

RESEARCH ON THE EVOLUTION AND CURRENT STATE OF ORGANIC AGRICULTURE WORLDWIDE

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Abstract

Organic farming can be defined as a method of production which places the highest emphasis on environmental protection and animal welfare considerations. The purpose of this study was to analyze the evolution and current status of organic agriculture worldwide, with special reference to organic agricultural land, the share of organic agricultural land in total agricultural land, the number of organic producers, the use of organic agricultural land and the organic food market. To achieve these objectives we have studied the official statistical data, we calculated the percentage difference between the reference years and we interpreted data obtained. This study shows that organic agricultural land area in 2009 was 37.5 million hectares, being 3.55 times higher as compared with the existing area in 1999 and representing about 1% of the total agricultural area in the world. As regards the use of organic agricultural land in the world, it was found that in 2009 the largest part of them, namely 61.7% were occupied with permanent grasslands, 14.8% with arable land, 3.1% with permanent crops and 20.4% had other purposes. Also this study shows that in 2009 there were 1.8 million organic producers and the organic food market has tripled in the last ten years.

Key words: organic agriculture, agricultural land, producers, market

INTRODUCTION

In a world where agriculture has become more a source of income rather than a resource of food, repair of serious imbalance caused by super intensive agricultural systems based on excessive use of chemicals may be achieved by the adoption of new strategies to protect natural resources (soil, water, air), plants, animals and people against pollution and continuous degradation.

Organic farming is an agricultural system that seeks to offer fresh, tasty and authentic food to consumers while respecting at the same time the natural life cycle of systems. Also organic farming can be defined as a method of production which places the highest emphasis on environmental protection and animal welfare considerations.

Organic farming is now practised in approximately 160 countries of the world and the area under organic management is continually growing [2]. The purpose of this

study was to analyze the evolution and current status of organic agriculture worldwide.

MATERIAL AND METHODS

The analyze of organic farming evolution worldwide was made in 1999-2009 period with special reference to organic agricultural land, the share of organic agricultural land in total agricultural land, the number of organic producers, the use of organic agricultural land and the organic food market. To achieve these objectives we have studied the official statistical data provided by different institutions (FAO, IFOAM, FIBL, Agence BIO, etc.), we calculated the percentage difference between the reference years and we interpreted data obtained.

RESULTS AND DISCUSSIONS

Organic farming is a sector of agriculture which has registered a constant growth in recent years. According to the latest data (Table 1) on organic agriculture (data as of end of 2009) there is 37.5 million hectares organic agricultural land worldwide (including in-conversion areas). From the

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analysis of the data presented in Table 1 it can thus ascertain that in 1999-2009 period (10 years) the area of organic agricultural land increased by 3.55 times and the annual rate of growth was 16.4%. The strongest growth rates in the last ten years were observed in Asia, Latin America and Africa, regions where the development of organic farming has really started from 2000 year.

The regions with the largest areas of organic agricultural land are Oceania (12.2 million hectares), Europe (9.5 million hectares), and Latin America (8.6 million hectares). In 2009 the percentage distribution of organic agricultural land according to geographical region is as follows: Oceania 32.4%, Europe 25.4%, Latin America 22.8%, Asia 9.6%, North America 7.1% and Africa 2.7%. About one third of the world's organic agricultural land – 13.4 million hectares - is located in developing/transition countries and in emerging markets [3]. Most of this land is in Latin American countries, with Asia and Africa in second and third place.

In 2009, the total organic agricultural land worldwide increased more than 2 million hectares from 2008 (+ 6%). In one year, the organic agricultural land has increased in Europe by 12%, 9% Asia, in Africa 17%, and Latin America of 6%. They have almost stagnated in Oceania [5].

The largest increases in 2009 were registered in Argentina (391,000 additional hectares), Spain (285,000 additional hectares) and Turkey (216,000 additional hectares).

