

THE ROLE OF FAMILY FARMS IN RURAL DEVELOPMENT OF THE REGION

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Abstract

The Region of Western Serbia and Šumadija has favorable conditions for agricultural and rural development due to the fact that it disposes of important resources such as: land, livestock resources, manpower. However, numerous difficulties influenced the development as a result of inherited property structure of farms, social structure of population, position, function and role of agriculture in rural development, economic development, but also in the development of agrar policy itself. Family farms represent the main subjects of agricultural production, other activities and rural development. Potentials of family farms of the region enable the members of farms and households to practice activities other than agricultural production and therefore to influence rural development and development of rural areas. Rural areas of the region with potentials have possibilities to produce more food and develop other production related activities with the scope of enabling sustainable socio-economic rural development, protection of natural resources from pollution, increase of the land fertility and biodiversity preservation. Agriculture has a special place in economic development of the region, especially because it represents an important source of profit and jobs in its numerous branches, and furthermore, it plays the main role in rural development enabling valorization of local resources and development of small and medium business activities in different sectors. Regarding crumbled and weak private sector of agriculture in the context of making conditions for a more balanced development of rural areas, a rational solution is the one that would create possibilities for a family farm to become equal with other economic entities in all aspects, in its status and position in development and economic policies, with the aim of increasing food production and therefore improvement of the development of rural areas and rural development. For this reason, it is important to create conditions for the development of comparative advantages of modern agriculture in rural areas of the region and more ballanced rural development.

Keywords: family farms, region, agriculture, rural development, food production, local resources.

Introduction

Family farms of the region of Western Serbia and Šumadija with potentials such as: land, livestock, manpower have a possibility of increasing agricultural production and of developing of rural areas. Farms represent the main subjects of agricultural production, other activities and rural development of the Region (Group of Authors, 2006).

The fact that family farms are undergoing changes is having influence on the development of rural areas and rural development, making the members of farms to the position of adjusting in order to survive (Jelić, Jovanović, 2010). The main activity in rural areas of the region is agricultural production, but no less important are other activities for which conditions have been made with the aim of contributing to the development of rural areas, rural development and food production.

The extent to which infrastructure in rural areas will be developed and improved and instruments for the development and improvement of both agricultural production and other activities will be provided will influence the development of rural areas, the upgrade of quality of living of the Region's population and a more balanced rural development.

Aim and methodology of the study

This abstract has a goal to demonstrate the significance of family farms and their role in the development of agricultural and food production and of other activities in rural development of rural areas and rural settlements. Special attention is paid to family farms. The aim of the study is also to illustrate the structure of family farms according to some of their characteristics and based on statistics published by the Statistical Office of the Republic of Serbia, other available sources and documents.

Potentials of family farms are significant, however, it is important to create preconditions for the development of such rural settlements which already have certain possibilities and potentials for agricultural development, food production, development of other activities for which preconditions have been created, in order to influence more balanced rural development (Jelić et al., 2011).

The basic activity of the family farms of the region is agricultural production, which means that the members of farms and households which are predominantly agricultural practice this basic activity. However, a growing number of farms and households are mixed, meaning that, besides agriculture, they practice other types of activities and therefore help improve the quality of living in a farm/household and develop rural areas.

The main method used in the study is a descriptive statistics method, applied by collecting of relevant data which have then been organized based on geographic, temporal and numeric characteristics. The mentioned method has been applied in monitoring of the tendencies of the family farms' land based on the way of using the land, structure of the parcels, livestock and manpower.

Other methods, such as analysis of documents and comparative methods, have also been used.

Results of the research

A farm holding is technically and economically independent production unit which has unique management and where a company, an agricultural cooperative, an institution or another legal entity, an entrepreneur or a family farm carries out agricultural production as primary or secondary activity.

A family farm is operated by members of a family who practice agricultural production, as primary or secondary activity and also:

- farms at least 50 ares (\approx 1.24 acres) of agricultural land where agricultural production is carried out, no matter whether it refers to commercial production or not; or
- farms less than 50 ares of agricultural land, but carries out intensive tillage, fruit, vineyard, vegetable or flower production (greenhouse and nursery production included), mushroom production or livestock production, i.e. carries out commercial production;
- raises at least two heads of cattle, or one head of cattle and two heads of small livestock or five heads of sheep or three heads of pigs or fifty heads of poultry or twenty bee colonies.

