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ANALYSIS OF AGRICULTURAL HOLDINGS IN ROMANIA IN TERMS OF SIZE

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Abstract

According to statistics, Romania is in the last place when it comes to the average of the agricultural surfaces used by agricultural holdings. The article aims at comparative analysis and identification of territorial discrepancies at the level of the 41 counties, regarding the dimension of agricultural holdings. Taking into consideration the average area of the farms, using the national statistical data (GAR, SSA), as well as the data on the beneficiaries who have received subsidies through the Paying and Intervention Agency for Agriculture (APIA), we notice a significant difference, thus showing the polarization of the types of farms.

***Key words*:** *agricultural holdings, farm size, physical size, agricultural development*

INTRODUCTION

The agricultural land and the agricultural production resources are found in different types and forms at the at the farm level. They are differentiated by the amount of resources held, with particular reference to surface and / or the number of animals.

The production results depend, also on the volume of resources, as well as on how they are valued. The size of a farm is mainly represented by the area of land or the number of animals held [4], [11].

High-performance agriculture can only be realized within modern agricultural holdings, holdings with legal personality, which, on private property lands or on leased, concessioned or rented lands, have organized holdings that respond to the agrotechnical requirements specific to the type of holding.

The persistence of the major importance of agriculture in the Romanian rural economy is generated by the fact that the agricultural area used by the commercial, efficient and competitive agricultural farms, is approximately equal to that on which a subsistence agriculture is practiced [2].

After 1989, by applying the land laws and promoting the new structures of agricultural holdings based entirely on the private ownership of agricultural land, it was reached in 2010 that agricultural holdings without legal personality hold 52.9% of the total area of agricultural holdings in Romania, agricultural area used by them represents 56%, and the total area difference 47.1% of agricultural holdings or the agricultural area used 44% to be composed of agricultural holdings with legal personality [6], [5], [10].

After 1989, by reassessing the land ownership structures and remodeling the physiognomy of the agricultural holding in Romania, it was considered necessary to study, analyze and evaluate the quantitative and qualitative evolution of the field.

At the moment, at national level, the legal framework is extremely complex, directly influencing by the way of setting up and functioning of agricultural holdings, at the regional level, with evident particularities [3].

The structural changes aimed mainly at the economy generate complementary changes in various sectors and aspects, which in turn affect the growth and development process of that field.

Structural changes, in agriculture, are analyzed through a wide range of indicators, among which are most often found in the specialized literature the number of farms (farms), farm size, level of investments, etc.[9].

In the work "Structural Analysis of Agricultural Farms In Romania" by Unguru M. (2017), a structural analysis of the agricultural sector at national level is made, from the point of view of the typology of agricultural holdings, realizing possible correlations with the added value achieved [14].

Anghel, Anghelache and Panait (2017) studied the data recorded by all the EU member countries regarding the agricultural sector, highlighting the performances recorded by Romania, taking into consideration the evolution of agricultural production, livestock, the GVA from agriculture, the areas used by agricultural holdings and the labor force [1].

In the specialized literature there are numerous studies regarding both the territorial physical dimension of the farm and their economic dimension. The physical dimension of a farm (the surface of the farm) may indicate vague the degree of resource concentration, being poorly correlated with efficiency as well as economic results.

Increasing the physical size of the farm leads directly to the rapid growth and its economic dimension, so that the intensification of production per unit of agricultural area is considered more important than the increase of the surface, according to A. Tofan, 2006. [13].

MATERIALS AND METHODS

Structural analysis of agriculture is a priority issue and of current importance. Farms express the degree of concentration of agricultural areas. Romania at the level of the U.E. is placed in the last places in terms of the average area used on a farm.

In the study it was performed a qualitative and comparative analysis of the statistical data found in the General Agricultural Register (GAR 2010), the Structural Survey of Agriculture (SSA 2013, 2016) and the Agency for Payment and Intervention for Agriculture (APIA).

The final objective of the paper is to highlight the significant differences regarding the physical sizing of agricultural holdings.

RESULTS AND DISCUSSIONS

At the beginning of this research, aspects regarding the two main elements will be addressed, which will help determine the average size of the farm, respectively: the total areas and the number of farms. At the same time, as mentioned in the section on material and method, an analysis will be made regarding the indicators mentioned above, between the statistical data presented by the National Institute of Statistics (through the General Agricultural Register and the Structural Survey in Agriculture), and data provided by the Agriculture Payments and Intervention Agency, which provides data on the areas and farms that have received subsidies.

