

Dynamics of World Organic Farming

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Abstract: Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It mainly relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation, and science to benefit the shared environment and promote fair relationships and good quality of life for all involved. Therefore, considering the importance of organic farming in the conservation of natural resources, a study based on secondary data obtained from the International Federation of Organic Agriculture Movements survey for the period 1999 to 2019, was planned to examine the trends and patterns in the growth of an area and the number of organic producers around the globe. The results revealed that the area covered by organic farming over the first two decades of the 21st century constituted a tiny part (1.5%) of the world's total agricultural land in 2019, whereas at the regional level, Oceania could devote the largest proportion (9.6%) of the agricultural land to organic farming in the same year. In absolute terms and by a number of countries, there has been a significant increase in the second decade of the 21st century. Among important countries, India followed by USA, France, Bolivia, Ukraine, Mexico, Spain, Kazakhstan, Brazil and Hungary witnessed the largest increase in organic farmland. In 2019, the number of organic producers has also grown significantly during the last decade with the highest of 13.66 lakh in India. The largest proportion of the world's total organic land has been devoted to arable crops wherein the cereals constituted its highest share. In absolute term, Australia followed by Argentina and Spain was found to be the nations with the greatest amount of organic agricultural land. The analysis further indicates that the countries with the highest share of organic agricultural land to farm land included Liechtenstein, Austria, Sao Tome and Principe, Estonia, Sweden, Switzerland, Czech Republic, Uruguay, Italy and Latvia.

Keywords: Dynamics, organic agriculture, trends, pattern, countries

1. Introduction

The most well-known aspect of organic farming is the absence of synthetic pesticides and fertilizers. The focus in organic farming is on managing inputs in a way that promotes the biological functions of readily available nutrients and insect defence, i.e., the resource "nature" is modified to promote processes that help to increase and maintain agricultural productivity. The Food and Agriculture Organization defines organic farming as a holistic production system of crops that avoids the use of synthetic and chemical inputs like fertilizers, pesticides, growth regulators and livestock feed additives. To maintain soil productivity and deliver essential nutrients, organic farming systems depend completely on crop rotation, agricultural residues, livestock manure, legumes, green manures, off-farm organic residues, mineral-bearing rocks, biological pesticides and biological pest management. The FAO also clearly summarised the goals of organic farming: (1) organic agriculture promotes food access by raising earnings, (2) lowering risks for farmers, (3) enhancing productivity, (4) diversity, and (5) conservation of natural resources. The exchange of knowledge among farmers also leads to improvement. These advantages result in a decrease in poverty and a turnaround in rural outmigration. Organic farming is also a way to establish an evergreen revolution. Keeping in view the importance of organic farming in this study an attempt has been made to look at the globe on trend, patterns and growth of organic farming. More specifically, the objective of the study was as given below:

Objective

To examine world wide trend, pattern and growth in organic farming

2. Methodology

The study is based on secondary data obtained from the International Federation of Organic Agriculture Movements report on time series statistics on organic farming. The data were subjected to computation of trend pattern and growth rates.

The per cent organic share over years was calculated by:

$$\text{Percent organic share} = \frac{\text{Land under organic agriculture}}{\text{Total land under agriculture}} * 100$$

The per cent changes for area under organic agriculture and number of organic producers have been arrived at by computing per cent changes in 2019 (current year) over the base period of 1999 by applying the formula mentioned below:

$$PC = \frac{CYF - BYF}{BYF} * 100$$

Where,

PC = Per cent change in 2019 over 1999, CYF = Current Year Figure and BYF = Base Year Figure

3. Results and Discussion

The trend in the increase of the world's total organic agricultural land from 1999 to 2019 can be visualized from Figure 1. The overall area under organic agricultural land in the world has risen from 11 million hectares in 1999 to 72.3 million hectares in 2019, which reveals 557.27 per cent increase along with an ever-increasing trend. In 2019, the top ten nations that saw the biggest growth in organic farms are shown in Figure 2. A glance at the graph reveals that

India experienced the greatest change in the area under organic farmland in 2019 with a rise of 3.61 lakh hectares followed by the USA, France, Bolivia, Ukraine, Mexico, Spain, Kazakhstan, Brazil and Hungary in the list.

Table 1 displays the absolute area & percentage of agricultural land used for organic farming in 2019. According to the statistics, there was nearly 72.3 million hectares of organic agricultural land in 2019 (including areas that were still undergoing conversion). Only 1.5 per cent of

the world's total agricultural area has been used for organic farming (Table 1).