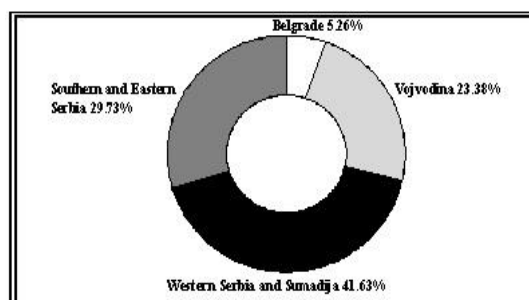
Companies, agricultural cooperatives and other types of entities with legal entity status can carry out mainly agricultural production, or can be registered as carriers of some other type of activity but have parts of their organizational structure which exercise agricultural production (Statistical Office of the Republic of Serbia, 2011).

Table 1 Households and farms according to their legal status

Description	Households	Farms		
		Total	Family	Legal entities and entrepreneurs
Republic of Serbia	2.487.886	631.552	628.552	3.000
Serbia – North	1.302.590	180.868	179.386	1.482
Serbia – South	1.185.296	450.684	449.166	1.518
Western Serbia and Šumadija	662.769	262.940	261.935	1.005
Share of Western Serbia and Šumadija in the Rep. of Serbia	26,64%	41,63%	41,67%	33,50%
Share of Western Serbia and Šumadija in Serbia – South	55,92%	58,34%	58,32%	66,21%

Source: Author's calculation based on the data provided by the SORS (Statistical office of the Republic of Serbia, 2013)

The share of the number of farms in the Western Serbia and Šumadija region in total number of farms in the Republic of Serbia is 41.63% (Chart 1).



Source: Author's calculation based on the data provided by the SORS (Statistical office of the Republic of Serbia, 2013)

Fig. 1 Share of number of farms per region in total number of farms

Used agricultural surface is the surface of the land used for agricultural production. Used agricultural surface comprises of arable land and vegetable gardens, orchards, vineyards, meadows and pastures.

Table 2 Used agricultural surface of the region (in hundreds of hectares)

Region - County	Year	Arable land and vegetable gardens	Orchards	Vineyards	Meadows	Pastures
Western Serbia and Šumadija	2009	782	132	14	297	368
	2010	779	132	14	297	365
	2011	781	132	14	297	366

Source: Statistical yearbook of Serbia for 2014 (Statistical Office of the Republic of Serbia, 2013)

Tables 2 and 3 refer to the ways of using agricultural land. Table 3 illustrates that surfaces under agricultural land did not change significantly in the period 2009 – 2001 in the Region of Western Serbia and Šumadija. Table 2 refers to the way of using agricultural land by the farms by categories, but besides this, it also refers to surfaces under gardens and nurseries. The remaining surface comprises of woods, marshes, ponds, other non fertile land, etc. Out of total agricultural surface used in the Republic of Serbia, 55% of the land under orchards, 54% of the land under meadows and pastures and 52% of the land under nurseries is located in the Western Serbia and Šumadija region. Arable land and vegetable gardens make 20%, whereas the land under vineyards makes 39% or 8,668 hectares. Land under vineyards is the biggest in Rasinski County (6,406 hectares) and makes 74% of total land under vineyards in the Western Serbia and Šumadija region. Mačvanski County disposes of 129,238 hectares of the arable land and vegetable gardens, which makes 25% of total arable land and vegetable gardens in the Western Serbia and Šumadija region. With 155,342 hectares or 40.3% of the land under meadows and pastures, Zlatiborski County stands out in the region of Western Serbia and Šumadija. Zlatiborski County also stands out for the land under orchards with 20,359 hectares.

Table 3 Used agricultural land of the farms in the regions per category (in hectares)

Region - County	Garden	Arable land and vegetable gardens	Meadows and pastures	Orchards	Vineyards	Nurseries	Other
Western Serbia and Šumadija	10.815	518.627	384.617	90.457	8.667	685	343
-Zlatiborski County	1.414	46.043	155.342	20.359	4	39	51
-Kolubarski County	1.218	70.042	40.179	13.685	99	33	16
-Mačvanski County	2.382	129.238	18.039	11.502	93	66	23
-Moravički County	1.119	39.625	50.366	12.807	37	34	44
-Pomoravski County	910	70.883	14.970	4.195	1.217	21	27
-Rasinski County	1.034	56.137	19.322	9.729	6.406	451	149
-Raški County	955	31.494	62.717	7.642	39	16	22
-Šumadijski County	1.781	75.165	23.682	10.537	772	27	10

Source: Agricultural Census for 2012, SORS (Statistical Office of the Republic of Serbia, 2013)

The main characteristics of the farms from the point of view of the land funds show that the property structure of farms is divided and reduced to small pieces. Property structure of farms, due to being significantly divided and reduced to small pieces, has a negative impact on bigger agricultural production. Thus, there is a need for organization of the land and also for ending of further reducing of the land to smaller pieces which is a consequence of inheriting and selling of a land.

