

Экономические науки

UDC 33

REVIEW ON DEMOGRAPHIC CHANGES IN THE AGRICULTURAL POPULATION OF MONTENEGRO, THE STRUCTURE OF AGRICULTURAL LAND AND ECONOMIC DEVELOPMENT

“The further backward you look,
the further forward you can see”
(Winston Churchill), according to
Spolaore and Wacziarg (2012).

G. Rajović, International Network Center for Fundamental and Applied Research (Sochi, Russia)
ATINER based on Serbia (Serbia),
e-mail: dkgoran.rajovic@gmail.com

J. Bulatović, College of Textile Design, Technology and Management (Belgrade, Serbia),
e-mail: jelisavka.bulatovic@gmail.com

Abstract. Dramatic demographic changes through which in recent decade's passes Montenegrin society, the consequences arising from the new realities require a serious socio-political engagement. Process of population aging, that began the seventies of the 20th century, represents a significant problem. The process of demographic change was accompanied by an internal migration to major urban centers, primarily Podgorica and Montenegrin coast, leading to emptying the interior of Montenegro. Unfortunately, this development of the population structure of Montenegro opens a series of questions and challenges that would the creators of the future you should put high on the scale of its priorities. In this text we will point out on change of total number of citizens of Montenegro according to the base and chain indexes of 1921 - 2011 and population in Montenegro 2016 - 2091 (cohort model projections).

Keywords: Montenegro, demographic changes, demographic development.

Reflections on agriculture, its importance and promotion, undoubtedly among the oldest forms of economic and geographical thought, and even social thought in the broadest sense at all. This is quite understandable when one bears in mind that this is a farming area of social production, which is the first, and for a long time and the only man stretched resources for life. So the emerged the fact that from the earliest written records of human thought in general, agrarian economic thought occupies a very important place (Lutovac, ***).

Montenegro is a rural country (40% of the population lives in the countryside, and the total number of farms is 48.870). Primary production (see see Rajović and Bulatović, 2015; Rajović and Bulatović, 2015) is largely extensive with fragmented holdings and relatively low level of marketability of production. It is evident that the absence of specialization in a number of agricultural products and highlighted the lack of competitiveness in price, compared to neighboring countries and EU member states. Limiting factors joining the Montenegro in EU external: national protectionism; overproduction of food in industrialized countries - sufficiency; low purchasing power of consumers and the internal low level of subsidies for production and exports, technological backwardness of primary production and food industry, poor competitiveness in exports, the absence of export marketing concept, low educational level of producers (Jovanović, ***).

It is a fact that the population aging process is more than just a demographic change (see Rajović and Bulatović,2015; Rajović and Bulatović, 2016). It influences a whole range of social and natural spheres and therefore requires the attention of thorough studies regarding agricultural. In the course of finding appropriate measures to “fight” against aging, an acknowledgment and deeper understanding of the relationship between the aging process on the one side and the social, economic and natural changes on the other side are of great relevance, particularly in the agricultural context (Pantić and Miljković,2010).

Table 1. Change of the participation of agricultural populations in the total population of Montenegro, 1948 -2003 (%)

Year	1948.	1961.	1971.	1981.	1991.	2003.
Participation of agricultural population in total population	75.40	48.0	42.60	13.00	7.10	5.30

Source: Despotović et al (2015) *according to Andrijašević and Rastoder (2006).*

Participation of agricultural population in total population Montenegro in the observed time the decreased with 75,40% (1948) on 5,30% (2003). Despotović et al (2015), citing research Marković (1974) and Vujošević (1990) indicates that after 1945, as a result of the overall economic development and industrialization of the country, agricultural and general population in the mountainous area is reduced due to mass migration, so in 1961 it accounts to about 60% of the total population. The process of increasing of non-agricultural and decreasing of agricultural population was also followed by the process of enlargement of urban and reduction of rural population. In comparison to the other republics of the former Yugoslavia, Montenegro in the period 1953 - 1971, recorded the highest growth of the urban population in relative terms.

