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### **Conference Paper**

Aspects regarding the evolution of organic farming in the EU member states: Areas, agents, manufacturers

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# ASPECTS REGARDING THE EVOLUTION OF ORGANIC FARMING IN THE EU MEMBER STATES: AREAS, AGENTS, MANUFACTURERS

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**Abstract:** This paper represents an analysis of the way in which the organic farming has evolved in the EU member states, focusing on the crop production. The analysed period is 2000-2011, years for which a full set of data was found. Data regarding the following have been analysed and interpreted: organically farmed areas, number of the manufacturers in the system and the main utilization categories for the organically farmed lands. The conclusions reinforce the idea that, in an era when the society is increasingly concerned with the health of its members and of the environment, the organic farming has gathered pace in the last years having an extremely dynamical evolution in Europe and not only.

**Key words:** Organic farming, organically farmed areas, organic farms.

#### INTRODUCTION

Having as its main purpose the accomplishment of sustainable, diversified and balanced agricultural systems that protect the natural resources and the consumers' health, the organic farming emphasizes the natural quality of products, the quantitative and productivity issues taking a secondary place.

A series of problems occurred in the last decades has led to the fact that the organic farming is increasingly accepted as the only viable alternative for producing healthy food and for a sustainable environmental protection, and the organically farmed areas are constantly extending year after year. Thus, currently, at the international level, 37.5 million hectares are organically managed (at the end of 2012).

The region with the largest area of organically farmed lands is Oceania, with 12.2 million hectares, followed by Europe, with 11.2 million hectares, Latin America (6.8 million hectares), Asia (3.2 million hectares), North America (3 million hectares) and Africa (1.1 million hectares).

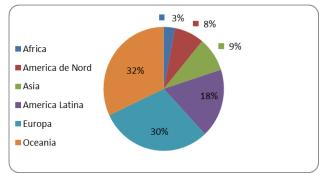


Figure 1. International distribution of the organically farmed lands (%)

Against this backdrop, it can be noticed that Europe has a leading position and many European Union countries support and are focused on the further development of this extremely dynamic sector.

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#### MATERIAL AND METHOD

Organic farming, being an important part of a sustainable agriculture, contributes to the long term evolution of the rural area. The effects of using this agricultural system are reflected in the sustainable development of the environment, in the rural economy but also in the society, in general. On the other hand, it can be stated that in the developed countries, with a higher standard of living, the organic farming has had a quicker pace than in the less developed countries, fact that is also visible in Europe. This paper presents all these aspects with the help of an analysis of the evolution of organically farmed lands, of the number of agents and manufacturers within this field of activity, in the European Union member states, from 2000 to 2011, analysis that was based on the statistical data from the European Commission. The conclusions of this analysis were drawn from interpreting the statistical data from the European Commission.

#### **RESULTS AND DISCUSSIONS**

## **Evolution of the organically farmed areas**

In Europe, the evolution of the organically farmed areas may be described as follows, in absolute figures:

- In 1993, the organically farmed area in Europe was of 0.8 mil. ha.
- During the period 2000-2011, the organically farmed areas have increased considerably, from 4.3 mil. ha to an estimated level of 9.6 mil. ha (+18.6 %/year).
- The growth rate was more spectacular for EU-12, where the area has increased from 0.34 mil. ha to 2.12 mil. ha (+52%/year).
- During the same period, in EU-15, the area has increased from 3.96 mil. ha to 7.49 mil. ha, with a lower growth rate of 15.7 %/year.

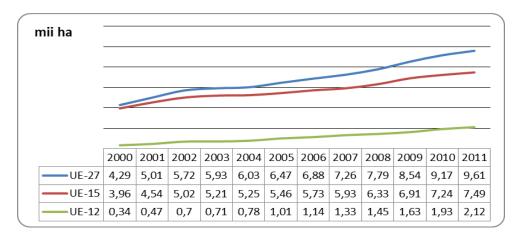


Figure 2. Evolution of the organically farmed areas in EU, 2000-2011

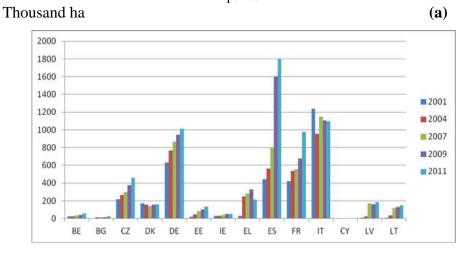
Table 1 and Figure 3 show the evolution of the organically certified and conversion areas, in the member states, in 2001, 2004, 2007, 2009 and 2011.

