

Research Institute of Organic Agriculture FiBL

IFOAM – Organics International

The World of Organic Agriculture Statistics and Emerging Trends 2019

Edited by Helga Willer and Julia Lernoud

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Glossary

€/person: Per capita consumption in euros

AMI: Agrarmarkt-Informationsgesellschaft - Agricultural Market Information Company, Germany

CAP: Common Agricultural Policy of the European Union

CIHEAM: Centre international de hautes études agronomiques méditerranéennes

CNCA: China National Certification and Accreditation Administration

COTA: Canada Organic Trade Association, Canada

CPC: Candidates and Potential Candidates for the European Union

EFTA: European Free Trade Association

EOA: Ecological Organic Agriculture; Ecological Organic Agriculture Initiative for Africa

EU: European Union

EU-28: Member countries of the European Union

EU-Med: European Mediterranean Countries

Eurostat: Statistical office of the European Union, Luxembourg

FAO: Food and Agriculture Organisation of the United Nations

FAOSTAT: Statistics Division of FAO, the Food and Agriculture Organisation of the United Nations

FiBL: Forschungsinstitut für biologischen Landbau – Research Institute of Organic Agriculture, Switzerland

FYROM: The Former Yugoslav Republic of Macedonia

GMO: Genetically Modified Organisms

GOTS: Global Organic Textile Standard

Ha: Hectares

Horizon 2020: Research and Innovation programme of the European Union, running from 2014 to 2020

HS codes: Harmonized System Codes

IAMB: L'Istituto Agronomico Mediterraneo di Bari – Mediterranean Agronomic Institute Bari, Italy

IFAD: International Fund for Agricultural Development

IFOAM EU Group: European Union Group of IFOAM – Organics International

IISD: International Institute of Sustainable Development, Canada

ISOFA: International Society of Organic Agriculture Research, Germany

ITC: International Trade Centre, Switzerland

Mio.: Million

MOAN: Mediterranean Organic Agriculture Network, Italy

MT: Metric tons

NASAA: National Association for Sustainable Agriculture, Australia

NASS: USDA's National Agricultural Statistics Services, United States of America

OCS: Organic Content Standard

OrganicDataNetwork: Data network for better European organic market information

OTA: Organic Trade Association, United States of America

PGS: Participatory Guarantee Systems

POETcom: Pacific Organic and Ethical Trade Community

SECO: State Secretariat for Economic Affairs, Switzerland

SEM: Southern and Eastern Mediterranean countries

SÖL: Stiftung Ökologie & Landbau – Foundation Ecology & Agriculture, Germany

SSI: State of Sustainability Initiatives, Canada

SOAAN: Sustainable Organic Agriculture Action Network

TIPI: Technology Innovation Platform of IFOAM – Organics International

TP Organics: European Technology Platform for Organic Food and Farming

U.S.: United States

USDA: United States Department of Agriculture

VSS: Voluntary Sustainability Standards

Foreword from SECO and ITC

Once again, organic products found their way into consumers' shopping baskets. Organic products with a total value of 97 billion US dollars were sold globally in 2017. Double-digit rates were recorded in many advanced markets for organic products. The production side is also keeping pace: The latest data shows that organic farmland has grown in many countries, and the total organic area increased to almost 70 million hectares, managed by almost 2.9 million producers. In particular, for some crops such as dry pulses, vegetables, olives, area growth rates of over 15 percent were reached in 2017.

Organic agriculture is a way of farming sustainably and has proven to be a means to achieve the Sustainable Development Goals (SDGs), especially SDG 2 (Zero Hunger) and 12 (Responsible Consumption and Production). Global data on organic production and markets are therefore of high relevance for policy makers and contribute to understanding the importance of organic farming in the different countries. A favourable policy environment, reliable regulations and standards, as well as transparency remain key factors for future success, and this publication contributes to that end.

By providing dynamic and easy access to organic market and production data, the Swiss State Secretariat for Economic Affairs (SECO) and International Trade Centre (ITC) aim to support decision-makers in governmental administrations, development agencies, NGOs, and other actors of the international organic industry.

Considering the latest figures and the continuous and sustainable growth over many years, the organic movement can look confidently to the future.