Table 2. Share of employees in agriculture and forestry in total number of employees

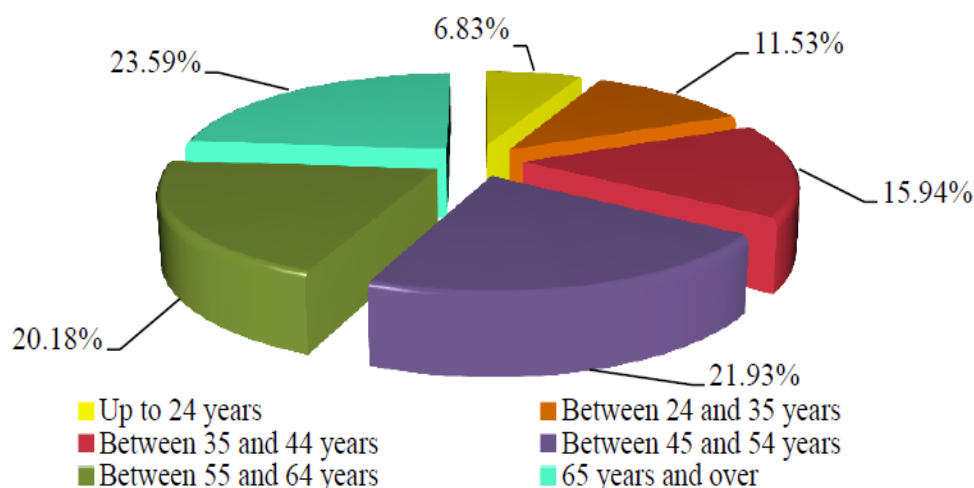
Indicator	2003	2011
Total employees	142.679	161.742
Agriculture and forestry	3.926	2.347
% share of agriculture in total no. of employees	2.8	1.5

Source: Fabris and Pejović (2012).

The table shows that since the census in year 2003 share of employees in agriculture, forestry and water management in total is decreasing, which represent a confirmation that the part of agricultural population sought employment in other industries that have developed quickly in the observed period.

According to Jöhr (2012) recent surveys on rural demographics in the US, Japan and the European Union reveal an ever-aging farmer population. The average age of farmers in the US is now 58 years, and 67 years in Japan. More than one third of European farmers are older than 65 - technically retired, whereas less than 5% of farmers in analyzed countries are younger than 35-years - old! All OECD2 countries show similar trends.

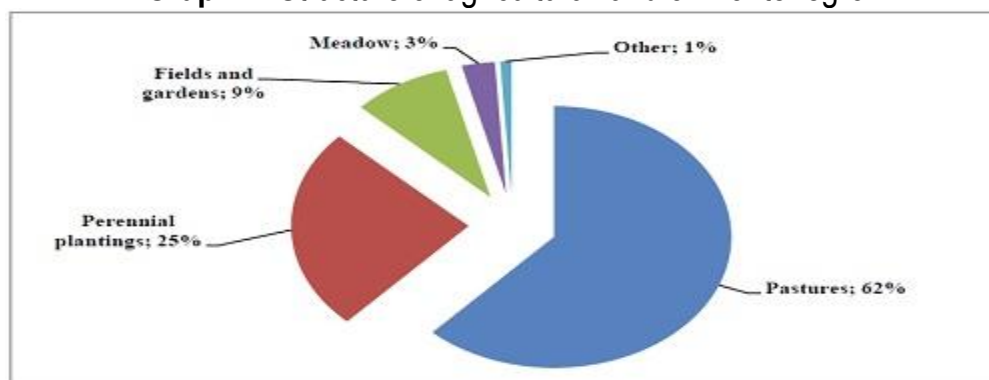
Graph 1. Labour force family agriculture holdings



Source: Despotović et al (2015) according to agricultural Census 2010, Structure of agricultural holdings by municipalities.