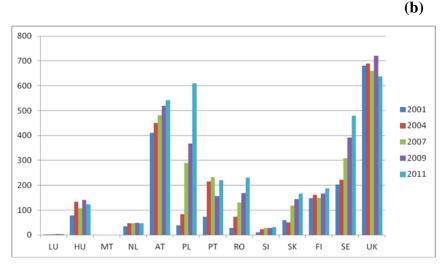
Table 1. Organically certified and conversion areas in the member states (thousand ha)

| COUNTRY   |      | BE | BG | CZ  | DK  | DE   | EE  | IE | EL  | ES   | FR  | IT   | CY | LV  |
|-----------|------|----|----|-----|-----|------|-----|----|-----|------|-----|------|----|-----|
| YEA<br>RS | 2001 | 22 | 1  | 218 | 168 | 632  | 20  | 30 | 31  | 445  | 420 | 1238 | 0  | 11  |
|           | 2004 | 24 | 12 | 263 | 157 | 768  | 46  | 31 | 250 | 562  | 534 | 954  | 1  | 26  |
|           | 2007 | 33 | 14 | 294 | 141 | 865  | 80  | 41 | 280 | 805  | 557 | 1150 | 2  | 173 |
|           | 2009 | 41 | 12 | 377 | 156 | 947  | 102 | 48 | 326 | 1603 | 677 | 1107 | 3  | 160 |
|           | 2011 | 55 | 25 | 460 | 162 | 1015 | 134 | 48 | 213 | 1804 | 977 | 1097 | 3  | 184 |

| COUNTRY   |      | LT  | LU | HU  | MT | NL | AT  | PL  | PT  | RO  | SI | SK  | FI  | SE  |
|-----------|------|-----|----|-----|----|----|-----|-----|-----|-----|----|-----|-----|-----|
| YEA<br>RS | 2001 | 6   | 2  | 79  | 0  | 36 | 411 | 39  | 74  | 29  | 11 | 59  | 148 | 203 |
|           | 2004 | 37  | 3  | 133 | 0  | 48 | 451 | 83  | 215 | 73  | 23 | 51  | 162 | 222 |
|           | 2007 | 120 | 4  | 107 | 0  | 47 | 482 | 289 | 233 | 131 | 29 | 118 | 149 | 308 |
|           | 2009 | 130 | 4  | 140 | 0  | 49 | 519 | 367 | 157 | 168 | 29 | 145 | 166 | 392 |
|           | 2011 | 152 | 4  | 124 | 0  | 47 | 543 | 609 | 220 | 230 | 32 | 167 | 188 | 480 |

Figure 3 (a, b). Organically certified and conversion areas in the EU state members during the 2001-2011 period





In absolute numbers, the member states with the largest areas in 2011 are Spain (1.8 mil. ha), Italy (1.1 mil. ha), Germany (1.01 mil. ha), Great Britain (0.63 mil. ha), Poland (0.6 mil. ha) and France (0.97 mil. ha). All together represent 56.8 % of the organically farmed areas of EU.

During this period, the area is quite stable in several member states (Belgium, Ireland, the Netherlands, Finland and the United Kingdom). The farmed area was constantly declining only in

Denmark and this could have been due to the fact that in this country, the sector reached a certain maturity, its development starting prior to that of the majority of the member states.

In Italy, following three years of growth, in 2008, the organically farmed area has registered a decline of approximately 0.15 mil. ha, visible in the next year also, and in 2011, the area was of 1 mil. ha.

For a larger group of member states (Germany, three Baltic States, Greece, Spain, Poland, Romania and Slovakia), the evolution of the sector may be characterized as dynamic, with a constant increase of the organically farmed areas. Several EU-12 state members are included in this group, the sustained increase being partially explained by the support given to this sector prior to EU accession and by its increase following the accession.

For Spain and Greece, the increasing dynamics probably show a late start of this sector, the catching up effect being present.

The case of Spain is very spectacular, with an area increase of approximately 0.3 mil. ha between 2007 and 2008 and of 0.2 mil. ha between 2009 and 2011.

Although Germany is not a newcomer as regards the organic farming, it shows a constant interest and support for its development.

Nevertheless, it can be stated that the organically farmed areas have a quite moderate growth in several member states (Check Republic, Austria and Sweden). This can be explained by the fact that these states have reached a certain level of maturity (for example, Austria and Sweden, countries in which the importance of this sector is already high), nevertheless, the sector development continues to be considerably supported (Austria) because there still is a growth potential.