Taking into consideration, the utilized agricultural area of agricultural holdings, according to Table 1, it was found that it decreased during the analyzed period, in 2016, being 5% lower than the 2013 structural survey (13.03 million hectares) and 6% respectively compared to the RGA of 2010.

Using the statistical data registered within APIA, it is found that the agricultural areas receiving subsidies represent an average of over 70% of the agricultural areas used.

Table 1. The weight of the areas declared at APIA compared to the statistical data

Specification	2010	2013	2016
GAR + SSA areas (ha)	13,298,190.9	13,055,849.8	12,502,535
APIA areas (hectares)	9,503,452.07	9,863,922.71	9,223,341.4
Weight	71.46%	75.55%	73.77%

Source: acc. to Data GAR 2010 [7], SSA 2013, 2016, [12], APIA.

At the level of 2016, the number of agricultural holdings found in the Structural Survey on Agriculture was 3.42 million, which is 6% less than the number of registered farms at the level of 2013, and

compared to 2010 (according to the General Agricultural Census 2010) their number is 12% lower. By delimiting the holdings according to the type of holding, it was observed that the number of holdings with legal personality was 3,399 million in 2016, this number being 5.7% lower than in 2013, this category accounting the majority of the total number of farms. In the case of the number of subsidies applicants, according to data provided by APIA, the number of applicants decreased from 10.93 million in 2010, by 5% in 2013 and by 18% in 2016 (9.01 million). Associating the number of applicants to the number of holdings that have benefited from subsidies, we can say that the share of farms receiving subsidies of total holdings at country level for the year 2016 was 26.34%.

Table 2. Share of agricultural holdings declared to APIA compared to statistical data

Specification	2010	2013	2016
RGA + ASA farms	3,856,245	3,629,656	3,422,026
Number of applicants (APIA)	1,093,167	1,048,728	901,502
Weight	28.35%	28.89%	26.34%

Source: acc. to Data GAR 2010 [7], SSA 2013, 2016, [12], APIA.

Analyzing the number of applications for subsidies according to the type of applicant, the highest share is held by the applications submitted by individuals, over 90%.

Table 3. Structure of the beneficiaries of subsidies granted through APIA (%)

Number of the application according to the type of applicant	2010	2013	2016
Foreign citizen	0.01	0.02	0.02
Simple association forms without legal personality	0.00	0.01	0.00
Family businesses	0.01	0.05	0.10
Individual businesses	0.03	0.39	1.20
Individual	98.15	95.24	92.53
Legal entity	1.75	2.77	2.83
Authorized natural persons	0.05	1.53	3.31

Source: data processed according to APIA.

Following the evolution during the 3 years studied, it is found that the applications submitted by the legal entities increased from a share of the total number of subsidies applications from 1.75% in 2010 to 2.83% in 2016; this is also the case for the applications submitted by the PFA, from 0.05% in 2010, to 3.31% in 2016 of the total applications submitted.

Studying the data from the Agricultural Structural Surveys, it turned out that the agricultural area that returned per farm at national level did not undergo major changes (Table 3).

Thus, in 2016, the agricultural area per farm was 3.65 hectares, 1% higher than in 2013 (3.6 hectares per farm) and 6% higher than in 2010 (3.45 ha per holdings). Analyzing according to the categories of agricultural holdings, it can be observed that in 2013 the agricultural surface used on average on an agricultural holding with legal personality is lower by 3% compared to the average of 2016 (213 hectares per farm), while the area used of a farm with legal personality was only 2.04 hectares.

When reporting the number of applicants to the registered agricultural areas for the granting of subsidies (according to the APIA data), it is noted that the agricultural area that returns per farm at national level has been increasing during the 3 years studied, recording the value of 10, 23 ha / farm in 2016, 2% more than in 2013 (9.41 ha / farm).