Figure 3 shows the distribution of organic land by geographic region. According to Table 1 & Fig. 3, Oceania accounted for nearly 50 per cent of the world's total organic agricultural land followed by Europe (23%) of the world's total organic agricultural land. Latin America occupied 11.47 per cent of world's total organic agricultural land, followed by Asia (8.17%), North America (5.04%) and Africa (2.81%).

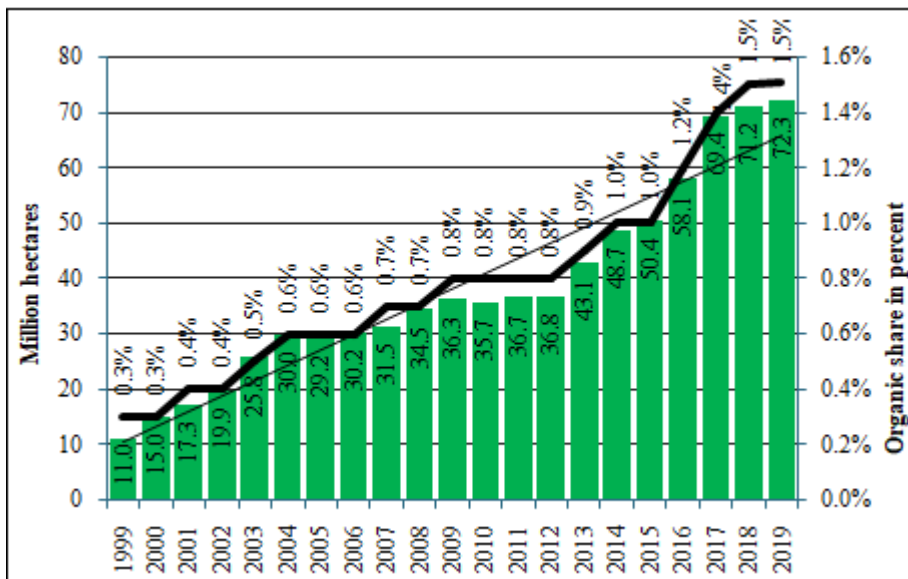


Figure 1: Yearly trend of agricultural land under organic, 1999-2019

Source: FiBL-IFOAM-SOEL-Surveys 2001-2021

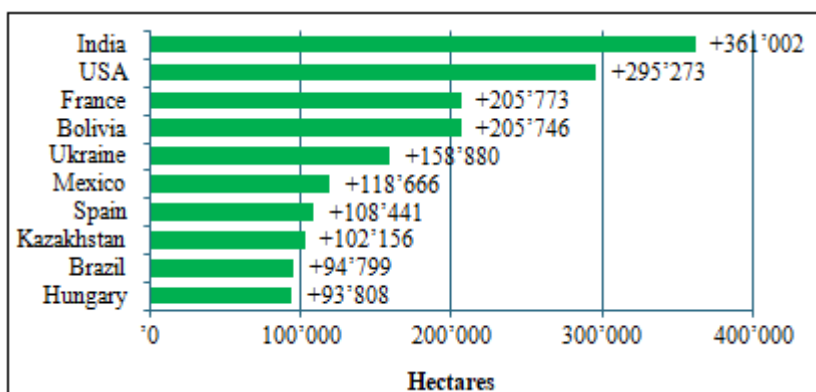


Figure 2: Ten countries with the largest increase of organic farmland, 2019

Source: FiBL survey 2021

Table 1: Regional use of land under organic agriculture, 2019

Region	Organic agri. land [ha]	Per cent of total	Share of total agri. land (%)
Africa	20,30,830	2.81	0.2
Asia	59,11,622	8.17	0.4
Europe	1,65,28,677	22.87	3.3
Latin America	82,92,139	11.47	1.2
North America	36,47,623	5.04	0.8
Oceania	3,58,81,053	49.64	9.6
World*	7,22,85,656	100	1.5

