

RESEARCH ON THE EVOLUTION OF THE NUMBER OF AGRICULTURAL HOLDINGS IN THE PERIOD 2002 – 2016

Cristina STERIE, Eduard Alexandru DUMITRU

Research Institute for the Economy of Agriculture and Rural Development, 61 Marasti Boulevard, District 1, 011464, Bucharest, Romania, Phone: +4021.313.60.87, Fax: +021.313.60.96, Emails: sterie.cristina@iceadr.ro, dumitru.eduard@iceadr.ro.

Corresponding author: sterie.cristina@iceadr.ro

Abstract

Rural space is an important social component for each country. Phenomena such as ageing population and migration of young people to large urban centres or outside Romania's borders have led to the depopulation of these areas. This paper is identify from the point of view of legislation, how to classify holdings according to agricultural activity, but how they are classified according to economic size. The aim of the work is to identify the evolution of the number of holdings influenced by various factors, but also to determine the position that Romania must have with regard to agricultural holdings in relation to other countries of the European Union. The quantitative and qualitative method of data analysis was used in this paper. Also, the analyzed data show that the methods of subsidizing and financing agricultural holdings have contributed to the decrease in the total number of agricultural holdings (mergers) in Romania.

Key words: agricultural holdings, rural area, rural development

INTRODUCTION

Agricultural holding is a form of organisation consisting of all the establishments used for agricultural activities and managed by a farmer, situated in the territory of the same Member State of the European Union [3].

According to Law No. 37/2015 on the classification of farms and agricultural holdings, *by type of agricultural activity*, holdings are classified as follows [10]:

A. Specialized holdings – crops

- holdings specialising in field crops;
- farms specializing in horticulture;
- holdings specialising in permanent crops.

B. Specialized holdings - animal production

- holdings specialising in the rearing of herbivorous animals;
- holdings specialising in the rearing of cranivorous animals.

C. Mixed holdings

- mixed-crop holdings;
- mixed livestock holdings;
- mixed farms of crops and livestock farming;
- unclassified holdings.

Agricultural production has managed to withstand, over time, despite various events and changes, resisting both during the

communist period, but also during this period when market competition is fierce [1, 2].

The term "size" indicates the qualitative side, namely the output (production) of the holding, while the size refers to the quantitative side. Also, the notion of "size of a farm" mainly refers to the area of land worked or the livestock. Indicators such as personnel, degree of endowment with agricultural machinery or machines, indirectly compose the size of agricultural holdings [7, 8].

Until 2013, at the level of the European Union, the economic dimension of a farm was expressed in units of economic size, where the value of a unit of economic dimension was 1.200 euros. Starting with 2014, when the second rural development financing program (PNDR) appeared, this indicator was replaced by the SO (standard output) indicator [4].

The size of an agricultural holding is mainly represented by the area of land or the number of animals held and is expressed in physical sizes (hectares, heads of animals) [9, 11, 12].

Depending on the economic dimension, farms and farms shall be classed and defined as follows [10]:

-less than EUR 1,999 - subsistence farms which produce entirely for their own consumption;
 -EUR 2,000-7,999 - semi-subsistence farms that provide their own consumption and a small part of the agricultural production that markets it;
 -8,000-49,999 euros - small commercial farms that sell more than 50% of their agricultural production;
 -EUR 50,000-999,999 - medium-sized commercial farms that market all their agricultural production;
 -over EUR 1,000,000 - large agricultural farms/holdings that market all their agricultural production.

MATERIALS AND METHODS

In order to carry out this work, data from the National Statistical Institute were used through the General Agricultural Census (RGA 2002, RGA 2010), the Structural Survey in Agriculture (ASA 2007, ASA 2013, ASA 2016), as well as data provided by European database – EUROSTAT. These data were processed using the qualitative and quantitative method of data, using the Excel program.

RESULTS AND DISCUSSIONS

The evolution of agricultural holdings in Romania, during the period under review, is noted a decrease, so that if in 2002 there were more than 4.48 million farms, in 2013 the number of farms was decreasing by 19%, reaching the threshold of 3.6 million holdings. In 2016 the consolidation process continues as a result of the measures taken in this regard, so that the number reached 3.42 million (Figure 1.).

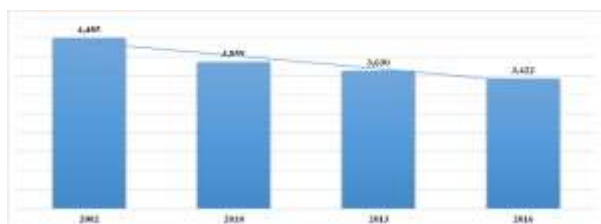


Fig. 1. Evolution of agricultural holdings in the period 2002-2016 (thousand holdings)

Source: INS, RGA 2002, RGA 2010, ASA 2013, ASA 2016 [6].

It is worth noting the trend of declining agricultural holdings among both agricultural holdings without legal personality and those with legal personality.

At 2013 level, more than 73% of all holdings were classified among mixed-type farms.