Conversely, decreases were observed in some countries, especially in the Portugal (fewer 57,000 hectares), at Nicaragua (fewer 37,000 hectares) and in Australia (less 21,500 hectares). The decline of the surfaces certified organic in these countries does not mean that in the practical, the organic mode of production is abandoned.

Apart from the organic agricultural land there are further organic areas, the largest part of these are wild collection areas and areas for beekeeping. Further areas are aquaculture, forest and grazing areas on non-agricultural land. It should be noted, that many countries do not report these areas, as

they only communicate the agricultural land. The total area for these areas was 41.9 million hectares (Figure 1), constituting an increase of 10 million hectares in 2009 compared with 2008.

The countries with the most organic agricultural land in 2009 (Figure 2) are Australia (12.0 million hectares), Argentina 4.4 million hectares), and the United States of America (1.95 million hectares).

Currently 0.9 percent of the world's agricultural land is organic. As regards the share of organic agricultural land of total agricultural land by region, the situation is as follows (table 1): Oceania 2.8%, Europe 1.9%, Latin America 1.4%, North America 0.7%, Asia 0.3% and Africa 0.1%.

The countries with the most share of organic land from total agricultural land in 2009 (Figure 3) are Falklands Islands (35.7%), Liechtenstein (26.9%) and Austria (18.5%).

From the data presented in Table 2 it may be established that in 2009 the number of organic farms worldwide was 1,809,310. It can thus ascertain that in 1999-2009 periods (10 years) the number of organic farms increased by 7.22 times and the annual rate of growth was 62.2%. If in 2000 the European continent owned the largest proportion of organic holdings (50.7%) in 2009 the largest share of organic farms it owns Asia (40.4%) followed by Africa (28.3%) [5].

There were 1.8 million producers in 2009, an increase of 31 percent since 2008, mainly due to a large increase in India. Forty percent of the world's organic producers are in Asia, followed by Africa (28 percent), and Latin America (16 percent). The countries with the most producers are India (677,257), Uganda (187,893), and Mexico (128,862).

Concerning the use of organic agricultural land in 2009, the data presented in Figure 4, show that 61.7% from these areas were occupied with permanent grassland, 14.8% with arable land, 3.1% with permanent crops and 20.4% had other purposes than those previously mentioned [3].

Table 1 Evolution of organic agricultural land worldwide in 1999-2009 period (million hectares)

Specification	1999	2004	2009	Distribution of organic agr. land by region (%)*	Share of total agr. land (%)*
Europe	3.6	6.5	9.5	25.4	1.9
Oceania	5.3	12.2	12.2	32.4	2.8
Asia	0.04	4.0	3.6	9.6	0.3
Latin America	0.5	6.4	8.6	22.8	1.4
North America	1.1	1.7	2.7	7.1	0.7
Africa	0.02	0.8	1.0	2.7	0.1
World	10.56	31.6	37.5	100	0.9

Sources: Agence BIO and FiBL & IFOAM Survey 2011
*in 2009

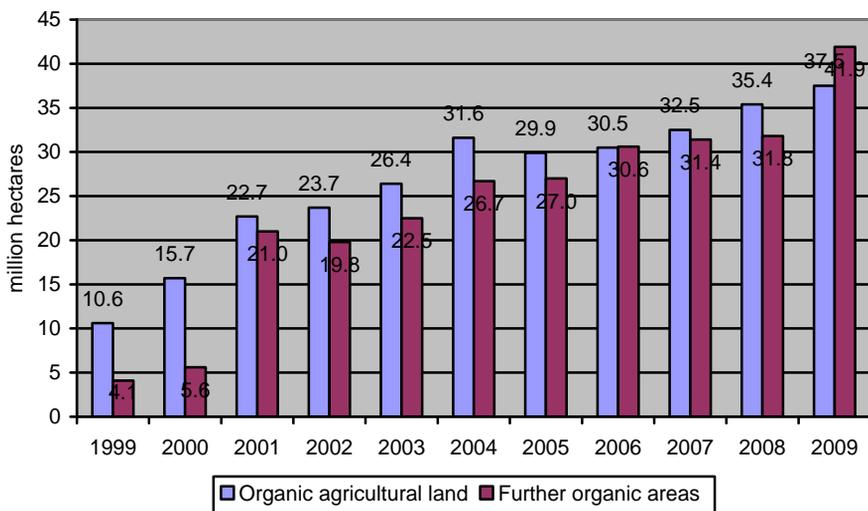


Figure 1 Development of organic agricultural land and other organic areas 1999 to 2009
(Sources: Agence BIO and FiBL & IFOAM Survey 2011)