Changes in the number of farms and their size are due to numerous reasons, the main of them being the change of the number and structure of manpower. Decrease of the number of farmers, especially of active farmers, and increase of the number of households run by

older adults influenced the change in structure of farms, rural development and environment protection (Jelić, 2006).

Change in the socio-economic structure of population in rural areas, decrease of the number of farmers, depopulation of villages, especially in mountainous regions, significant population aging influenced the development of farms and rural development (Jelić, Jovanović, 2005; Jelić, Jovanović, 2006).

The share of farmers in the total population is declining, as well as of active farmers, which causes the increase of the amount of land per capita in farmers and active farmers population. Being the important producers of agricultural crops, farm holdings contribute to rural development and environment protection. Agricultural productivity is low and underdeveloped, mainly due to the fact that farms lack financial resources and that they can not keep up with modern technologies in the process of agricultural production. In whole agricultural production, farms are important producers and represent the basis for the entire development. There is no rural development of the Region without modern agriculture, without employing of young and educated people who live in rural areas and would become carriers of rural development. Part of rural population who deal with agriculture within farms make profits from agriculture, and by being important agricultural producers, they contribute to the growth of the domestic product and to rural development.

Table 4 Structure of farms based on the number of members and permanently employed within a farm

Region - County	Total	1-2 people	3-4	5-6	7 or more people
Republic of Serbia	631.552	433.399	170.883	25.050	2.220
Western Serbia and Šumadija	262.940	168.032	80.474	13.375	1.059
-Zlatiborski County	46.944	28.580	15.094	2.995	275
-Kolubarski County	27.604	17.307	8.599	1.590	108
-Mačvanski County	44.701	31.143	11.880	1.572	106
-Moravički County	29.380	18.601	9.159	1.498	122
-Pomoravski County	24.990	16.756	7.099	1.063	72
-Rasinski County	34.207	20.546	11.665	1.868	128
-Raški County	28.173	17.797	8.877	1.365	134
-Šumadijski County	26.941	17.302	8.101	1.424	114

Source: Agricultural Register for 2012, SORS (Statistical Office of the Republic of Serbia, 2013)

Table 4 presents farm holding based on the number of persons permanently employed within a farm. The highest number of farm holding members permanently employed within farms live in Zlatiborski County (46,944) and Mačvanski County (44,701). With 7 or more persons permanently employed per farm, Zlatiborski County (275) and Raški County (134) stand out. Since only in Raški County the number of citizens, households and farms increased, it would be expected to have a higher number of persons permanently employed within a farm (5, 6, 7 or more) in the respective part of the table 8. Given the fact that this is not the case, a conclusion can be drawn that farm members are not permanently employed within a farm.

Table 5 illustrates the number of farms which deal with livestock production. Cattle production is the most common in Zlatiborski, Mačvanski and Raški Counties, while pig production is the most common again in Mačvanski and Raški Counties. Farms which deal with sheep production are the most common in Zlatiborski and Mačvanski Counties. Poultry production is the most common again in Mačvanski County. Therefore, most of the farms engaged in cattle, pig, sheep and poultry production belong to Mačvanski County.