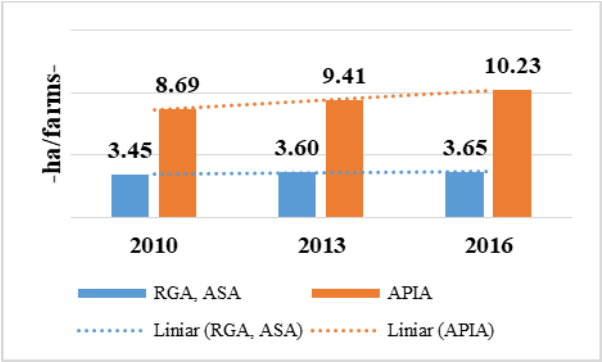

Fig. 1. The average size of the holding at national level of the APIA beneficiaries compared to the statistical situation

Source: own processing based on GAR, SSA and APIA data.

Both the agricultural area used and the number of farms varies from one region to another, depending on the specific area.

For a more detailed view of the situation, the 41 counties from Romania were taken for analysis, highlighting the regional discrepancies regarding the agricultural dimension at county level.

According to the data recorded in the structural agricultural surveys, the counties with the highest values of the agricultural surface used per farm, in 2010 were Constanta (11.21 ha), Timisoara (8.37 ha), Braila (7.63 ha) and Tulcea (7.58 ha), these counties remaining in positions in 2013 and 2016, with an increase in the value of agricultural areas used per farm up to 13.57 ha. On the last positions stands counties like Bucharest (0.63 ha), Prahova (1.50 ha), Dambovita (1.60 ha) and Bacau (1.83 ha).