Table 2 Evolution of the organic farms number worldwide in 2000-2009 periods

Specification	2000	2004	2009	Distribution of organic farms by region (%)*	Distribution of organic producers by region (%)*
Europe	142,070	154,131	258,923	14.3	14
Oceania	2,367	2,622	8,466	0.5	1
Asia	15,801	142,688	730,247	40.4	40
Latin America	67,839	192,995	282,993	15.6	16
North America	9,700	11,481	17,069	0.9	1
Africa	12,800	118,558	511,612	28.3	28
World	250,577	622,515	1,809,310	100	100

Sources: Agence BIO and FiBL & IFOAM Survey 2011
* in 2009

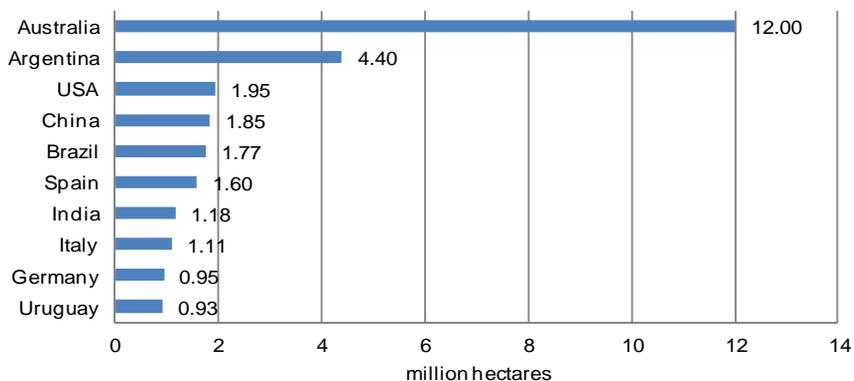


Figure 2 The ten countries with the most organic agricultural land 2009 (Sources: Agence BIO and FiBL & IFOAM Survey 2011)

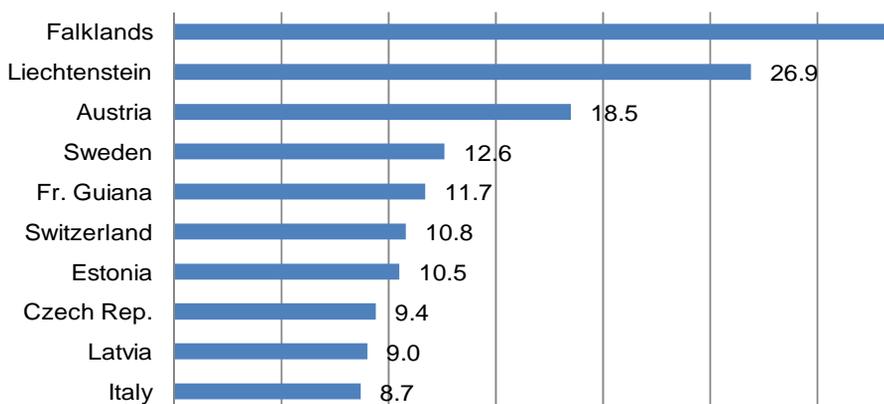


Figure 3 The ten countries with the highest shares of organic agricultural land 2009 (Sources: Agence BIO and FiBL & IFOAM Survey 2011)

