# THE EVOLUTION OF SURFACES IN ROMANIA, BY CATEGORY OF USE DURING 2000-2012

## MILUȚ MARIUS, C LINA JENICA, CROITORU ALIN

University of Craiova, Faculty of Agriculture, e-mail: milutmarius@yahoo.com

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## ABSTRACT

The work has a documentary character, based on data provided by the National Institute of Statistics and the specialized work of the cadastre. There are presented data on the distribution of land by use of Romania between 2000-2012 and an analysis of the evolution of these areas in the last decade.

#### INTRODUCTION

Land use category, individualized by a code, is one of the attributes in the plot and its highlighting in technical cadastre is necessary both to compile the Land Registry and for the establishment of the burdens imposed to real estate.

In Romania, the land fund is divided into two groups: group for agriculture and nonagricultural utilities group, each having five categories of use and approx. 56 subcategories of use.

The surface of use categories can increase or decrease, these developments are closely related to needs of society and market demands.

#### MATERIAL AND METHOD

Data used in preparing the paper are taken from the National Statistics Institute, therefore they stop at the level of 2012. Are compared the surfaces by category of use in Romania, beginning with year 2000.

#### DISCUSSIONS

As is known, the surface of the land fund of Romania is 23,839,100 ha, consisting of agricultural and non-agricultural land with small variations that took over the survey period. For the year 2000 data show the following distribution of land use categories:

Table 1

## Total land fund, by use, in the year 2000 and 2012

Category of use	Area in the year 2000 (ha)	Area in the year 2012 (ha)
Arable	9381100	9392300
Pastures	3441700	3270600
Hayfields	1507100	1544900
Vineyards and nurseries	272300	210500
Orchards and nurseries	254600	196800
Total agricultural area	14856800	14615100
Forests	6223100	6373000
Construction	632900	752400
Roads and railways	388200	388300
Waters and ponds	867800	836800
Other areas	636100	499600

If we take as a reference year 2000, the first referred to this study, reveals in 2012 a growth of arable and hayfields areas and a decrease of pastures, vineyards and orchards areas, due to a decrease in agricultural area over 240000 ha. For non-agricultural categories, a significant increase had forests and construction categories, while surface of other areas category (unproductive land) had a significant decrease of over 136,000 ha.

To get a clearer picture of the evolution of these categories of use, is presented the situation for each category of use for 2000 and 2007- 2012 years.

Table 2

Category of use	Year							
	2000	2007	2008	2009	2010	2011	2012	
Arable	9381100	9423300	9415100	9422500	9404000	9379500	9392300	
Pastures	3441700	3330000	3333000	3313800	3288700	3279300	3270600	
Hayfields	1507100	1531400	1532400	1528000	1529600	1554700	1544900	
Vineyards and vine nurseries	272300	218000	214500	215400	213600	211300	210500	
Orchards and tree nurseries	254600	206600	207300	205200	198600	196700	196800	
Forests	6223100	6314900	6309300	6334000	6354000	6362500	6373000	
Construction	632900	685700	692100	703300	728300	749400	752400	
Roads and railways	388200	390100	390400	389800	388900	388200	388300	
Waters and ponds	867800	849900	849300	833300	833900	822200	836800	
Other areas	636100	463200	476400	474900	495400	498700	499600	

## Surfaces by category of use and by year (ha)

(www.insse.ro)

As shown also in Figure 1, arable land fluctuated between 9.379 million ha in 2011 and 9.423 million ha in 2007.

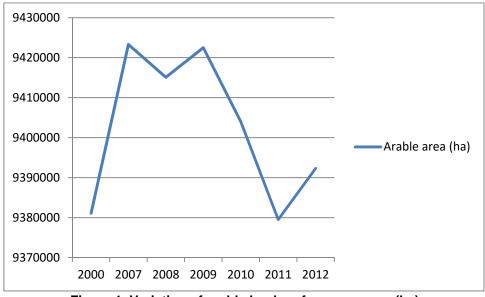


Figure 1. Variation of arable land surfaces per year (ha)

When referring to pastures category, is observed in Figure 2 continues the downward trend of these areas, from 3,441,700 hectares in 2000 to 3,270,700 ha in the last year studied.

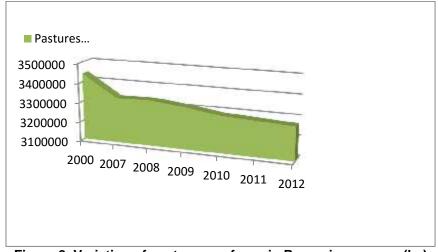


Figure 2. Variation of pastures surfaces in Romania, per year (ha)

In what concerns the hayfields areas, they had a inverse trend compared with pastures. In Figure 3 is observed their growth every year, except 2012, which do not fit into this trend.

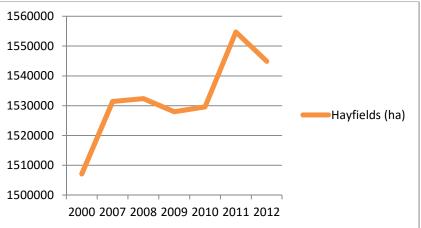


Figure 3. Variation of hayfields surfaces in Romania, per year (ha)

And in the case of areas under vineyards same downward trend recorded over the period studied, leading to 210500 ha in 2012 (Figure 4).