Analysing the diagram above, the figures indicate that the large member states also have larger organically farmed areas. The analysis of the weight of organically farmed area in the total agricultural area indicates clearly the importance of the sector in each member state, and a ranking is also possible.

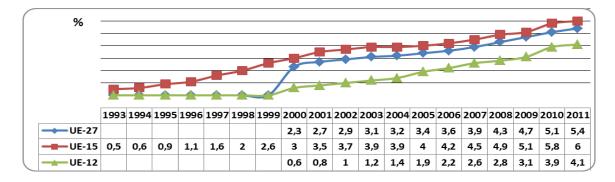


Figure 4. Evolution of the organically farmed areas in the total UAA of EU (%)

In 2011, in EU-27, the organically farmed area represented 5.5 % of UAA (utilized agricultural area), compared to 5.1% in 2010. For EU-12 and EU-15, the related figures were 4.1 % and 6 %, respectively, also higher than in 2010. For EU-15, in the period 2003-2004, the weight of organically farmed areas had a slight standstill, but after that, in 2005-2008 it has returned to the upward trend.

EU-12 has had a dynamic growth, strengthened starting with 2005 due to the EU accession.

18 16 14 12 10 Bulgaria Irlanda Cipru EU N12 Cehia Danemarca Estonia Grecia Spania Franța Italia Letonia Lituania Malta Olanda Germania Austria

Figure 5. Weight of the organically farmed areas in the total UAA in 2011 (%)

As it can be seen in Figure 5, with a quota of 19 %, Austria is the member state where the importance of the organic farming compared to the total UAA is the highest. It is followed by Sweden and Estonia with 15.7 % and 14.1 % respectively. Czech Republic has a weight of 13.1 %, followed by Latvia with 10.1 %.

It is interesting to note that within EU-12, 5 member states (Czech Republic, Estonia, Latvia, Slovenia and Slovakia) already exceed the average of EU-27 of 5.4 %. In these member states, the development of the organic farming has been extremely rapid. On the other hand, six member states of EU-15 have lower weights than the average of EU: UK and Belgium of approximately 4 %, France, Luxembourg and the Netherlands of 3 % and Ireland of 1.1 %. Here, the situation of our country can also be noted, where this sector has been rapidly growing, but only starting from 2000, together with the foundation of the legal basis for the setting up of production and trading of organic products. This was the Emergency Government Decision no. 34/2000, approved by Law No. 38/2001 and the Government Decision No. 917/2001 on the Methodological standards for the enforcing of the provisions of EGD No. 34/2000. According to the last data from the European Commission, the growth is even higher in Romania in the period 2011-2012, taking into account that in 2011, the weight was of 1.6 %, and in 2012 it already reached 2.1 %, the farmers being attracted by the funds that can be accessed for this type of production.

#### **Evolution of the number of organic farms**

In order to better understand the interest of farmers and of other system agents in the organic farming, the evolution of the total areas of the organic farming has to be analysed together with the number of active farms in this field. Figure 6 shows that there is an upward trend of the number of organic farms for the studied time period.

It is estimated that in 2008, there were approximately 197.000 farms involved in the organic farming in EU-27, 2.9 % of the total number of EU-15 farms, respectively, but only 0.6 % in EU-12.

In EU-27, the weight of organic farms was of 1.4 % of the total number of farms. At the level of member state, it has varied from less than 0.1 % (Bulgaria and Romania) to 12.2 % (Austria).

In 2010, there were more than 186.000 farms in the field of organic farming in Europe, most of them (83 %) belonging to EU-15. Nevertheless, for EU-15, this number represented only 3 % of the total number of farms in 2010. For EU-27, only 1.6 % of the farms were active in the field of organic farming.

200 000

180 000

140 000

140 000

80 000

60 000

40 000

20 000

0

2003

2005

2007

2010

Figure 6. Evolution of the number of organic farms in EU

The increase of the number of organic farms can be also noticed for EU-15. For EU-12, during the period 2003-2005, the number of farms has increased with a quarter and reached more than 31.900 in 2010. In EU-15, the upward trend was less spectacular than in EU-12, but it is still in general with 80 % higher than in the newest EU member states.

Within EU-15, Italy, Spain, Germany, Greece and France have the highest number of organic farms. Within EU-12, Poland is leading, with levels similar to the other EU member states.

Data on the total number of agents in the organic farming (producers, processors and importers) also show an upward trend.

Thus, the number of producers in the field of organic farming had only an upward trend. Is can also be noted that there are some ins and outs from the sector, but, in general, it seems that the producers have the tendency to rather stay within the organic farming sector than to abandon this type of production.

