

## **IMPORTANCE OF AGRICULTURE IN MONTENEGRIN ECONOMY**

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### **Abstract**

As the oldest economic sector, which was root for other industries, the level of agricultural development has always been a measure of the community development. The importance of agriculture in economic development, depending on the level and intensity of development of a particular area is constantly changing. In the overall development, non-agricultural industries develop faster than agriculture. This results with an increasing reduction of the relative importance of agriculture. However, this does not diminish the absolute importance of agriculture as the primary economic activity. Agriculture has a significant impact on economic growth, especially in the economies which are developing rapidly. Otherwise it becomes a barrier to economic development. In determining the importance of agriculture in the national economy different methodological approaches can be used. Through the analysis of relevant macro-economic indicators, the paper will analyze the role of agriculture in the economy of Montenegro.

**Keywords:** *Agriculture, economy, multifunctionality, rural development*

### **Introduction**

Agriculture is one of the key sectors of Montenegrin economy, and represents a major source of employment and income generation, especially for people in the northern mountains region, whose income generation possibilities are limited.

The surface of agricultural land in Montenegro takes 516 070 ha or 37.4% of the total land area of Montenegro. It makes 0.83 ha of agricultural land per capita, and this represents an important resource for development of agriculture. However, total arable land in Montenegro is 190 000 ha or 0.30 ha per capita. The largest share of agricultural land is pasture and grassland, which together make up 88%. While the share of arable land (fields and gardens) is only 9%, and the orchards and vineyards take the remaining 3%.

Even though the small family farms dominate, with average size of a holding 6.3 ha of available land, Montenegro is ahead of its neighbors, including some of EU member states. Regarding the size of used land per holding, which is 4.6 ha, Montenegro is close to Slovenia (6.5 ha), Bulgaria (6.3 ha), Poland (6.5 ha) and Italy (7.5 ha). However, Montenegrin agriculture is characterized with predominantly small holdings with areas of less than 2 ha (73%). On the other hand, more than 62% of used agricultural land belongs to holdings, whose size exceeds 20 ha.

Total number of agricultural holdings in Montenegro is 48 870, 46 of which are business entities, and the remaining 48 824 are family holdings. Total economic value of agricultural holdings in Montenegro is €125 817 765 or in average €2 574 per agricultural holding. Average economic value of family holdings is €2 239 or € 513 per ha of family holding. Objective of this paper is to analyze role of agriculture in the economy of Montenegro using relevant macro-economic indicators.

## Material and Methods

Comparative historical method has been used for the analysis of the role of agriculture for economic development of a country while statistical method has been used for analysis of importance of Agriculture for Montenegrin economy. The analysis of the relevant macroeconomic indicators has been implemented by studying secondary data on the basis of existing documents and statistical data.

## Results and Discussion

Contribution of agriculture in the national economy can be demonstrated through different indicators. In the literature, following indicators are stated as the most important:<sup>1</sup>

- The share of agriculture in total population and the share of active agriculture in total economic active population;
- The share of agriculture in the GDP;
- The importance of agriculture in the foreign exchange;
- The share of investment in agriculture in the overall economic investments;
- The share of expenditure related to food in total individual consumption of households.

### *The share of agriculture in total population and the share of active agriculture in total economic active population*

The share of agriculture in total population decreased significantly over the last 20 years. The decrease in share of agriculture in total population first started slowly, from 47% in 1961 to 35% in 1971. It then significantly declined on 7% in 1991, and further on 5.3% in 2003. According to the agricultural census, in 2010 Montenegro had 48 870 agricultural holdings, while the census of population conducted on 2011 does not provide clear information about the agricultural population.

According to employment data, business entities in area of agriculture employ a relatively small percentage of people compared to total number of employed in Montenegro, only 1.5% in 2012.<sup>2</sup> However, according to 2010 agriculture census data, on 48 870 agricultural holdings, there are 98 949 persons working, whereby 98 341 (99.4%) work on family agricultural holdings. Workforce in family holdings is made of head of the household, family members, as well as other persons who are regularly employed (not family members). In average they have 0.47 annual work units per holding which makes 46 473 annual work units in agriculture.<sup>3</sup> The average number of workers per holding is below one person per holding in many EU countries, while average in EU is 0.8.

Montenegrin agriculture is characterized by unfavorable structure of employees, from the age and education viewpoint. More than 44% of them are older than 55, while 65% are older than 45 years. Majority of people employed in agriculture have completed high school - 55.33%, while only 9.11% have completed either vocational training or university.

### *The share of agriculture in the GDP*

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<sup>1</sup> Božić, D; Bogdanov, N; Ševalrić M (2011), , 17.

<sup>2</sup> Monstat, This number includes only legal entities whose main activity (statistically) is agriculture. Number of employees is received on the basis of the records kept by the Central Register of Tax Administration.

<sup>3</sup> The annual work unit (AWU) is used as the equivalent of employment in agriculture and represents the time spent working in agriculture, excluding household works.