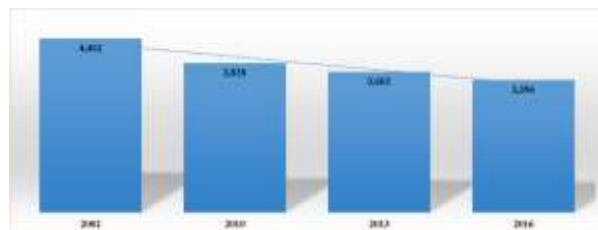


Fig. 2. Evolution of agricultural holdings without legal personality in the period 2002-2016 (thousand holdings)

Source: INS, RGA 2002, RGA 2010, ASA 2013, ASA 2016 [6].

The share of agricultural holdings without legal personality in the total holdings is 99%. It should be noted that farms without legal personality will fell from 4.46 million in 2002 to 3.4 million in 2016, due to an ageing population that was no longer able to deal with agriculture and due to the measures of Romania's accession to the European Union (Figure 2).

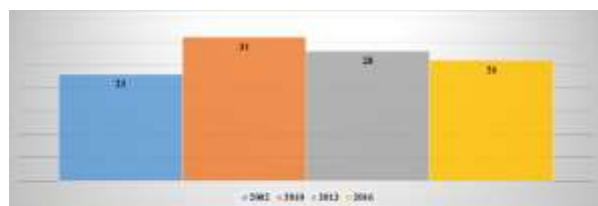


Fig. 3. Evolution of agricultural holdings with legal personality in the period 2002-2013 (thousand holdings)

Source: INS, RGA 2002, RGA 2010, ASA 2013, ASA 2016 [6].

In 2010 there was an increase in the number of agricultural holdings with legal personality, reaching the value of 31 thousand, due to the criteria established for farmers to access European funds through the National Development Programme Rural, but in 2013 there was a decrease of 9.7% due to their inability to adapt to the rules laid down by the European Union, which led either to their closure or were purchased by other

agricultural holdings in to increase the scores for investments made through the National Rural Development Programme. This phenomenon continued in 2016, when the number was about 26 thousand (Figure 3).

We can see that the number of agricultural holdings using agricultural land shows a decrease by 13.2% in 2013, when the number of farms was 3.56 million, while in 2005 the number of holdings was 4.1 million (Table 1).

Table 1. Evolution of agricultural holdings by size class of agricultural area used (number)

Size classes of agricultural area used (hectares)	Total					
	2005	2007	2010	2013	2016	2016/2005 (%)
Total	4,103,404	3,834,407	3,724,332	3,563,765	3,342,185	-18.6
under 0.1	414,696	273,525	384,944	408,958	351,894	-15.1
0.1 – 0.3	474,162	522,028	662,122	642,056	555,396	17.1
0.3 – 0.5	283,145	279,085	355,182	330,990	295,765	4.5
0.5 - 1	677,761	609,440	617,198	561,378	567,514	-16.3
1 - 2	868,918	799,143	712,288	646,542	630,361	-27.5
2 - 5	1,011,819	963,453	727,389	691,257	659,997	-34.8
5 - 10	286,987	297,638	182,444	193,871	194,200	-32.3
10 - 20	64,514	68,897	43,609	49,648	50,212	-22.2
20 - 30	9,747	9,156	9,730	10,259	10,992	12.8
30 - 50	5,521	5,988	8,213	8,468	7,531	36.4
50 - 100	3,919	3,587	7,556	7,263	6,013	53.4
over 100	2,215	2,467	13,657	13,075	12,310	455.8

Source: ASA 2005, ASA 2007, RGA 2010, ASA 2013, ASA 2016 [6].

The sharpest decreases were recorded among holdings using an agricultural area between 2-5 hectares and 5-10 hectares. A phenomenon that can be explained by the fact that these holdings have been absorbed by holdings using larger agricultural land areas. Thus, agricultural holdings using agricultural areas of more than 100 hectares registered an increase of 455% in 2016, compared to 2005, from 2,215 holdings to 12,310 (Table 1).

In the case of Bulgaria, Hungary, Poland and Romania, there may be a decrease in the number of agricultural holdings during the period considered, as a result of the measures concerning their consolidation through the various programmes under consideration.

Although the area of the country, including the agricultural area, is larger than in the case of Romania, the number of agricultural holdings in Poland is 1.14 million compared

to those seen in Romania in 2016, i.e. 3.42 million (Figure 4).

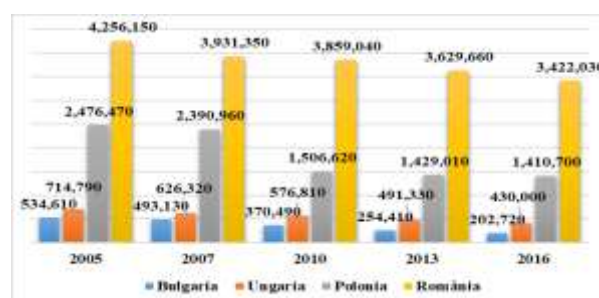


Fig. 4. Evolution of the number of agricultural holdings in Bulgaria, Hungary, Poland and Romania in the period 2005-2016 (number)

Source: processed data Eurostat, Accessed on 15.01.2020 [5].