This aspect could be explained by the fact that farms make an important investment during the three years of the conversion period imposed by the Regulation of organic farming when, in spite of the high costs, the production is traded as in the case of conventional agriculture.

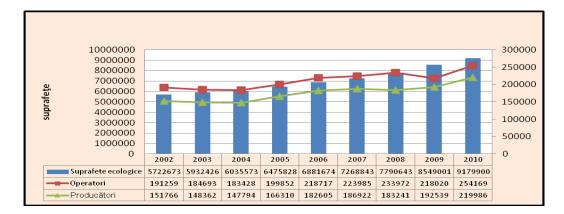


Figure 7. Evolution of the areas, agents and producers involved in organic farming in EU

In general, it can be stated that the average size of the organic farms is higher than the average of all the farms (in 2008, it was of 13 ha for the average farm in EU-27 and 38 ha for the organic farms). Besides, the managers of the organic farms are younger than those of the non-organic farms: 56 % of the farmers within the conventional agriculture are older than 55 years, thus being the case for only 36 % of the organic farmers.

In 2010, the average area of the organic farms in EU-27 was of 34 ha. This area varies significantly in the member states (Figure 10). In 2010, Slovakia ranked in the first place, where the total average area is of 453 ha/farm. In the Czech Republic, it is of 169 ha/farm, in Great Britain of

114 ha/farm, followed by Estonia with 91 ha/farm, Sweden with 81 ha/farm and Denmark with 78 ha/farm. The smallest farms are located in Malta (3 ha/farm), Cyprus (6 ha/farm), Greece (8 ha/farm) and Slovenia (14 ha/farm). Among the member states, except Slovakia, Czech Republic and Estonia, figures for Lithuania and Romania show the largest areas for organic farms (55 ha/farm and 47 ha/farm, respectively).

The average area of the organic farms can also be compared to that of the conventional farms. Thus, it can be noticed that the average area of organic farms is larger than that of the conventional farms, within EU-27, the difference being very significant in some member states.

If, for EU-27, approximately 48 % of the total farms have a size of less than 2 ha, only 6.2 % of the organic farms are in the same category. Nevertheless, the conventional agriculture, with farms of 2 ha or less, includes a lot of farmers for which agriculture represents only a part of their activity and are not likely to focus on organic farming. Nevertheless, analysing other sizes, the organic farms tend to be larger than the conventional ones.

## The main utilization categories

Within the European Union, the organic farming in the field of plant crops and orchards is very important. Table 2 shows the main types of land utilization for organic plant crops and fruit tree production. Data indicate that organic grain legumes and permanent crops represent more than 15 %, and more than 10 % respectively than the total farmed area in EU-27 for the same crop categories.

Permanent grasslands and green fodder represent approximately 60 % of the entire organic lands. Together with the permanent crops, their weight reaches 73 % of the total organic areas in EU. In the majority of member states, cereal crops follow the above mentioned categories, as regards the area, followed by oilseeds, vegetables and grain legumes.

| Utilization categories      | Organically certified land (ha) | % of the total organic land | % of the total utilized land |  |  |
|-----------------------------|---------------------------------|-----------------------------|------------------------------|--|--|
| Total crops                 | 9,613,500                       | 100.0                       | 5.4                          |  |  |
| Cereal crops                | 1,405,152                       | 14.6                        | 2.5                          |  |  |
| Grain legumes               | 211,568                         | 2.2                         | 16.0                         |  |  |
| Industrial crops (oilseeds) | 103,804                         | 1.9                         | 1.4                          |  |  |
| Permanent grasslands        | 4,317,205                       | 44.9                        | 7.5                          |  |  |
| Permanent crops (orchards)  | 1,529,289                       | 13.1                        | 11.0                         |  |  |

Table 2. The main utilization categories for the organically certified land in EU-27, in 2011

#### **CONCLUSIONS**

In Europe, there are some key features characterizing the evolution of the organic farming:

- In Europe, the organic farming has been rapidly growing in the last years. This is specific not only to the organic farmed area, but also to the number of organic farms and, in general, to the system agents that are registered in EU-27.
- Although a significant part of the farms and lands are still located in EU-15, the newest EU member states showed encouraging evolutions in this regard, especially in the context of the additional funding provided by EU for this type of production, even prior to the accession.
- In the EU member states, the organic livestock production, and the plant and fruit growing have the same upward trend.
- The organic farms are in average larger than the non-organic farms and their owners are younger than the other farmers.

• The lack of sufficient data regarding some aspects of organic farming and of the organic food chain (especially connected to sales and trade in general) does not allow that a complete and very detailed image to be offered in this moment.

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