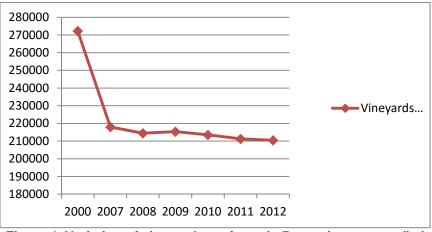
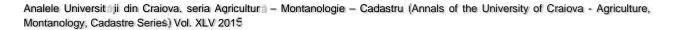
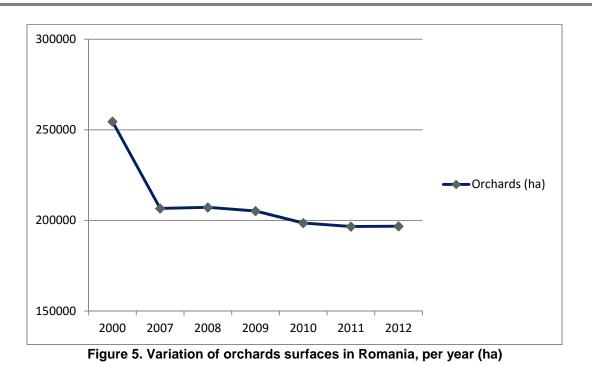


Figure 4. Variation of vineyards surfaces in Romania, per year (ha)

For category orchards and tree nurseries is a decrease in the area occupied by this category, from 254 600 ha (the year 2000) to around 200,000 ha in 2007-2012 (Figure 5).





In the case of forests, the statistics show a small but steady increase of surfaces occupied by this category of use, leading in 2012 to an area of 6.373 million ha (Figure 6).

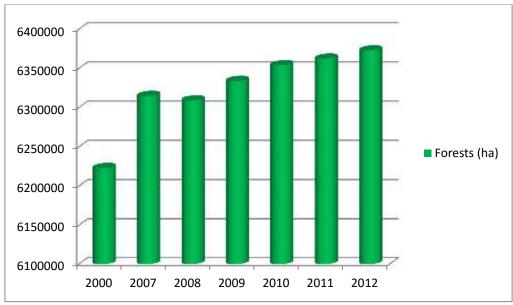


Figure 6. Evolution of forest areas in Romania, by year (ha)

The area occupied by construction has a permanent increase over the period, starting from 632 900 ha in 2000 and reaching to 752 400 ha in 2012 (Figure 7).

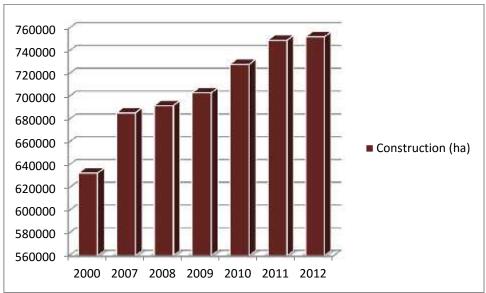


Figure 7. Evolution of construction areas in Romania, by year (ha)

The areas of roads and railways, also waters and ponds remained relatively constant over the period.

In Figure 8 presents the evolution of surfaces in the category Other Areas in Romania. There has been a sharp decrease in these areas between 2000 and 2001 from 636 100 ha to 494 400 ha, followed by a small but steady increase annually, reaching 499 600 ha in 2012 (Figure 8).

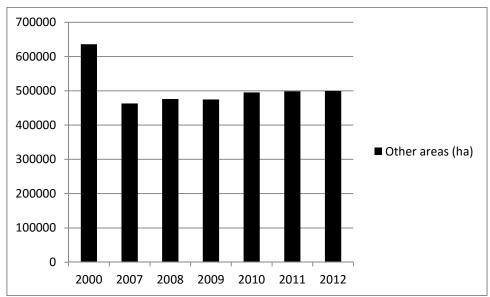


Figure 7. The evolution of surfaces occupied by the category Other Areas in Romania, by year (ha)

## CONCLUSIONS

1. Surface of use categories can increase or decrease, these developments are closely related to needs of society and market demands.

2. Of the total area of 23839100 ha Land Fund, agricultural use categories were occupying in the year 2012 a total area of 14615100 ha, maintaining a share of over 63% for agricultural production.

3. In the analyzed period there was an increase of hayfields areas at the expense of areas occupied by pastures.

4. For other categories of agricultural land - vineyards and orchards, the area had a decreasing trend over the period.

5. For categories of non-agricultural use, land occupied by construction has a permanent increase over time.

6. In the case of forests statistics contradict any idea that their area has decreased. It is observed increase the area covered by forests, from 6.223 million ha in 2000 to 6.373 million in 2012.

#### BIBLIOGRAPHY

1. **C lina A. and colab.,** 2010 – Topografie general *i inginereasc*, Editura Sitech, Craiova, ISBN 973-657-945-X;

2. Miluţ M., C lina Jenica, C lina A., Croitoru Alin, 2014, Elaborating documentations for changing the category of use to construct a field of photovoltaic panels, Annals of the University of Craiova - Agriculture, Montanology, Cadastre Series, pag. 127-131, Vol. XLIV/2 2014;

3. C lina Jenica, C lina A., Miluţ M., B buc N. - Surveying data processing for extension, land registration and construction improvement, Annals of the University of Craiova - Agriculture, Montanology, Cadastre Series, pag. 47-57, Vol. XLIV/2 2014;

4. X X X - Anuarul Statistic al României – 2013

5. <u>http://www.insse.ro/</u>