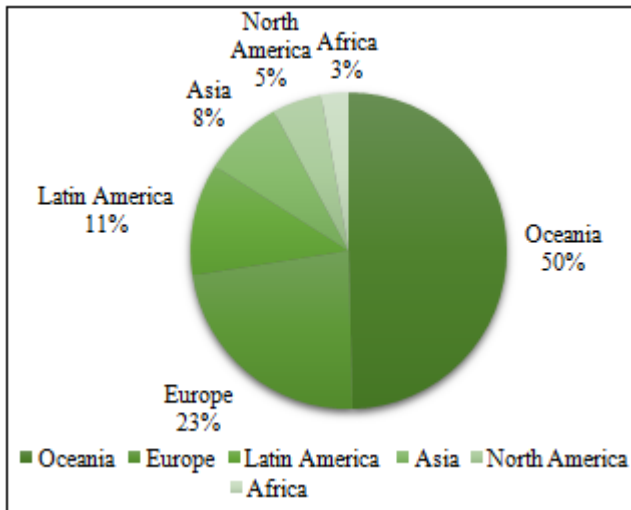


Figure 3: Regional use of land under organic agriculture, 2019

Source: FiBL survey 2021

The top ten nations in terms of how much of their agricultural land was used for organic farming in 2019 have been shown in Figure 4. The graph clearly shows that more than 14 per cent of the agricultural land in these ten nations was under organic farming. According to the graph, 41 per cent of all agriculture in Liechtenstein comprised of organic form. Austria, which has turned 26.1 per cent of its total agricultural land into organic land, was the next in importance.

The other nations on the list included Sao Tome and Principe, which covered 24.9 per cent of its land area in organic farming, Estonia (22.3%), Sweden (20.4%), Switzerland (16.5%), the Czech Republic (15.4%), Uruguay (15.3%), Italy (15.2%) and Latvia (14.8%).

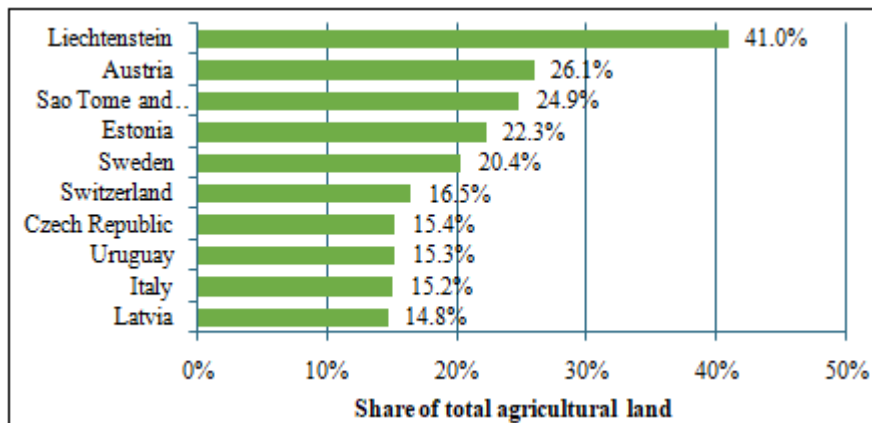


Figure 4: Countries possessing shares of organic agricultural land, 2019

Source: FiBL survey 2021

The increasing trend in the total number of organic producers worldwide from 1999 to 2019 can be visualized in Figure 5. Looking at the graph, it is evident that the number

of organic producers has increased over time, from 0.2 million in 1999 to 3.1 million in 2019, revealing the per cent change of 1432.10 in the year 2019 over the base year 1999.

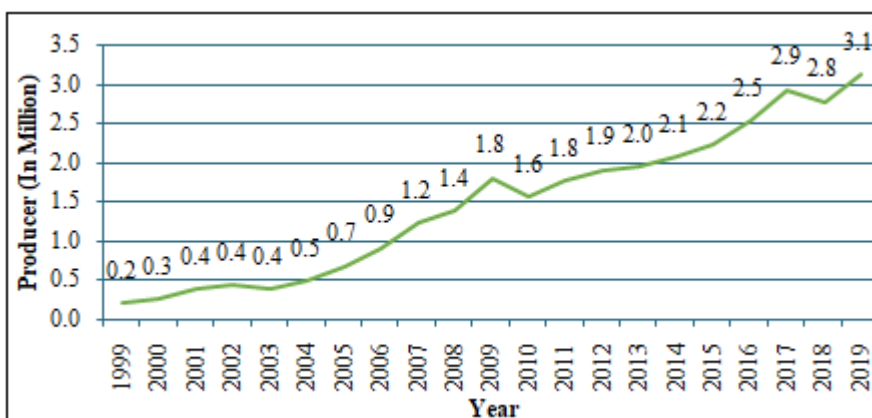


Figure 5: Growth of the Number of Organic Producers, 1999-2019

Figure 6 shows the regional distribution of organic farmers in 2019. According to the data, Asia accounted for 51 per cent of all organic growers worldwide, followed by Africa (27%) and Europe (14%).

