

## OBSERVATIONS REGARDING THE EVOLUTION OF THE AGRICULTURAL LAND FUND IN ROMANIA ON CATEGORIES OF USE AFTER 1990

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### *Abstract*

*The paper presents the evolution of the areas of agricultural land in Romania, by categories of use, after the '90s. According to the Law of the land fund 18/1991 "the lands of any kind, regardless of destination, title on the basis of which they are owned or by the public or private domain of which they are part, constitute the land fund of Romania". If before 1989 there was a tendency to increase the areas destined for agriculture, especially of arable land, after the revolution, with the restoration of land rights, there was an oscillating evolution of agricultural areas, with a decreasing tendency. The study is based on data provided by the National Institute of Statistics. The year 1990 is taken as a reference, and for an overview, are presented the values of the surfaces for each category of agricultural use from 5 to 5 years. The surface of the Romanian land fund is 23,839,100 ha, being made up of agricultural and non-agricultural areas. These surfaces had certain variations throughout the period studied. The area of arable land had a maximum in 1990 when there were 9.45 million ha and a minimum in 1995 with only 9.33 million ha. The value closest to the maximum was recorded in 2005 (9.42 million ha).*

**Key words:** *agricultural land fund, category of use.*

### INTRODUCTION

The land fund of Romania is divided into 10 categories of use, between which we distinguish 5 categories of agricultural land and 5 non-agricultural categories, each having in turn subcategories of use (Călița, 2010).

The up-to-date maintenance of the areas by categories of use is done on the basis of the information collected from the agricultural register and the data provided by the county offices of cadastre and real estate advertising. The agricultural register is the official document of unitary primary evidence, which includes data on households and agricultural companies/associations, as well as any other individuals and/or legal entities that own land/use land and/or animals. The agricultural register is a source of data for the elaboration on a local level of some policies in the fields: fiscal, agrarian, social protection, cadastre, urbanistic, sanitary, school, public services of local interest and others. Therefore, the agricultural register is an administrative source of data for the

statistical information system, respectively: official statistics, preparation and organization of agricultural censuses, buildings and population, pilot surveys, organization of a system of statistical observations by survey, etc. The agricultural register provides the database for the realization with the help of electronic calculation systems of cross-checks between the data from the agricultural register and the data entered in specific registers kept by other institutions: Integrated Administration and Control System (IACS) from the Payments and Intervention Agency Agriculture (APIA); National Register of Farms (RNE) but also others (Order No. 734/2015 on the approval of the Technical Norms for completing the agricultural register).

If before 1989 there was a tendency to increase the areas destined for agriculture, especially of arable land, after the revolution, with the restoration of land rights, there was an oscillating evolution of agricultural areas, with a decreasing tendency. This evolution is closely related to the current needs of today's society.

## MATERIALS AND METHODS

To carry out this study we used the statistical data provided by the National Institute of Statistics of Romania. The areas of agricultural categories registered after 1990 are compared, until 2014 because after this year the series of data were blocked until the completion of the country cadastre register by the National Agency for Cadastre and Land Registration.

According to the methodology of the National Institute of Statistics, land fund represents all lands no matter of destination, of the title based on which they are owned or of public or private sector to which they belong. Also, the agricultural area includes, by use, the lands with agricultural destination, owned by natural or legal persons, classified as follows: arable land, natural pastures and hayfields, vineyards and vine nurseries, orchards and tree nurseries.

The lands with agricultural destination include five categories of use, with the following main characteristics:

- The arable land includes land that is plowing every year or several years (2-6) and which are cultivated with annual or perennial plants: cereals, legumes for grains, technical and industrial plants, medicinal and aromatic plants, vegetables, fodder plants.

- The pastures are grassed, naturally or artificially by periodic re-seeding, at 15-20 years old used for grazing animals.

- The hayfields are grassed, naturally or artificially, through the sowing at 15-20 years, from which the grass is mowed for hay.

- The vineyards include the fields planted with "hybrid vineyards" (direct producers) or "noble", hops crops with a similar agrotechnics and vineyards.