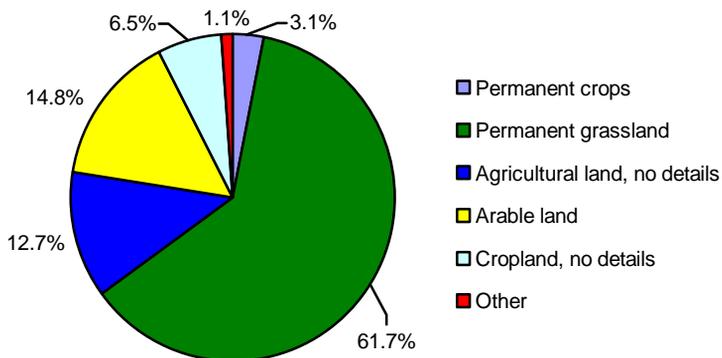


Figure 4 Use of organic agricultural land worldwide in 2009 (Source: FiBL & IFOAM Survey 2011)

Table 3 Organic livestock 2009 in EU (number of heads)

Specification	Cattle	Sheep	Goats	Poultry	Pigs
Organic livestock	2,558,619	3,484,092	577,613	23,765,833	642,426
% of total livestock	2.9%	3.4%	4.8%	1.8%	0.4%

Source: Eurostat

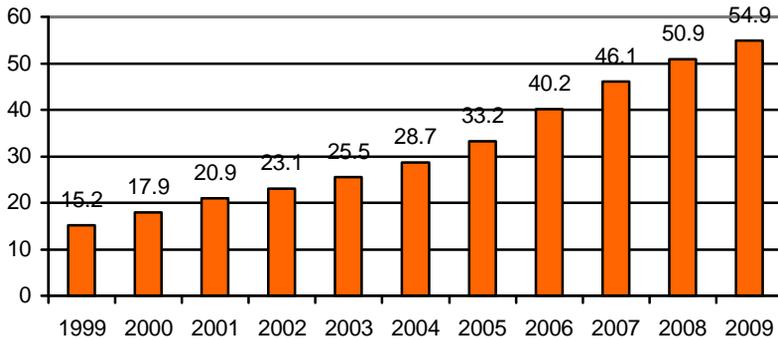


Fig. 5 Evolution of the global organic food market from 1999 to 2009 (\$ billions) (Sources: Agence BIO after FiBL & IFOAM and Organic Monitor 2011)

In the organically reared livestock (data only provided by European Union), the number of cattle was 2,558,619 heads in 2009, representing approximately 2.9% of total EU cattle livestock, sheep 3,484,092 heads (3.4% of the total number), goats 577,613 heads (4.8% of the total number), poultry 23,765,833 heads (1.8% of the total), and pigs 642,426 heads (0.4% of the total number) (Table 3). Thus, these data show that goats, sheep and cattle are the most popular species reared using organic production methods [1].

Global demand for organic products remains robust with sales increasing by over 4-5 billion US Dollars a year. Organic Monitor estimates international sales to have reached 54.9 billion US Dollars in 2009, which are 3.6 times higher compared of 1999 when sales were at 15.2 billion US Dollars [5].

Consumer demand for organic products is concentrated in North America and Europe. These two regions comprise 97% of global revenues. Other regions like Asia, Latin America and Oceania are important producers and exporters of organic foods.

The countries with the largest markets are the USA (24.8 billion US Dollars), Germany (8.1 billion US Dollars), and France (4.2 billion US Dollars). The countries with the highest annual per capita consumption are Denmark (139 Euros), Switzerland (132 Euros) and Austria (104 Euros) [4].

CONCLUSIONS

1. The organic agricultural land area in 2009 was 37.5 million hectares, being 3.55 times higher as compared with the existing area in 1999 and representing about 1% of the total agricultural area in the world.

2. Worldwide the number of organic farms was 1,809,310 and there were 1.8 million organic producers, which led to an organic food market amounting to 54.9 billion dollars in 2009.

3. Approximately 60% from organic agricultural land existing worldwide in 2009 were occupied with permanent grassland and this is correlated with the fact that ruminant animals are the most popular species reared using organic production methods.

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