Graph 1 shows labour force on family holdings Montenegro, according to age (to 24 years 6.83 %, between 24 and 35 years 11.53 %, between 35 and 44 years 15,94 %, between 45 and 54 years 21.93 %, between 55 and 64 years 20.18 %, 65 years and over 23.59 %). According to Božović and Đurašković (2014) when the human factor engaged in agriculture is concerned, old population and elderly households prevail, which is a serious threat to the development. On the total 48.824 holders of family agricultural holdings, the most of holders (16.228) are aged 65 years and over, with the share of 33.24 %.

Graph 2. Structure of agricultural land of Montenegro



Source: Božović and Đurašković(2014).

Agricultural land Montenegro is the basic fixed capital in agriculture, and it comprises around 518 ha or relatively 0.84 ha per capita. This resource takes part with 38 % in total area of

Montenegro, which is very important, especially if we take into account agricultural land per capita. It is obvious that the participation of pastures prevails with over 60% and they are not used enough, and as a consequence the total production potential is not enough used as well. If we consider the fact that the agricultural production is taking place within 48.824 agricultural households, whereas only 46 subjects of agricultural production, we undoubtedly have a big number of households with small potentials, i.e. scattered homesteads which excludes rational production, especially with regards to the volume of economy. On the other hand, these households grow various crops and livestock (Božović and Đurašković, 2014).

Farming is about business, not romance, and it must become an attractive life-choice profession for farmers, smallholders and larger commercial producers alike. The economic and social attractiveness of farming are implicitly the main pillars of such choices. Sustainable intensification of farming systems without polluting, wasting and destroying natural resources, may offer one answer to farming's future by providing an appealing income and social recognition. Nonetheless, new production systems on sustainable agriculture are much more knowledge intensive. Farmers need to learn how to handle additional technologies, management methods, risk avoidance plans, financial literacy and environment protection practices, to list just a few (Jöhr, 2012).

Table 3. Participation utilized agricultural land in the overall territorial
the surface of the earth - the EU and the Montenegro

Total use agricultural land	The total territorial surface	
%	1000 ha	
41.5	441.412	EU countries
28.4%	6.456	Latvia
32.6%	32	Malta
44.7%	7.887	Czech Republic
45.5%	11.100	Bulgaria
44.7%	3.053	Belgium
28.9%	13.198	Greece
61.2%	4.310	Denmark
47.3%	35.713	Germany
9.3%	4.523	Estonia
59.6%	7.029	Ireland
45.1%	50.537	Spain
55.1%	63 795	France
44.3%	30.132	Italia
13.4%	925	Cyprus
41.2%	6.530	Lithuania
50.5%	259	Luxembourg
62.2%	9.303	Hungary
50.1%	3.736	Netherlands
37.8%	8.387	Austria

50.5%	31.268	Poland
40.1%	9.191	Portugal
59.8%	23.839	Romania
8.3%	2.027	Slovenia
39.2%	4.094	Slovakia
6.8%	33.842	Finland
71%	24.410	UK
7%	45.030	Sweden
16%	1.381	Montenegro

Source: Šarović (2013) according to census of agriculture 2010 „Pocketbooks „Agriculture and fishery statistics edition“ (2011).

If we make a comparison with the EU countries, we see that in Montenegro (whose territorial area of the smallest countries in Europe) are significantly smaller amount of utilized agricultural land in the total territorial area of the country than in most other countries (modest 16 %). It was also noted that participation of the total utilized agricultural area in the total territorial area of the observed countries varies, as in Sweden and Finland is about 7 %, while in the UK 71 % share of utilized agricultural land in the total territorial area. Proportionally and family farms in Montenegro is dominated by only small land holdings. The largest share of (31.58 %) are holding of 0.10 - <00.50 ha of agricultural land use. In the context of the size structure of farms over half (54.07 %) of the agricultural land used is from 0.10 to 1.00 ha. Average family farm has 6.0 ha of land available, as long has 4.6 ha of agricultural land use (Šarović, 2013).

