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# OTHER PROFITABLE ACTIVITIES ON THE FAMILY AGRICULTURAL HOLDINGS ACCORDING TO THEIR ECONOMIC SIZE<sup>1</sup>

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**Summary:** *In the paper will be emphasized the importance of the other profitable activities (OPA) on the family agricultural holdings, according to their economic size within the territory of Republic of Serbia, with special focus on the Vojvodina Region. Economic size of the agricultural holding is recognized by the value of its total standard output (SA). Other profitable activities related to the agricultural holdings include incomes from agricultural products sale, rural tourism, fishery, etc., whether they are performed on or outside the holding. Other profitable activities that are not related to agricultural holdings include activities that do not consume resources of the holding, but only the labor, as like in previous case they may be carried on, or outside the holding. According to gained results, average economic size of the holding in the Republic of Serbia is 5.939 EUR, while the realized economic value on the family agricultural holdings (FAH) is 4.990 EUR. Census of Agriculture in 2012 showed that the highest average economic size of the agricultural holdings has a Vojvodina Region (12.032 EUR), what is 3,5 times higher than the value achieved in other regions. From the total sum of 631.552 agricultural holdings in the Republic of Serbia (family agricultural holdings (FAH), as well as legal entities (LE) and entrepreneurs) only 78.301 holdings possess DPA that are in relation to the holding (where 21% of them are within the economic class in range of 4.000 - 7.000 EUR). At the level of the Vojvodina Region, in total there were registered 147.624 agricultural holdings (AH), where 8.405 of them have OPA in relation to the holding (13,6% are within the class of economic sizes 100.000 and more EUR).*

**Keywords:** *other profitable activities, family agricultural holdings, Vojvodina Region, Republic of Serbia.*

## INTRODUCTION

Other profitable activity (OPA) that are in line with agricultural holding, include incomes from the sold agricultural products (diary/meat/fruit/vegetable and other agricultural products); incomes from rural tourism; fishery; sale of timber, or processed timber; sale of national handicrafts products; etc. At the same time, these activities can be done on or outside the holding (*Subić & Markovic, 2014*).

Contribution of the other profitable activities on the agricultural holding is reflected through the strengthening of its economic size. The economic size of the holding represents the average monetary value of gross agricultural production at the producer prices (expressed in EUR), in other words value of its standard output. Total standard output represents the sum of all individual standard outputs from all agricultural holdings (crops/multi-year plantations or livestock), which are produced on the holding, expressed in EUR (*Cvijanović et al., 2014*). Obtained value includes sales of agricultural products, the use of the holding, own (natural) consumption on agricultural holding, where excludes out direct payments, taxes, cost of products realization and costs of agricultural products processing.

According to the economic size, all agricultural holdings in Serbia are grouped into 8 economic classes: from 0 to 1.999 EUR; from 2.000 to 3.999 EUR; from 4.000 to 7.999 EUR; from 8.000 to 14.999

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EUR; from 15.000 to 24.999 EUR; from 25.000 to 49.999 EUR; from 50.000 to 99.999 EUR; from 100.000 EUR and higher.

The most of agricultural holdings in Serbia are in a class 0 – 1.999 EUR, more precise 288.559 holdings, or 45,7% of total number of holdings, while the smallest number of agricultural holdings is recorded within the class of economic size 100.000 EUR and more (0,3% of the total number of holdings).

The average economic size (power) of agricultural holding in the Republic of Serbia is 5.939 EUR, while the economic size of the family agricultural holding is 4.990 EUR, or legal entities and entrepreneurs 204.755 EUR. The economic value of legal entities and entrepreneurs is 40 times higher than the value achieved on the family agricultural holdings (FAH), while the economic value of family agricultural holdings at the EU level is 4,5 times higher than the current values achieved in Serbia.

On the territory of Vojvodina Region was recorded the highest economic value of family agricultural holding, and amounts 12.032 EUR, what is two times more than the value recorded on the republic level, or three times more than the value recorded at FAH in the Šumadije Region, or 3,5 times more than values at the FAH in the South and East Serbia Region.