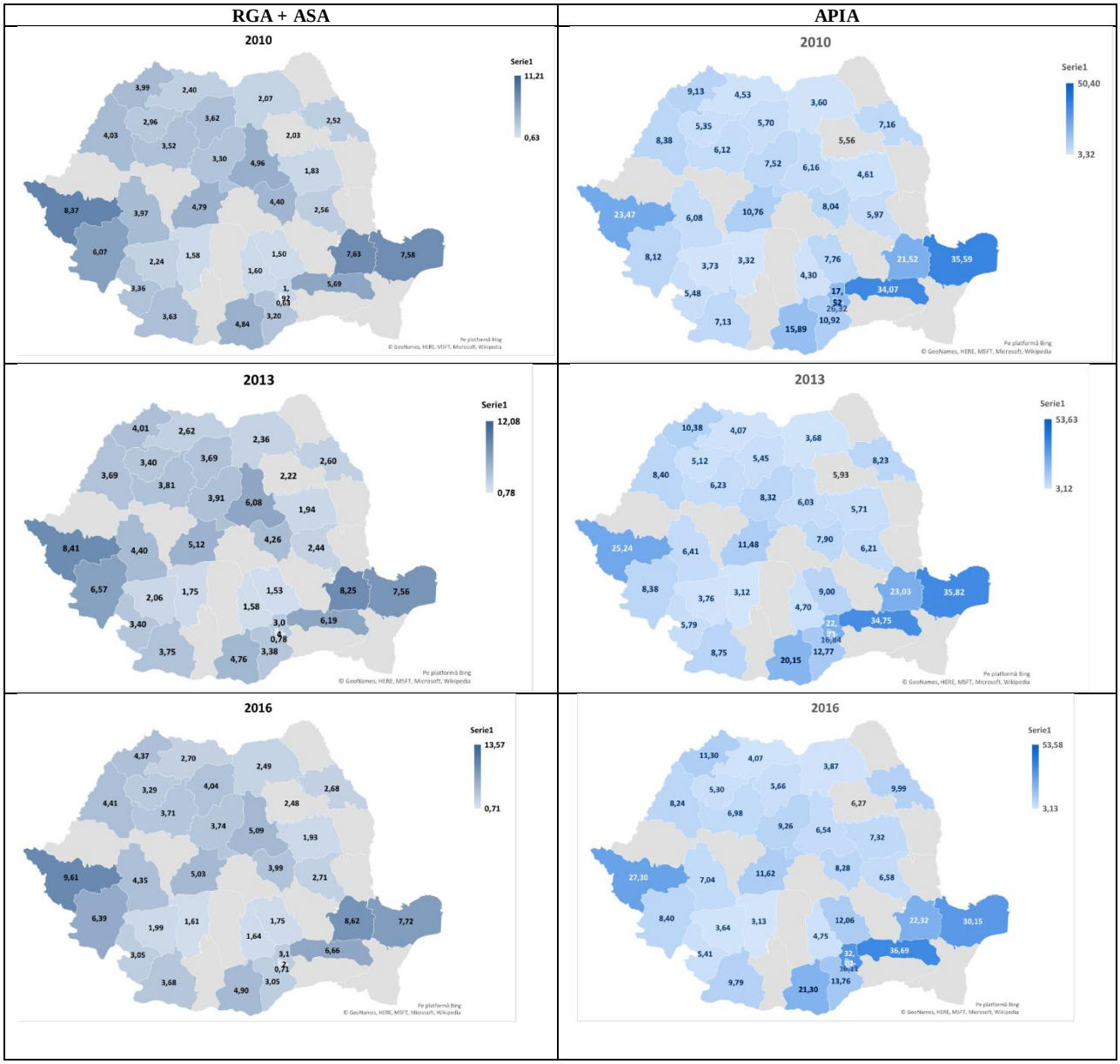

Fig. 2. Graphical representation of the average size of the exploitation at county level of the APIA beneficiaries compared to the statistical situation
Source: own processing based on GAR, SSA and APIA data.

In the case of APIA data processed at county level, the maximum values of the agricultural areas used per farm of 50.40 ha in 2010, 53.63 ha in 2013 and 53.58 ha are found during the 3 years analyzed. in 2016, in Constanta and Calarasi, a fact due to the large agricultural area per request for application (per farm) of the subsidies.

The counties with the lowest values of the agricultural surface used on the farm, in 2010 were Valcea (3.3 ha), Suceava (3.6 ha), Gorj (3.7 ha) and Dambovita (3.7 ha), positions that are also found in 2013 and 2016.

CONCLUSIONS

By Romania's accession to the European Union and agricultural programs, they contributed to the land consolidation of agricultural holdings, thus increasing average areas, reaching in 2016, an area of 3.65 hectares. However, if we were to look at the beneficiaries of agricultural subsidies, the average area worked was 10.23 hectares, this is a considerable difference.

Also, the subsidies granted by APIA contributed to the land consolidation, which increased farmers' interest in cultivating land and raising animals, subsidies that contributed to the profitability of the farms.

It should be noted that in the data provided by the Structural Survey at the level of 2016, in Calarasi county the average area of a farm was 6.28 hectares, while the average area of the farms that received APIA subsidies from the same place was 53.6 hectares. And in the case of Constanta county from INSE data, an average area of 13.57 hectares, but at the level of the agricultural holdings that received subsidies, their average size was 44 hectares.

In the case of counties such as Galati, recognized as a vegetable area, the average area used in 2016 of those who have received subsidies APIA was 13 hectares, while the average area of the farms analyzed by the Structural Survey was only 3, 67 hectares.

According to the legislation, by law no. 37/2015 [8], on the classification of farms and agricultural holdings, the farm is a form of organization made up of all the units used for agricultural activities and managed by a farmer, located in the territory of the same Member State of the European Union. Also the notion of farmer is defined as a natural or legal person or a group of natural or legal persons who own or use an agricultural farm in which he performs, alone or together with members of his family or other associated members, to obtain agricultural production. Given that in 2016, the number of farms with an economic dimension of 0 euros and below 2,000 euros (subsistence and semi-subsistence) were around 2 million, the definition of the concept of farmer is incomplete, and a clear definition of the farmer concept is necessary, in order to elaborate concrete measures and as close to reality as possible.

Thus, taking into consideration the data identified regarding the number of agricultural holdings (INSSE) and the number of beneficiaries of subsidies (APIA), it is found that there is a significant difference between this two indicators, although in the case of the number of beneficiaries from APIA they are not included and households (these holding a high share in the total number of agricultural holdings).

If an analysis is made regarding the weight of the areas registered at APIA, but also of the number of applicants, from the total of farms and areas declared by the statistics, there will be a quite significant difference. For example, if of the total number of farms at national level, only 28% are those applying for subsidies to APIA, they make up 74% of the total area at national level. On the other hand, if an analysis of the statistical data regarding the weight of farms without legal personality would be performed, this is 99.2%, working an area of 56%. In conjunction with these facts, two hypotheses can be launched, either the Pareto optimum is respected, respectively 20% of the farms own 80% of the areas, this may mean that the holdings registered with APIA have leased more land.

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