Agriculture and rural development are an integral part of the overall development goals and the regional development strategy. However, Montenegro does not fully use its production potential and the available recourses for strengthening the agricultural sector. The Montenegrin agriculture priorities regarding the defined strategic development sectors should focus on: the growth of measures which finance direct income and production support, a more intensive investments to increase the competitiveness, rural development (see Rajović and Bulatović, 2016) and the IPA infrastructure, the establishment and accreditation of the Agency for Agricultural Payments, the introduction of new food safety standards, agricultural registers and data bases, the Farm Accounting Data Network (FADN), the LFA Regulation implementation, new employments...(Đurović and Bulatović, 2014).

Finally, we point to the economic thinking Vukotić (***), in order to determine the economic lagging of Montenegro in relation to the region, developed countries, the European average? For simplicity we will take just one indicator: income per capita.

Table 4. Per capita income in 2008 (in EUR)

Country	2008
Montenegro	5.215
Slovenia	18.468
Portugal	15.656
Luxembourg	75.780

EU 27	25.134
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Source: Vukotić (***).

The data in Table 4 indicate the ratio of income per capita inhabitants between Montenegro, the most developed countries of the former Yugoslavia (Slovenia), the least developed countries /old/ EU 15 (Portugal), the most developed EU countries (Luxembourg) and the EU average. From the standpoint of economic development issue that arises from the comparison of these data is how much time is needed to Montenegro, at a given rate of GDP growth should, under certain assumptions, catch up with some of these countries? In order for Montenegro 2025 had a per capita income inhabitants on present level of income in these countries, the growth rate in Montenegro got to be looks like this - Table 5 (Vukotić, ***).

Table 5.

In order for 2025, Montenegro had GDP per capita	The average annual growth rate - "rate achieving "Montenegro 2009-2025
Slovenia (18.468 EUR)	7.72%
Portugal (15.656 EUR)	6.68%
Luxembourg (75.780 EUR)	17.05%
EU 27 (25.134 EUR)	9.69%

Source: Vukotić (***).

Empirical studies of developing economies during the last century or so have indicated that GDP per capita has tended to be characterized by spurts of high growth, with periods of stagnation and decline (Pritchett 2000; Easterly 2006; Pinkovski and Sala - I - Martin 2014). Fouquet and Broadberry (2015) suggest that historical patterns of economic growth and decline in preindustrial Europe may have been broadly similar to those of present-day developing economies-another area of ongoing and future research. Finally, many contending theoretical explanations for past GDP per capita start from the assumption of stagnant economies followed by an economic take-off. Such theories need adjustment to take account of the new evidence. For all of these questions, and many others, the next few years promise exciting advances in our understanding of very long - run economic growth

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Аннотация. Резкие демографические изменения, через которые в последнее десятилетие прошло черногорское общество, последствия, возникающие в связи с новыми

реалиями, требуют серьезного социально-политического взаимодействия. Процесс старения населения, который начался с семидесятых годов 20-го века, представляет собой серьезную проблему. Процесс демографических изменений сопровождался внутренней миграции в крупные городские центры, в первую очередь, в Подгорицу и на черногорское побережье, что ведет к опустению центральной части Черногории. К сожалению, такое развитие структуры населения Черногории ставит целый ряд вопросов и проблем, которые создатели будущего должны поставить высоко на шкале приоритетов. В этом тексте мы укажем на изменение общего числа граждан Черногории в соответствии с базовыми и цепными индексами 1921 - 2011 гг. и населения в Черногории 2016 – 2091 гг. (модели проекции контингента).

Ключевые слова: Черногория, демографические изменения, демографическое развития.

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Information about the authors

Dr Goran **Rajović**. International Network Center for Fundamental and Applied Research, Russian Federation & Academic Member ATINER based on Serbia, Serbia.

MSc Jelisavka **Bulatović**. College of Textile Design, Technology and Management Street Starine Novaka 24, Belgrade, Serbia.

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