On the other hand, at the level of the Vojvodina Region, it was recorded a significantly lower number of FAH at which were gained the profit from the other profitable activities (OPA), than it is the case in Sumadija and West Serbia Region. The reason is recognized in high polarization of holdings in Vojvodina, whose production structure is based on the capital-intensive production lines (large surfaces under ALU<sup>6</sup> and in possession of LG<sup>7</sup> per employed person, large investments in inputs), what causes the lack of available labor that will be involved in OPA on the holding (*Bogdanov & Babovic, 2014*).

The reason for insisting on intensifying the additional activities on the territory of Vojvodina Region lies in its geographical position, as well as in strategic priorities of local governments, that can improve agricultural production, exchange the goods, to develop a mobility of the labor market, research conduction, and other opportunities, with the main goal to achieve agriculture sustainability (*IAE, 2013*).

Also, the basic characteristics of the holding owners with OPA connected to holding are reflecting in terms of age and sex structure. So, at the republic level, at the total number of households that have a OPA, 86,9% of holding owners are male; where the age structure is like: 4,6% are younger than 35 years; while 33,1% household owners are older than 65 years. On the territory of the Vojvodina Region, there is no significant change in the share of male holding owners (around 85,3%), while in the age structure there are small deviation: 9,9% of owners are younger than 35 years, and 17,3% of them are older than 65 years (*Bogdanov & Babovic, 2014*).

Within the Vojvodina Region the most usual are the holdings specialized in crop production, what is not the case in other Serbian regions, where dominate holdings with mixed plant and livestock production. By creating of opportunities for conduction of other agricultural activities on the holdings, it is possible to expect decrease of unemployment, engagement of labor within the different age groups (which lost their jobs in the process of privatization of companies, as well as during the changes within the structure of the public sector) and permanent fomentation of entrepreneurship in agribusiness in the rural areas (*Tomić et al., 2015*).

## MATERIAL AND METHODS

Analysis of the importance of other profitable activities (OPA) on the family agricultural holdings, according to their economic size, considers the use of available database of the Statistical Office of the Republic of Serbia (SORS), more precisely data published after the Census of Agriculture in 2012. Within the paper will be introduced the results of mentioned analysis realized for the territory of the Republic of

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<sup>6</sup> ALU - Agricultural land in use

<sup>7</sup> LG - Local government

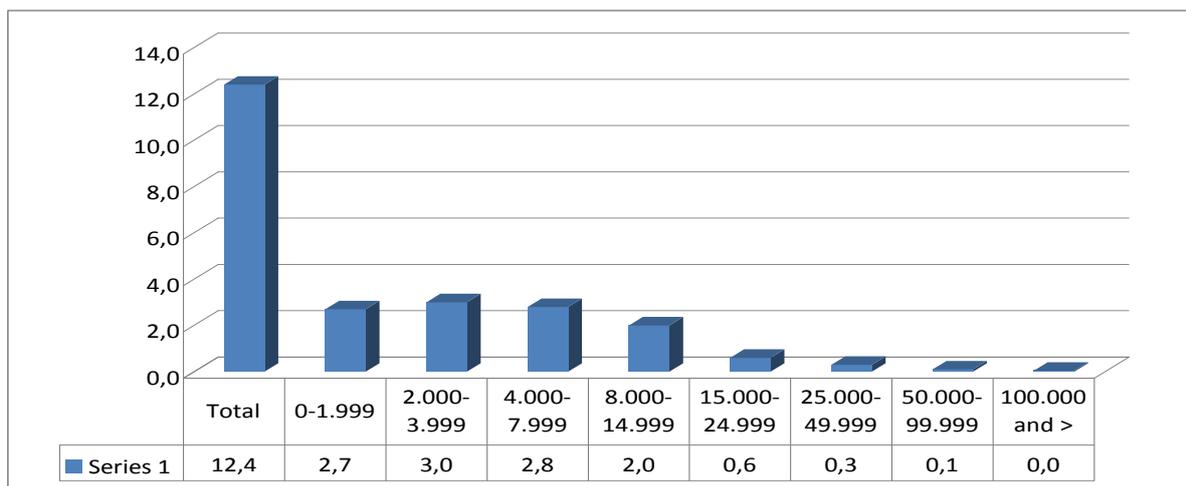
Serbia, with special focus to the Vojvodina Region. Also, presentation of gained results implies a consultation with relevant domestic literature.