- The orchards are plantations with fruit trees and shrubs, having as sub-categories classical orchards (with interleaved, grassy, pure crops), intensive and superintensive (high density, with directed crowns and mechanization of maintenance and harvesting works), plantations of fruit trees (raspberries, currants) (Miluț, 2018).

## RESULTS AND DISCUSSIONS

According to the Law of the land fund 18/1991 "the lands of any kind, regardless of destination, title on the basis of which they are owned or by the public or private domain of which they are part, constitute the land fund of Romania".

As it is known, the surface of the Romanian land fund is 23,839,100 ha, being made up of agricultural and non-agricultural areas. These surfaces had certain variations throughout the period studied.

If we compare the year 1990 with 2014, the following breakdown by categories of agricultural use is shown by the data provided by the National Institute of Statistics:

Table 1. Total agricultural land fund, by use, in the year 1990 and 2014

Category of use	Area in the year 1990 (ha)	Area in the year 2014 (ha)
Arable	9450400	9395300
Pastures	3262500	3272200
Hayfields	1465300	1556300
Vineyards and nurseries	277400	209400
Orchards and nurseries	313400	196900
<b>Total agricultural area</b>	<b>14769000</b>	<b>14630100</b>

With reference to the year 1990, we observe a decrease in the area of arable land, vineyards and orchards and an increase of the areas of pastures and hayfields, against a decrease of 138900 ha of the total agricultural areas (Table 1).

Figures 1 and 2 shows the proportion of each category of agricultural land use in Romania in 1990, respectively 2014.

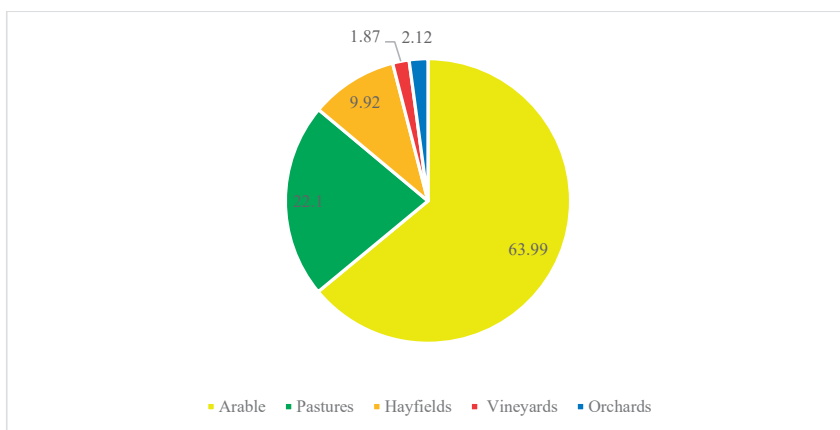


Figure 1. Agricultural land fund by use in Romania (%), 1990)

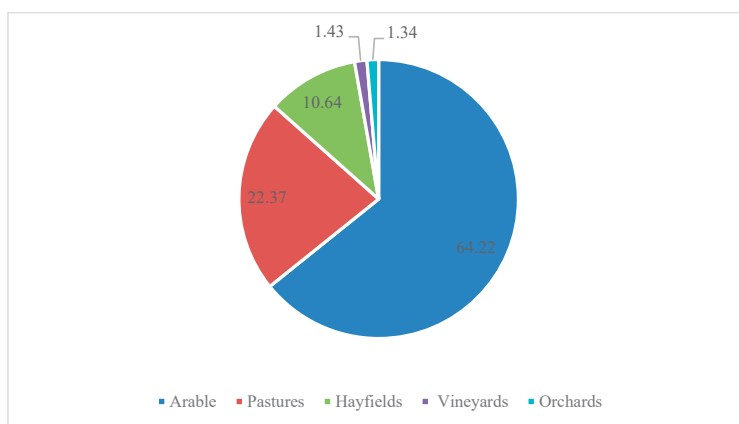


Figure 2. Agricultural land fund by use in Romania (%), 2014)

In order to have an image of the evolution after 1990 of the agricultural areas, in Table 2 the situation is presented for each category of agricultural use from 5 to 5 years, until 2014.