According to Table 2 There is a sharp decrease in holdings classified as having an economic size of between EUR 2000-7999 and less than EUR 1999 in 2016.

Table 2. Evolution of agricultural holdings classified by economic size (number)

Clasificare	2005	2007	2010	2013	2016	2016/2005 (%)
under 1,999 eur	2,813,340	2,642,490	2,820,360	2,493,430	2,333,210	-17.1
2,000-7,999 eur	1,324,730	1,153,490	916,200	952,920	902,850	-31.8
8,000-49,999 eur	109,170	125,290	109,950	166,930	169,280	55.1
50,000-99,999 eur	4,180	5,130	6,150	7,830	7,730	84.9
100,000-249,999 eur	2,900	3,120	3,990	5,000	5,180	78.6
250,000-499,999 eur	1,100	1,140	1,430	2,100	2,180	98.2
over 500,000 eur	730	700	950	1,470	1,610	120.5

Source: processed data Eurostat, Accessed on 15.03.2020 [5].

This was encouraged by CAP measures on the consolidation of agricultural holdings, but also by the ageing of the rural population,

which were no longer able to support the holdings, which were subsequently sold.

There is also a sharp increase in the number of holdings with a standard production value of more than EUR 500,000, which if in 2005 the number was 730, in 2016 they were 1610, up by more than 120% (Table 2.).

CONCLUSIONS

With more than 3.63 million agricultural holdings, Romania register 33.5% of the total number of U.E. farms, but they account for only 7.5% of the U.E. area for Romania, this discrepancy reflects the dominant nature of small-scale farms, this is a very small average area of the agricultural holding.

A structural attribute of agricultural holdings in Romania to be noted is the persistence of a very large concentration of holdings with low standard output values. Farms with legal personality increased significantly in 2010 by around 35%, as a result of the national Rural Development Program, which led farms without legal personality to be authorized to access these non-reimbursable funds. In 2013, there was also a decrease in the number due to the inability to adapt to the rules laid down by the European Union (e.g. animal welfare rules).

In the pooling process, agricultural holdings using an agricultural area between 5-10 hectares and between 2-5 hectares have been shown, while at the same time a significant increase in farms using agricultural areas of more than 100 hectares has been observed.

The downward trend in the number of farms is also recorded in countries such as Bulgaria, Hungary or Poland, against the background of measures developed under the national development programs.

For agricultural holdings classified by economic size, at 2013 level more than 68% of these were subsistence farms with an economic size of less than EUR 2,000 and around 26% had an economic dimension of between EUR 2,000 and EUR 8,000, this shows the predominability of holdings with a low production value.

In order to keep a record as close as possible to reality and, in particular, to draw up a series of decisions on farms, it is necessary to process data as close as possible to reality.

According to the National Statistics Institute the data found in the General Agricultural census (RGA 2002, RGA 2010), the structural survey in agriculture (ASA 2007, ASA 2013) are data that centralize the number of agricultural holdings regardless of their ownership. In other words, a holding with leased land from several farmers does not appear as a single holding, although it may, if it so wishes, apply to access European funds as a single holding. Therefore, the land registration process is extremely important in order to have concrete data on the actual number of farms and, in particular, to develop appropriate measures in line with reality.

REFERENCES

- [1] Alecu, I., 2001, Management of agricultural holdings, Publisher Ceres, Bucharest, pp. 112-116.
- [2] Bold, I., Craciun, A., 1995, Farming organization, development, exploitation, Publisher Mirton, Timisoara, pp. 57-64.
- [3] Coman, C., Tudor V., 2019, Demographic analysis of South Muntenia Region, Scientific Papers-Series Management Economic Engineering In Agriculture And Rural Development, Vol 19(2), 75-80.
- [4] Dumitru, E. A., Micu, M.M., Tudor, V.C., 2019, Conceptual approaches regarding the Romanian rural area, Scientific Papers-Series Management Economic Engineering In Agriculture And Rural Development, Vol 19(2), 121-127.
- [5] Eurostat Database, Accessed on 15.03.2020.
- [6] Eurostat, Statistics Explained, Structural Surveys in Agriculture, 2002, 2010, 2013, 2016, https://ec.europa.eu/eurostat/statistics-explained/index.php/Farm_structure_survey_%E2%80%93_survey_coverage, Accessed on 15.03.2020.
- [7] Lazar, T., 2001, Cooperation - the key to organizing modern agricultural holdings, "Economistul" Publisher, pp. 12.
- [8] Nastase, M., 1999, The optimal size of farms, Publisher Chrater B, Bucharest, pp. 27-31.
- [9] Pana, V., Scriosteanu, A., 1997, Organization and strategy of agricultural units development, Publisher Reprografia Universitatii din Craiova, pp. 130-131.
- [10] Romanian Parliament, Law No. 37/2015 on the classification of farms and agricultural holdings, by type of general type of agricultural activity.
- [11] Tanasescu, R., 1995, Management in agricultural units, RTC Paper Converting S.A. Publishing House, Bucharest, pp. 95-97.
- [12] Voicu, R., 1999, Organization and strategy of agricultural units development, ASE Publishing House, Bucharest, pp. 23.