48,0	42,60	13,00	7,10	5,3

^{*}Source: Ž. Andrijašević, Š. Rastoder, 2006.

Data on the trend of participation of agricultural population in the total population of Montenegro point to the significant decrease in the observed period. After 1945, as a result of the overall economic development and industrialization of the country, mass migration reduces agricultural and general population in the mountainous area, therefore in 1961 it amounted to an average of about 60% of the total population (Marković, P. 1974). School became the main channel, through which the agricultural exodus occurred. As a result of the outflow of population resulting changes in the demographic structure of rural areas and come up with specific social problems. It was significantly increased "mortality" of production units in agriculture.

Today Montenegrin agriculture is characterized by the aging of the rural population and substantially lower average level of education. More than 44% is older than 55, 65% is older than 45. More than half (55.3%) employed in agriculture completed secondary school, and only 9.1% have completed higher school or university (Agricultural Census, 2010, Structure of agricultural holdings, 2011b.). Taking into account the age and educational structure of farmers, it would be difficult to talk about the professionalization of work on the farm. Professional activity is characterized by systematic rounded theory, social sanctions, the Code of Ethics and a specific subculture (Milošević, 1997).

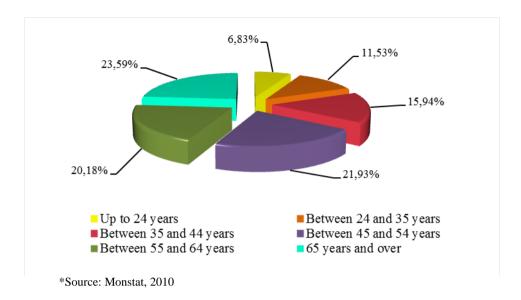


Figure 3. Age structure on family agricultural holdings by age.

Unfavourable age structure on family farms is a result of social and economic factors. New technologies are changing the character of work, status, position of employees, working conditions, new quality of a working man which affects the change in the role and importance of education (Jovanović, 2011). In order for a farmer to be successful and happy he must be professionally trained, because it is the only way to be able to achieve the quality of life and for agricultural to be accepted as a professional orientation. Education of farmers has wider significance than economic objectives and creation of commodity producers. Therefore, education on the one hand a necessary factor in the modernization of agricultural production, on the other hand - represents a certain "danger", because young people use education as a way to "escape from the countryside." Therefore, it is necessary to continue work on improving demographic, social and economic policies toward the village.

CONCLUSIONS

Transfer of population from agriculture to other activities is a result of the development of social division of labour. Reducing the number of inhabitants and demographic depopulation of certain areas is one of the dominant demographic processes in Montenegro after the Second World War. Unfavourable demographic trends have influenced on the development of agriculture in Montenegro. Montenegrin agriculture is characterized by the aging of the rural population and substantially lower average level of education. More than 44% of them are older than 55, 65% are older than 45. More than half (55.3%) employed in agriculture completed secondary school, and only 9.1% completed higher

school or university. According to the sociological theory, one of the reasons of mentioned process is a transfer of farmers into non-agricultural activities. In the fifty years of the reporting period (1961-2011) education indicators indicate a reduction of illiteracy and increase in the participation of citizens with a higher level of education in the total population. In absolute numbers, the highest number of population finished secondary school. Process of education and training has led to the depopulation of rural areas, as well as to the process of deagrarisation. Overall increase in the importance of education influenced the changes in the educational structure of rural women, particularly by providing them the opportunity to be educated.

It is necessary to identify and manage available resources for a successful economic development. Three basic groups of resources that have a large impact on economic development are: population, natural resources and infrastructure. Population is a resource that has a great importance for the further development of rural areas. Education of farmers should be focused on the ability to accept new knowledge, but not to present a possibility of leaving countryside and educating for non- agricultural activities as it happened in the past.

REFERENCES

- Babović, M. Vuković, O.:(2010): Rural women as supporting agricultural household members: position, roles and social rights, UNDP, Belgrade.
- Bock, B., Shortall, S. (2006): Rural gender relations: issues and case studies. UK-USA: CABI Publishing
- Čikić, J. (2012): The education capital of the rural population in Serbia, Agricultural Economics, Novi Sad, br.53-54, p.53
- Clark, C. (1957): Conditions of Economic Progress, London
- Goverde, H., Baylin, M.: (2004): Power and gender in Europen rural development. UK-USA: Ashagi
- Isić, M. (2008): A peasant woman in Serbia in the first half of the 20th century. Belgrade, the Helsinki Committee for Human Rights in Serbia, p.49-70
- Jovanović, N. (2011): Education in Transition. Culture policies, Year 8, No. 15, p. 335-340
- Koković, D. (2009): Society and educational capital, Meditteran publishing, Novi Sad
- Korać, M. (1990): Integrated Rural Development and scope of education of rural women. Matica Srpska, Gazette for Social Science, no.90, p.121-130
- Maksimović, G. (2011): Demographic factors of local economic development in the Republic of Serbia, Agricultural Economics, no. 49-50, Novi Sad, p.52-53
- Marković, P. (1974): Changes in economic and social structure of the population and workforce in mountainous region of Yugoslavia, Agriculture and Forestry, XX, 4, Titograd, p. 89
- Martić, M. (1988): Perception of social position and "occupation" of farmers, Rural Sociology, no. 101-102, Zagreb, p. 333-345.
- Mendras, H. (1986): Peasant Society: Elements for a theory of the Peasantry, Globus, Zagreb, p. 62-65
- Milošević, B. (1997): Skill to work, Faculty of Philosophy, Novi Sad, P.249

- Novak, M. (2010): Family and the social status of mothers in the contemporary Serbian village on the basis of research in the area of AP Vojvodina (Master's thesis), Faculty of Philosophy, Novi Sad
- Petak, A. (1988): Yugoslav peasantry and education in the era of Scientification, Rural Sociology 27, Zagreb, p. 239
- Petty, R., Guthrie, J. (2000): Intellectual capital literature review: Measurement, reporting and management. Journal of Intellectual Capital, Vol.1. Iss.2., P. 155-176
- Puljiz, V. (2002): Forms and consequences of deagrarisation in our village, Rural Sociology, no. 3-4, Zagreb, p.367-385
- Statistical Office of Montenegro MONSTAT Montenegrin Statistical Yearbook, 1989, Titograd.
- Statistical Office of Montenegro MONSTAT Montenegro Montenegrin Statistical Yearbook, 2011, Podgorica, 45
- Statistical Office of Montenegro MONSTAT Montenegrin Statistical Yearbook 1984, Podgorica
- Statistical Office of Montenegro MONSTAT Montenegrin Statistical Yearbook, 2012, Podgorica, 45
- Statistical Office of Montenegro MONSTAT Population projections of Montenegro to 2060, p. 62
- Škara Lj. (1972): Illiteracy long companion of social and economic development of the Republic of Serbia, p. 84, zaprokul.org.rs/pretraga/19_6.
- Vujošević, N. (1990): Changes in the old rural family in Montenegro, SANU, Belgrade-Nikšić, book DLXXXVII, p.91
- Vukčević, R. (1963): The agrarian population of Montenegro as a factor in the choice of investments in agriculture, our agriculture and forestry, Titograd, No. 4, p.1-14
- Statistical Office of Montenegro MONSTAT (2011b): Agricultural census 2010,
- Structure of agricultural holdings, Podgorica, Montenegro
- Zjalić. I. M. (2009): Human resources and their ability to be engaged in the development of economy and society, International Problems, 61 (1-2), p. 92-111.