## RESULTS AND DISCUSSIONS

In Serbia there are 631.552 agricultural holdings (AH) - family agricultural holdings (FAH), legal entities (LE) and entrepreneurs. Only at 78.301 holdings are recorded the existence of other profitable activities (OPA) that are related to the agricultural holding. Therefore, the share of AH with OPA in connection with holding in the total number of agricultural holdings is around 12,40%.

In relation to the economic power of the holdings, the largest number of AH with OPA in connection with the holdings, belong to the class of holdings with economic size from 4.000 to 7.999 EUR (around 3,8%, or 23.820 households). About 3% of holdings are in the class of holdings' economic size from 2.000 to 3.999 EUR, while 2,7% of them belong to the class of economic size from 0 to 1,999 EUR. At the national level, the smallest number of holdings is in the class of economic size from 100.000 EUR and more (277 holdings, with the share of barely 0,04% in the total number of holdings, or with the share of 14,6% in the total number of holdings that belong to this class of economic size), (*Graph 1.*).

**Graph 1.** Share of AH with OPA connected to the holding in total number of AH in Republic of Serbia, production cycle 2011/2012.



Source: Data base of SORS: Census of Agriculture 2012.

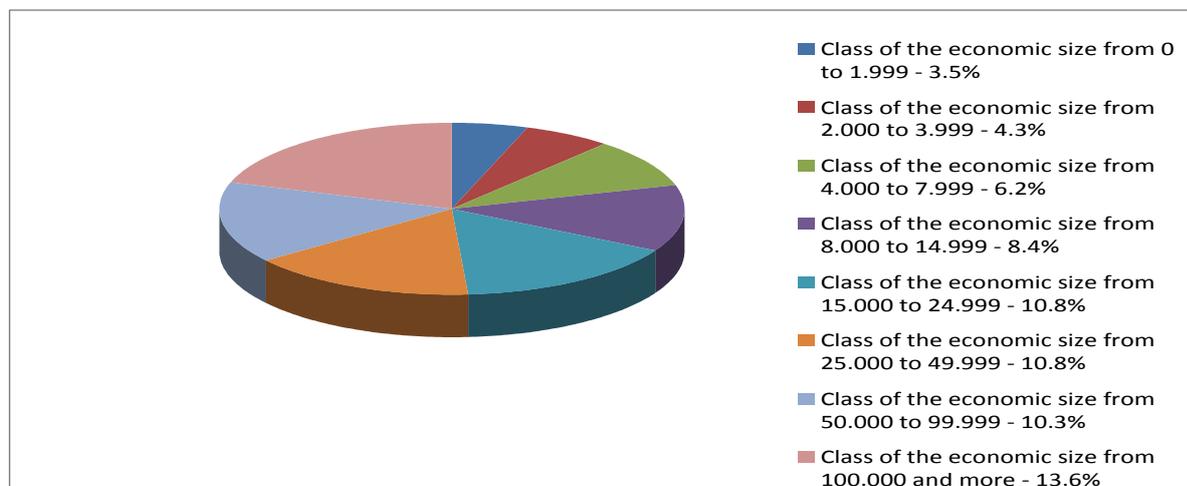
The share of holdings that have other profitable activities related to agricultural holding within the region of Vojvodina is somewhat lower in compare to the other regions in Serbia, what arises directly from the fact of high polarization and high percentage of agricultural land owned by the entrepreneurs.