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Foreword from FiBL and IFOAM – Organics International

With this 20th edition, FiBL and IFOAM – Organics International proudly present an anniversary edition of “The World of Organic Agriculture.” We not only celebrate major landmarks from the past but also reveal the new figures.

Data collection as such is a major and constant concern of the Research Institute of Organic Agriculture (FiBL) and IFOAM – Organics International. The comprehensive data provided over the past two decades in this publication serve as an important tool for stakeholders, policymakers, authorities, and the industry, as well as for researchers and extension professionals. It has also proven useful for development programs and supporting strategies for organic agriculture and markets, and crucial for monitoring the impact of these activities. The publication also shows our ongoing engagement with transparency in the organic sector; the method of collecting the data has been refined over time to reflect the global status of organic as much as possible. “The World of Organic Agriculture” has become one of the most frequently quoted pieces of literature in scientific, technical, and descriptive papers and reports on organic agriculture.

This publication also demonstrates the contribution of organic agriculture to the Sustainable Development Goals set by the United Nations. Given that organic agriculture touches on almost all of the goals, this book not only shows the land area, number of producers, and market figures; it also highlights the contribution of organic agriculture to tackling climate change, ensuring food and nutrition security, halting biodiversity loss, and promoting sustainable consumption, to name a few. Overall, “The World of Organic Agriculture” shows the potential organic farming has to contribute to a sustainable future!

We are grateful to the Swiss State Secretariat for Economic Affairs (SECO), the International Trade Centre (ITC), the Coop Sustainability Fund, and NürnbergMesse for supporting this publication. We would like to express our thanks to all authors and data providers for contributing in-depth information and figures on their region, their country, or their field of expertise.

Lastly, we would like to wholeheartedly thank Helga Willer and Julia Lernoud for their tremendous dedication and engagement, which has made it possible for all of us to witness the development of organic agriculture based on reliable figures. Of course, we would also like to express our thanks to the other members of the FiBL team, who support the activities surrounding the data collection.

We are proud of 20 years of “The World of Organic Agriculture” publications!

Frick and Bonn, February 2019

Prof. Dr. Urs Niggli
Director
Research Institute of Organic Agriculture FiBL
Frick, Switzerland

Louise Lutikholt
Executive Director
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Foreword from the Editors

In the 20th edition of “The World of Organic Agriculture” we present the latest available data on organic agriculture. This edition marks a milestone in the history of the data collection on organic agriculture worldwide. To celebrate this anniversary, we asked all authors to compile a milestone list for their region or theme of expertise, and we have also created a list showing the history of our data collection. We hope that with this edition we have contributed to improving the insight into the history of organic agriculture.

In the course of the past twenty years, many people have provided valuable information and data, and some of them have even supported us right from the beginning. We are very grateful to all of our authors and data and information suppliers from all over the world!

Furthermore, we would like to take the opportunity to thank those who provided know-how, tools, and technical and financial support. In particular, we would like to mention:

- Hubert Rottner and Hagen Sunder, the initiators and organizers of the first Biofach fairs, who asked the Foundation Ecology & Agriculture (SÖL) in 1999, if they could provide annual data on organic agriculture worldwide for Biofach, which was the birth of what is now an annual update on the state of organic agriculture worldwide.
- Minou Yussefi-Menzler of SÖL, who carried out the first global surveys on organic agriculture and acted as a co-editor of the yearbook until 2008.
- Immo Lünzer, former SÖL director, and SÖL director Dr. Uli Zerger, who strongly supported the set-up of the data collection activities.
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- FiBL director Prof. Dr. Urs Niggli, who has always encouraged us to develop the data collection further and ensured continual funding for the activities.
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Foreword from the Editors

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- The team of our partner, IFOAM – Organics International, which has supported us for all these years, and all IFOAM networks and members, who help us reach every corner of the globe.
- And many, many others without whom we would not be where we are today.

For this edition, knowledgeable authors contributed articles on their regions, their countries, or their fields of expertise. As in the past, we have the global market report from Ecovia Intelligence, reports on public standards and legislation, Participatory Guarantee Systems, policy support as well as regional reports and country reports on Australia, Canada, and the United States.