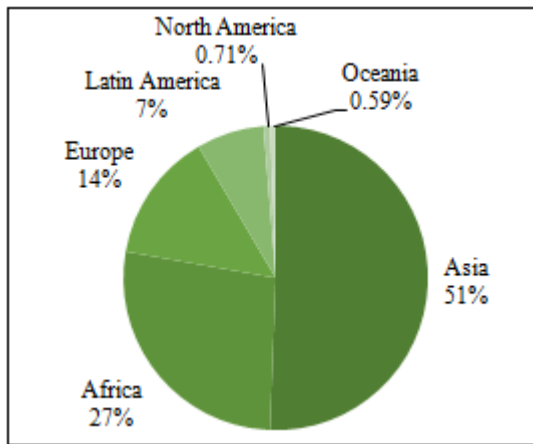


Figure 6: Region wise distribution of organic product producers, 2019

Source: FiBL survey 2021

According to Figure 7, the three nations with the highest numbers of organic producers were India (13.66 lakhs), Uganda (2.10, in 2016) and Ethiopia (20.4, in 2015). According to the data gathered, more than 91 per cent of the producers belonged to Asia, Africa and Europe. A total of 3.1 million organic producers were reported in the current survey conducted in 2021. India has the most producers, followed by Uganda (2.10 lakh) and Ethiopia (203'602). In comparison to 2018, there was a rise of almost 353,000 producers or 12.7 percent. Not all certified have been recorded in the number of producers, so the actual number may be more than 3.1 million (FiBL survey 2021).

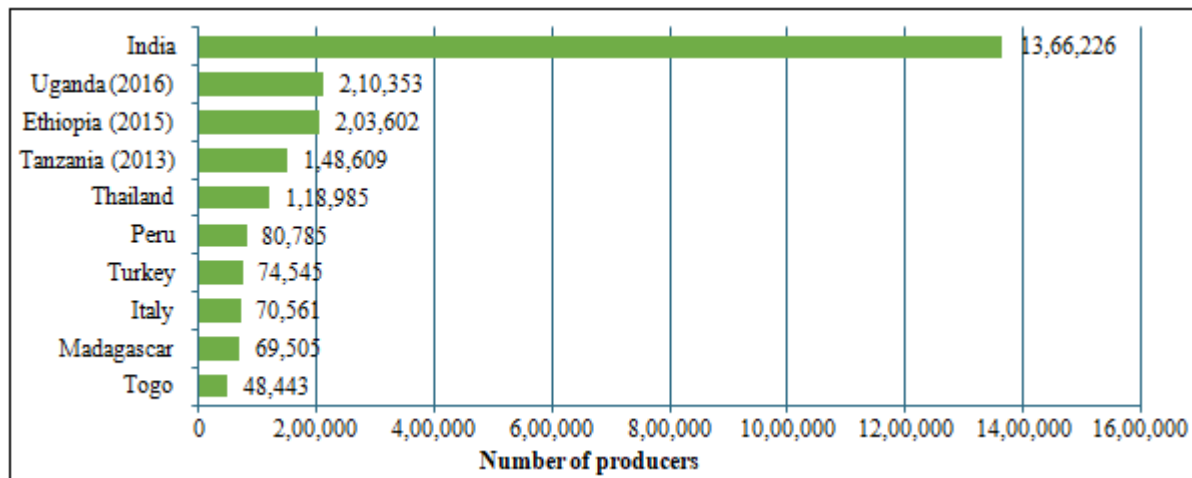


Figure 7: Top Ten Countries having Most Organic Producers, 2019

Source: FiBL survey 2021

4. Conclusion

The study examined that in 2019, only 1.50 per cent of all agricultural land in the globe was used for organic farming. In the same year, Oceania region with the highest percentage (9.6%) of agricultural land had allocated under organic farming. The area used for organic farming has increased by more than three times in absolute terms over the past two decades. The largest increase in organic farmland was recorded in India followed by the USA, France, Bolivia, Ukraine, Mexico, Spain, Kazakhstan, Brazil and Hungary. According to analysis, Liechtenstein, Austria, Sao Tome and Principe, Estonia, Sweden, Switzerland, the Czech Republic, Uruguay, Italy, and Latvia had the largest proportion of organic agricultural land. Over the past ten years, there has been a considerable increase in the number of organic farmers. India had the greatest number of organic farmers (13.66 lakhs) in the world in 2019. Besides, cereals accounted for the highest share of the world's total organic land that has been set aside for arable farming.

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Author Profile



Pragati Sharma has done Masters Degree in Agricultural Economics from Eternal University, Baru Sahib H.P. She has completed her bachelor's in Agricultural Sciences from Punjab Technical University, Kapurthala. Presently she is pursuing bachelor's in Education from Maharshi Dayanand University, Rohtak.



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He has participated in 38 national and international conferences/seminars. There are 132 research papers cum book chapters to his credit in various journals & books of repute. He has also bought 10 popular articles published in journals/magazines meant for farmers & entrepreneurs.