After the Second World War, Montenegro was an underdeveloped agrarian country where agriculture had the highest share in domestic product and national income. However, in the post-war period, a relatively rapid economic growth has been achieved, primarily due to the orientation on industrialization and infrastructure construction. According to this orientation, industry takes over the leading position from agriculture during 1963. The share of agriculture in GDP was 48.4% for the year 1947, 1953 - 38.5%, 1962 - 24.3% while on 1972 it fell on 15.2%.<sup>1</sup> Decreasing trend continued in the following years. Namely, on 2012 the share of agriculture in national income has almost halved in comparison to 1972 and was 7.37%.<sup>2</sup>

In 2012, Montenegrin GDP was EUR 3 149 billion, and sector of agriculture (together with forestry, hunting, and fishing), accounted for EUR 232 million or 7.4% of the GDP. Processing industry, taking into account all processing sectors not just food processing, accounts for EUR 135 million or 4.3% of the GDP. Agriculture contributes to GDP 72% more than the processing industry.

Table 1: The share of agriculture and processing industry of the GDP in the period 2003-2012<sup>3</sup>

Year	Agriculture (%)	Processing industry (%)
2003	10.76	9.50
2004	9.69	9.31
2005	8.76	8.19
2006	8.29	7.66
2007	7.24	5.41
2008	7.47	5.40
2009	8.28	4.89
2010	7.72	4.66
2011	7.94	5.03
2012	7.37	4.30

Compared with EU countries, the share of agriculture in GDP is high, taking into account that in EU-27 the average for year 2011 was 1.7%. In some countries of the EU-15 the share of agriculture in GDP is even lower than 1%.

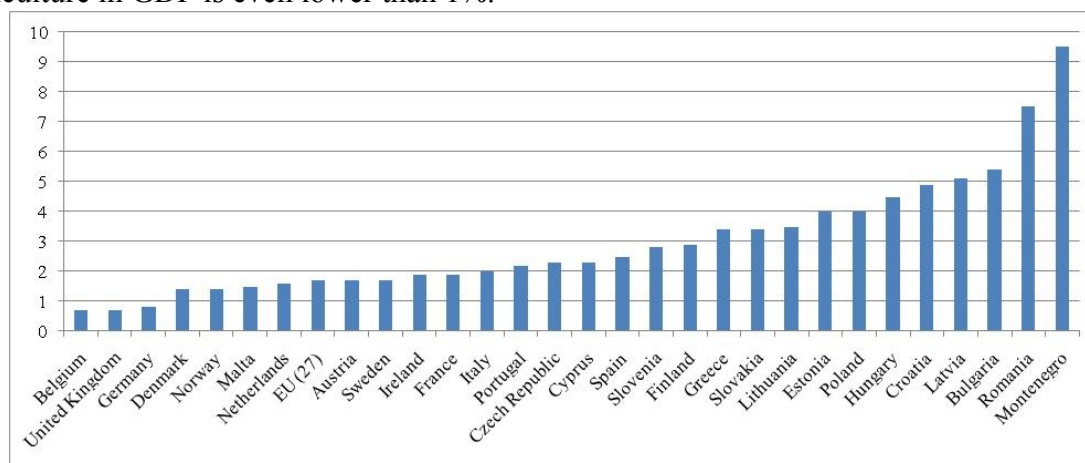


Figure 1: Share of agriculture in GDP in the EU countries and Montenegro – 2011.<sup>1</sup>

<sup>1</sup> Kalezić, Ž (1976), , 32.

<sup>2</sup> Monstat

<sup>3</sup> Monstat

The structural characteristic of Montenegrin food production is a higher share of primary agriculture in gross domestic product, compared to the food processing sector.

This indicates a low level of finalization of agricultural products, a significant share of the self-supply of rural population with food, as well as the selling of agricultural products through unregistered trade channels.<sup>2</sup>

*The importance of agriculture in the foreign exchange*

Food and agricultural products play an important role in foreign trade. Montenegro is a net importer of food products. Export of food, beverages and tobacco in 2012 was 53.1 million euro while the import value of 421.6 million euro.<sup>3</sup> Foreign trade of food and agricultural products accounted for 21.71% of total trade of Montenegro.

In the period 2005 to 2012 export of food and agricultural products increased by 18% while in the same period, import increased by 136%. Coverage of import of food and agricultural products with export decreased from 25.22% to 12.62%.

Table 2: Trade balance of food and agricultural products<sup>4</sup>

Year	Import of food and agricultural products (000 €)	Export of food and agricultural products (000 €)	Trade balance of food and agricultural products	Coverage of import of food and agricultural products with export (%)
2005	45 054	178 616	-133 562	25.22
2006	36 492	218 616	-182 124	16.69
2007	37 070	298 396	-261 326	12.42
2008	40 699	405 460	-364 761	10.04
2009	40 158	379 713	-339 555	10.58
2010	45 039	388 139	-343 100	11.60
2011	50 662	417 707	-367 045	12.13
2012	53 195	421 649	-368 454	12.62

A small number of exported products highlight the problem of the competitiveness of domestic producers in terms of food safety, quality, price competitiveness and the quantities that could be distributed on international markets. Prices in agriculture are relatively high and thus quite cost uncompetitive.