Table 2. Surfaces by agricultural category of use and by year (ha)

Category of use	Year					
	1990	1995	2000	2005	2010	2014
Arable	9450400	9337100	9381100	9420200	9404000	9395300
Pastures	3262500	3392400	3441700	3364000	3288700	3272200
Hayfields	1465300	1497700	1507100	1514700	1529600	1556300
Vineyards and vine nurseries	277400	292400	272300	224100	213600	209400
Orchards and tree nurseries	313400	277600	254600	218200	198600	196900

Figure 3 shows that the area of arable land had a maximum in 1990 when there were 9.45 million ha and a minimum in 1995 with only 9.33 million hectares.

The value closest to the maximum was recorded in 2005 (9.42 million ha).

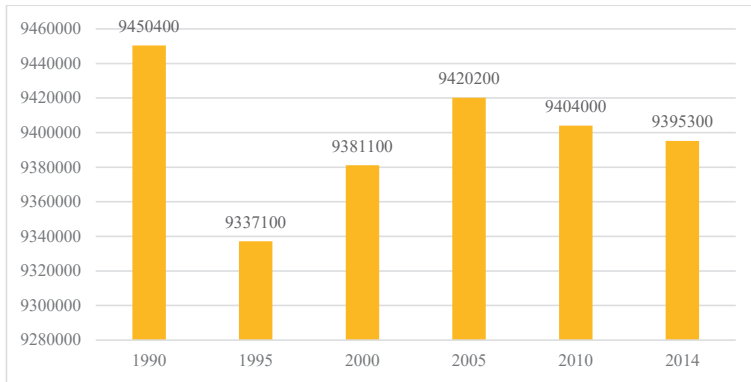


Figure 3. Variation of arable land surfaces by year (ha)

Regarding the pasture category, a rather oscillating evolution is observed during the analyzed period. As Figure 4 shows, there was an increase in the area of pasture until around

2000, from 3.26 million ha to 3.44 million ha, followed by a continuous decrease of them to 3.27 million ha in 2014.

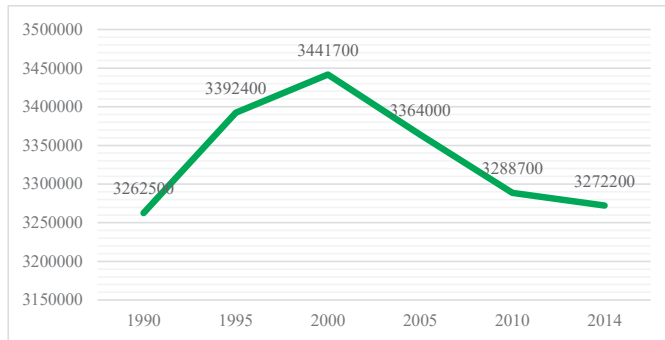


Figure 4. Variation of pasture areas in Romania, by years (ha)

If we refer to the hayfields category, they had a different evolution compared to pastures. Figure 5 shows a constant increase of them

from year to year, starting from 1.46 million ha in 1990 and reaching over 1.55 million ha in 2014.

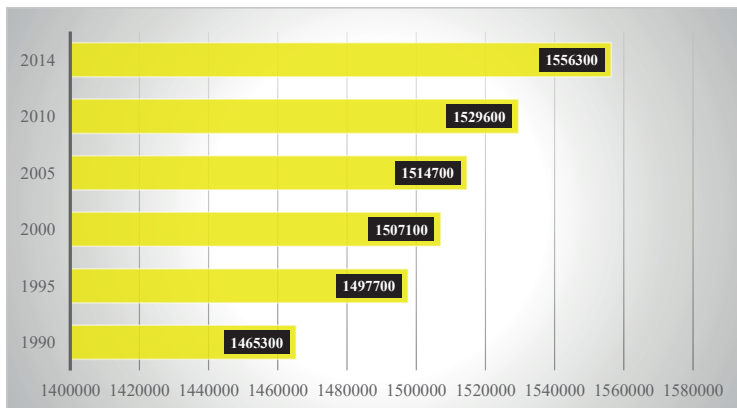


Figure 5. Variation of hayfields surfaces in Romania, by years (ha)