At the level of the Vojvodina Region, the structure of agricultural holdings with OPA connected with the holding has a following appearance (*Graph 2.*): the largest number of agricultural holdings with OPA in relation to agricultural holding is recorded within the class from 0 to 1.999 EUR (2.122 holdings, with the participation of 3,5% in mentioned class of holdings economic size), while the smallest number of them are in the class of the economic size from 100.000 EUR and more (204 holdings, with the share of 13,6% in mentioned class of economic size).

Economic size classes, from 15.000 to 24.999 EUR and 25.000 to 49.999 EUR were recorded the same share of AH with OPA connected to the holding in the total number of AH on the territory of Vojvodina Region (both, around 10,8% within their classes). Slightly lower share was recorded in the class of economic size of holdings from 50.000 to 99.999 EUR (10,3%). Participation of the AH with OPA in relation with holding in the class from 8.000 to 14.999 EUR is 8,4%, while the classes of holding economic size from 2.000 to 3.999 EUR and from

4.000 to 7.999 EUR were recorded a share of 4,3% and 6,2% in the period (production cycle) 2011/2012.

**Graph 2.** Share of AH with OPA connected to the holding in total number of AH in Vojvodina Region, production cycle 2011/2012.



Source: Data base of SORS: Census of Agriculture 2012.

Compared to other regions in the Republic of Serbia (Belgrade, Sumadija and West Serbia regions, or East and South Serbia regions), Vojvodina Region has the lowest share of AH with OPA relating to holding in the total number of AH (5,7% compared to the total number of AH on the national level), (Table 1.).

In Table 1 will be also presented the structure of agricultural holdings by economic size classes for all Serbian regions, because in this way can be seen all potentials that Vojvodina Region has on its disposal in upcoming period.

Belgrade Region has the highest number of holdings in economic size class from 4.000 to 7.999 EUR (736 agricultural holdings, or share of 12,8% within the structure of mentioned economic size of holdings). In the same class, region of Vojvodina has 1.466 agricultural holdings, or about 6,2%. The smallest number of agricultural holdings with OPA related to agricultural holding, at the level of Belgrade Region, is in the class from 100.000 EUR and more (23 farms, that have share of 35,4% in this class of economic size). Similar case was also recorded in the territory of the Vojvodina Region.

Sumadija and West Serbia regions have the highest number of agricultural holdings with OPA connected to the holding in the class holdings' economic size from 4.000 to 7.999 EUR (or 14.360 holdings, with the participation of 27,1% in entire class of this economic size), as well as the smallest number of holdings within the class from 100.000 EUR and more (41 holdings, with the share of 17,2% in entire mentioned class).

Region of South and East Serbia has the highest number of agricultural holdings with OPA in relation to the holding in class of holdings' economic size from 4.000 to 7.999 EUR (or 7.258 holdings, with the share of 23,4% in entire mentioned class), as well as the smallest number of holdings within the class from 100.000 EUR and more (9 holdings, with the share of 9,2% in this class of economic size).

It is notable that the Vojvodina Region is at the end of list, if in focus is the dispersion of agricultural holdings with OPA related to the agricultural holding.

**Table1.** Agricultural holdings according to the economic size class and other profitable activities connected to the holding, in Republic of Serbia, agricultural production cycle 2011/2012.