*The share of investment in agriculture in the overall economic investments*

Despite the fact that agriculture is recognized as the strategic priority of Montenegro, level of investment is not in line with the dynamic of investment in other industries. The amount of investment in fixed assets in agriculture in the last ten years shows no significant differences and in the year 2012 amounted to 5.82 million euro. In absolute terms, the value of investment remains on almost the same level, while relative share of the total investment is significantly reduced from 2.79% to 1.33%.

<sup>1</sup> Eurostat

<sup>2</sup> Government of the Republic of Montenegro, Ministry of Agriculture, Forestry and Water Management (2006), *Montenegro's agriculture and European union, Agriculture and Rural Development Strategy*, Podgorica, 9.

<sup>3</sup> Monstat - according to the Standard International Trade Classification

<sup>4</sup> Idem

Table 3: Total investments in fixed assets in the Montenegrin economy and the share of investment in agriculture<sup>1</sup>

Year	Total investment (000 €)	Investment in agriculture (000 €)	Share of investment in agriculture in total investments (%)
2003	213 620	5 965	2.79
2004	292 903	5 709	1.95
2005	331 573	10 900	3.29
2006	411 044	7 340	1.79
2007	594 102	8 573	1.44
2008	724 640	9 391	1.30
2009	618 422	8 577	1.39
2010	561 587	5 099	0.91
2011	415 395	6 696	1.61
2012	436 548	5 827	1.33

*The share of expenditure related to food in total individual consumption of households.*

Despite a certain decrease in recent years, food expenses have a high share in total expenditure of individual consumption of the population of Montenegro. Often, about half of the households' budget is being used on the purchase of food, beverages and tobacco.

The values of these indicators are significantly higher compared with those of economically developed countries. Average consumption in the EU in 2011 was 16.4%.<sup>2</sup> This is a result of the low level of real purchasing power of the population of Montenegro.

Table 4: The share of expenditures on food, beverages and tobacco in total for personal consumption<sup>3</sup>

Year	Total (€) used resources <sup>4</sup>	Share of expenditures for food beverages and tobacco (%)	Total (€) used resources	Share of expenditures for food beverages and tobacco (%)	Total (€) used resources	Share of expenditures for food beverages and tobacco (%)
	Montenegro		Rural area		Urban area	
2005	469	46.48	423	53.90	495	43.03
2006	453	46.58	405	51.60	482	43.78
2007	560	41.96	499	46.49	595	39.66
2008	638	42.16	564	48.40	682	39.00
2009	587	41.06	458	47.60	665	38.20
2010	564	43.26	450	53.11	632	39.08
2011	557	42.01	443	49.44	625	38.88
2012	581	39.93	494	44.53	626	37.86
<b>Average</b>	<b>551</b>	<b>42.93</b>	<b>467</b>	<b>49.39</b>	<b>600</b>	<b>39.94</b>

There are significant discrepancies in consumption in rural and urban areas of Montenegro. In the last eight years in the urban areas, the average share of spending on food, beverages and

<sup>1</sup> Idem

<sup>2</sup> Eurostat

<sup>3</sup> Idem

<sup>4</sup> Monthly average per household in €

tobacco was 39.94%, while in rural areas is significantly higher at 49.39%. At the same time, the overall resources used in urban areas are 29% higher than those in rural areas. In urban areas €238 out of €600 were spent for food, beverages and tobacco. While in the rural areas €229 out of €467 were spent. This confirms the Engel's law, which states that by increasing overall income, the share of food in total expenditure for individual consumption decreases (at constant prices).

### Conclusion

Considering importance of agriculture for its economic development Montenegro has chosen a concept of sustainable agriculture development, which means achieving a balance between economic development and preserving both the environment and social cohesion. This concept is based on a multifunctional role of agriculture that places agriculture in the wider context of its external effects, rather than just looking at its gross domestic product contributory value. It promotes a multifunctional role of agriculture, with special emphasis placed on rural development. National development plan 2013-2016 also indicates multiple role and importance of agriculture. By that plan the multi-functionality of agriculture is reflected by the high share in GDP, sustainable rural development; environmental function; economic function; support to tourism development; social function; food safety and preserving tradition and cultural heritage in rural areas.

Having in mind above mentioned, it is clear that importance of agriculture for Montenegro is higher than what is its contribution to the GDP as well as it is its contribution to above listed indicators. Moreover, with no agriculture there is no sustainable regional and rural development but also tourism development as a broad range of domestic products enriches the tourism offer and make it unique.

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