Table 5 Structure of farms based on livestock production

Region - County	Cattle production	Pig production	Sheep production	Poultry production
Republic of Serbia	177.252	355.052	154.972	413.792
Western Serbia and Šumadija	96.336	144.089	96.967	173.106
-Zlatiborski County	20.597	17.915	19.052	24.920
-Kolubarski County	11.620	17.787	13.798	20.353
-Mačvanski County	14.211	30.489	15.965	32.763
-Moravički County	10.821	15.272	12.204	17.996
-Pomoravski County	6.231	14.739	6.242	17.931
-Rasinski County	9.917	20.198	8.714	22.636
-Raški County	14.051	12.233	7.621	17.787
-Šumadijski County	8.888	15.456	13.371	18.720

Source: Agricultural Register for 2012, SORS (Statistical Office of the Republic of Serbia, 2013)

In table 6 a comparative review of the number of heads of cattle, pigs, sheep and goats through Region of Zapadna Srbija and Šumadija is given. The highest number of heads of cattle, pigs and goats belongs to Mačvanski County, whereas the highest number of heads of sheep belongs to Zlatiborski County. Even 34.8% of pigs out of total number of pigs of the Region of Zapadna Srbija and Šumadija belongs to Mačvanski County (400,391 heads). The smallest number of heads of cattle and sheep belong to Pomoravski County, the smallest number of heads of pigs belong to Zlatiborski County, whereas Moravički County has the smallest number of heads of goats.

Table 6 Number of cattle, pigs, sheep and goats in the region

Region - County	Cattle	Pigs	Sheep	Goats
Western Serbia and Šumadija	413.759	1.151.391	1.047.328	70.852
-Zlatiborski County	78.540	66.004	214.057	10.877
-Kolubarski County	59.387	161.198	161.945	9.002
-Mačvanski County	80.283	400.391	161.878	11.654
-Moravički County	37.854	81.593	121.889	6.431
-Pomoravski County	27.255	116.113	63.328	9.666
-Rasinski County	33.953	132.315	66.490	8.313
-Raški County	53.965	70.412	99.020	7.038
-Šumadijski County	42.522	123.365	131.721	7.871

Source: Agricultural Register for 2012, SORS (Statistical Office of the Republic of Serbia, 2013)

In the second half of the Twentieth Century, family farms in Serbia underwent through a series of changes and events. Change of demographic and socio-economic structure of the rural population influenced the decrease of the number of total and active farmers, which caused the decrease of manpower in farms.

Having in mind unfavorable property structure of family farms of the region, it is evident that farm holdings must become bigger. Certain legislative actions could arrange inheritance of farmland, which would stop its further crumbling. Size of farmland influences significantly a range in the number of cattle and pigs per hectare of used land and in average per farm (Ministry of Agriculture and Environment, National Statistical Office, 2014).

Comparison of the results of the censuses carried out, including the one in 2011, no matter the size of the farmland of family farms in the Region, shows that there has been a general tendency of the decrease in total number of cattle and pigs per hectare of used land and per farm. Negative tendencies in livestock production indicate that there is a need of defining an integrated program of livestock development in the coming period aiming at increasing the number of heads and improving the breed composition of all kinds of livestock.

Changes that followed rural areas did not surpass family farms of the region. An average family farm and household was reducing in size because the young went away to towns looking for better life and work conditions, which all caused changes in the structure of family farms and households.

Conclusion

Important role in rural development belong to family farms and their members whose principal activity is agriculture and other activities. Total number of households in the Region of Western Serbia and Šumadija decreased in the period between two censuses by 16,165 households, and of course family farms prevail over the farms operated by entrepreneurs and legal entities (Panev, Marinković, 2012). Farms mainly deal with pig, sheep and cattle production, while plant production is mostly achieved through fruit production, but also vast area of land is under meadows and pastures. According to their share in production potential and to the quantity of production that they achieve, family farms represent the most important production unit in the Region's agriculture. However, not enough attention has been paid to this form of production so far, and major mistakes have been made with consequences that can be experienced even today. Particularly for this reason, special attention needs to be paid to their development and reorganization.

Family farms of the region of Western Serbia and Šumadija point out the unfavorable property structure. The existing process of de-agrarization is not used sufficiently for its improvement. This condition has also been caused by unsuitable legal provisions, especially in terms of its inheriting and renting, as well as by inadequate use of land for non-agricultural purposes. Given the fact that out of total number of farms in the region farmers dispose of significant quantity of arable land, by stimulating production, not only can they improve and speed up development of farms, but they can also contribute to rural development, development of rural areas and to agriculture in general, and therefore to protection and improvement of the environment. Having in mind comparative advantages of agriculture, it is necessary to foster the farms inhabited by young agricultural producers, with the scope of creating conditions for the farms to become driving force of rural development and major food production (Jelić, Jovanović, 2003). Modern agriculture is foundation and the most important factor of modernization of agriculture and development of rural areas.

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