Description	Total	Classes of the economic size of holdings (in EUR)							
		0-1.999	2.000 – 3.999	4.000- 7.999	8.000- 14.999	15.000- 24.999	25.000- 49.999	50.000- 99.999	100.000 and more
<b>Republic of Serbia</b>									
<b>AH - total</b>	631.552	288.559	140.641	113.194	52.949	18.261	11.221	4.825	1.902
<b>AH with OPA in line with holding</b>	78.301	16.854	18.687	23.820	12.712	3.724	1.647	580	277
<b>Share of AH with OPA in line with holding in total number of AH by classes</b>	12,4%	5,8%	13,3%	21,0%	24,0%	20,4%	14,7%	12,0%	14,6%
<b>Belgrade Region</b>									
<b>AH - total</b>	33.244	15.930	7.147	5.728	2.882	951	437	104	65
<b>AH with OPA in line with holding</b>	3.903	673	440	736	639	260	108	24	23
<b>Share of AH with OPA in line with holding in total number of AH by classes</b>	8,7%	4,2%	6,2%	12,8%	22,2%	27,3%	24,7%	23,1%	35,4%
<b>Vojvodina Region</b>									
<b>AH - total</b>	147.624	59.941	26.907	23.487	15.717	8.645	7.479	3.947	1.501
<b>AH with OPA in line with holding</b>	8.405	2.122	1.152	1.466	1.313	937	806	405	204
<b>Share of AH with OPA in line with holding in total number of AH by classes</b>	5,7%	3,5%	4,3%	6,2%	8,4%	10,8%	10,8%	10,3%	13,6%
<b>Region of Šumadija and West Serbia</b>									
<b>AH - total</b>	262.940	115.294	61.708	53.008	23.631	6.183	2.334	544	238
<b>AH with OPA in line with holding</b>	43.816	8.480	10.696	14.360	7.754	1.869	515	101	41
<b>Share of AH with OPA in line with holding in total number of AH by classes</b>	16,7%	7,4%	17,3%	27,1%	32,8%	30,2%	22,1%	18,6%	17,2%
<b>Region of East and South Serbia</b>									
<b>AH - total</b>	187.744	97.394	44.879	30.971	10.719	2.482	971	230	98
<b>AH with OPA in line with holding</b>	23.177	5.579	6.399	7.258	3.006	658	218	50	9
<b>Share of AH with OPA in line with holding in total number of AH by classes</b>	12,3%	5,7%	14,3%	23,4%	28,0%	26,5%	22,5%	21,7%	9,2%

Source: Data base of SORS: Census of Agriculture 2012.

## CONCLUSION

Based on the previously presented analysis, next can be underlined:

- In average, economic size of agricultural holding in Serbia is 5.939 EUR, where the achieved economic value on the family agricultural holdings is 4.990 EUR.
- The highest average economic size of AH has the Vojvodina Region (12.032 EUR), or 3,5 times higher value compared to the results gained in other regions, although there is recorded a significantly smaller number of family agricultural holdings that make profits from the other profitable activities than this is the case in Region of Sumadija and West Serbia.
- At the level of the Vojvodina Region, it was recorded a 147.624 agricultural holdings (AH), where 8.405 of them are AH with OPA in line to the holding (where 13,6% of them are within the class of economic size 100.000 EUR and more).
- After creation of the opportunity for other agricultural activities on the holding (increase in the number of households with OPA), it can be expected higher involvement of the population of all age groups, as well as decrease of unemployment, strengthening of agribusiness activities in rural areas and dispersion of activities at holding.

## BIBLIOGRAPHY

1. **Bogdanov, N., Babović, M. (2014):** Radna snaga i aktivnosti poljoprivrednih gazdinstava, in: Poljoprivreda u Republici Srbiji, SORS Belgrade, p. 61.
2. **Cvijanović, D., Subić, J., Paraušić, V. (2014):** Poljoprivredna gazdinstva prema veličini i tipu proizvodnje u Republici Srbiji, Census of Agriculture 2012 – Agriculture in Republic of Serbia, SORS, Belgrade, p.11.
3. **Institute of Agricultural Economics (IAE), (2013):** Stanje i mogućnosti razvoja održive poljoprivrede i ruralnog razvoja u Podunavlju, monograph, IAE Belgrade, p. 260.
4. **Statistical Office of the Republic of Serbia (SORS), (2013):** Census of Agriculture 2012, SORS, Belgrade.
5. **Subić, J., Marković, D. (2014):** *Ekonomski aspekti obavljanja delatnosti na poljoprivrednim gazdinstvima*, Proceedings, Closing conference "Primena podataka Popisa 2012. u analizi stanja poljoprivrede i planiranju agrarne politike u Republici Srbiji", Subotica, SORS, Belgrade, pp. 230- 245.
6. **Tomić, D., Gulan, B., Mandić, M. (2015):** Razvoj porodičnih preduzeća u seoskim područjima Srbije, Monograph study, Institute of Agricultural Economics, Belgrade, p. 39.