In the case of vineyards (Figure 6), there was a variation almost identical to that of pastures, in the sense that it had a positive evolution until around 1995, when there were 292400 ha, after which the areas decreased every year, reaching - it has an area of less than 210000 ha. This can be accounted for by the growth of the areas of hybrid vine after the revolution, when the

inhabitants replanted their surfaces at the time of collectivization. With the aging of the population in the rural area, with the migration of young people to cities or abroad, important areas of vines remained unused and then transformed into arable land, at least in the southern part of Romania.

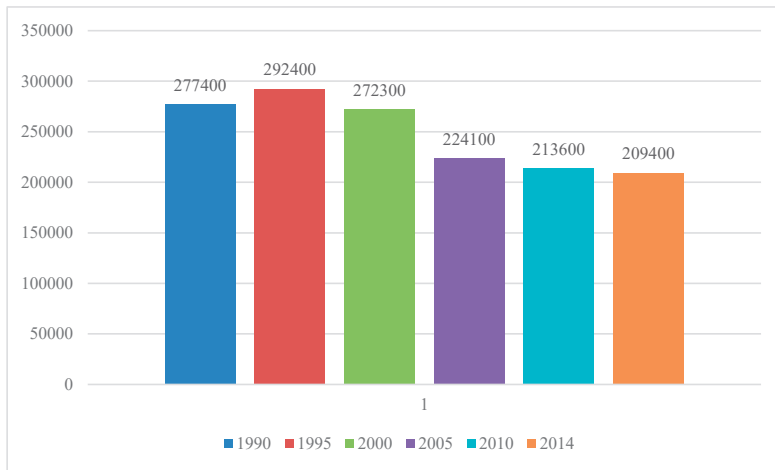


Figure 6. Variation of vineyards surfaces in Romania, by years (ha)

The category of orchards and orchards, showed a sharp decrease during the whole period analyzed, from 313400 ha in 1990 to 196900 ha in 2014 (Figure 7). This may be due to the fact that old plantations, without economic efficiency, have not been replanted.

However, it seems that in recent years there are signs that accessing programs on European funds, the areas planted with orchards have begun to grow.

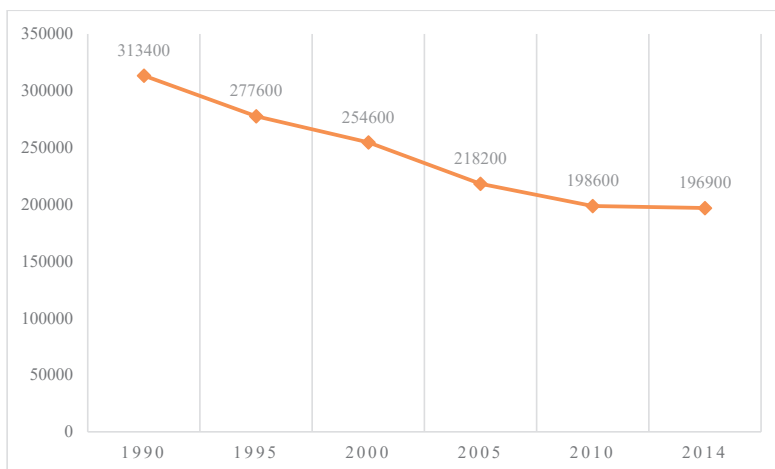


Figure 7. Variation of orchards areas in Romania, by years (ha)

## CONCLUSIONS

The agricultural area of Romania registered a decrease of almost 140000 ha compared to 1990, with a share of 61.37% of the total land fund.

The surfaces by categories of agricultural use had positive or negative oscillations during the studied period, their evolution being determined by the current needs of the present society.

The surface of arable land decreased by about 55000 ha, the pastures increasing after 2000 to the detriment of the hayfields.

The vineyards and orchards showed a tendency of decreasing surfaces after 1990, the areas being reduced by about 1/3.

It is necessary to update the information regarding the categories of use, together with the completion of the country cadastre register.

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