We are very proud that the Chinese edition of “The World of Organic Agriculture” will be published for the 8th time by the Organic and Beyond company. We would also like to announce that a Persian version of the World of Organic Agriculture will be available soon, translated by the Shiraz Chamber of Commerce, Industries, Mines and Agriculture.

We would like to express our warm gratitude to everyone who makes this report possible!

Helga Willer and Julia Lernoud

Research Institute of Organic Agriculture FiBL, Frick, Switzerland

Milestones of “The World of Organic Agriculture”

Year	Milestone
1999	The organizers of the Biofach organic trade fair ask the German Foundation Ecology & Agriculture (SÖL) to compile basic data on organic agriculture worldwide. 11 million hectares of organic farmland; 0.2 million producers, 15.2 billion US dollars of retail sales.
2000	The first edition of the yearbook with global organic farming statistics (“Organic Agriculture World-wide”) is published by SÖL in collaboration with Biofach and IFOAM – Organics International and presented at the Biofach Fair, then in Frankfurt, Germany. Since then, the data have been published annually and are presented at Biofach every year.
2001	The Research Institute of Organic Agriculture FiBL joins as a partner.
2006	For the first time, land use and crop data on organic agriculture are collected.
2007	The World of Organic Agriculture, 2007 edition, is translated into Chinese.
2008	Funding by the Swiss State Secretariat of Economic Affairs (SECO) and the International Trade Centre (ITC) enables FiBL to set up a professional database to improve data collection, processing, storage, and analysis. FiBL sets up the Organic-World.net website. 34.5 million hectares of organic farmland, 1.4 million producers, 50.2 billion US dollars in retail sales (data published in 2010).
2011	The Food and Agriculture Organisation of the United Nation (FAO) includes the FiBL data into its FAOSTAT online database.
2012	The OrganicDataNetwork project starts, funded under the 7th Framework Programme for Research and Technological Development of the European Union. Under this project, the data collection and processing methods are improved and an interactive online database is set up. Organic and Beyond (China) translates and publishes an excerpt of “The World of Organic Agriculture” (annually since that year).
2013	The “The World of Organic Agriculture” is translated into Korean (also the 2014 edition).
2014	The follow-up project of the SECO-ITC-funded project “Global Information System for Organic Market and Production Data” includes data collection on Voluntary Sustainability Standards.
2015	The first edition of “The State of Sustainable Markets” with data on 14 Voluntary Sustainability Standards is published by FiBL, ITC and the International Institute of Sustainable Development (IISD).
2017	69.8 million hectares of organic farmland, 2.9 million producers, 97 billion US dollars in retail sales (data published in 2019).
2018	FiBL launches a dedicated website for the interactive online database – Statistics.FiBL.org.
2019	20th edition of “The World of Organic Agriculture” is launched at Biofach. Funding by the Sustainability Fund of Coop Switzerland (Coop Fonds für Nachhaltigkeit). The 2018 edition of “The World of Organic Agriculture” is translated into Persian.

Compiled by Helga Willer, Research Institute of Organic Agriculture FiBL

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Organic Agriculture: Key Indicators and Top Countries

Indicator	World	Top countries
Countries with organic activities¹	2017: 181 countries	
Organic agricultural land	2017: 69.8 million hectares (1999: 11 million hectares)	Australia (35.6 million hectares) Argentina (3.4 million hectares) China (3.0 million hectares)
Organic share of total agricultural land	2017: 1.4 %	Liechtenstein (37.9 %) Samoa (37.6 %) Austria (24.0 %)
Wild collection and further non-agricultural areas	2017: 42.4 million hectares (1999: 4.1 million hectares)	Finland (11.6 million hectares) Zambia (6.0 million hectares) Tanzania (2.4 million hectares)
Producers	2017: 2.9 million producers (1999: 200'000 producers)	India (835'000) Uganda (210'352) Mexico (210'000)
Organic market	2017: 97 billion US dollars* ² (approx. 90 billion euros) (2000: 17.9 billion US dollars)	US (45.2 billion US dollars; 40 billion euros) Germany (11.3 billion US dollars; 10 billion euros) France (8.9 billion US dollars; 7.9 billion euros)
Per capita consumption	2017: 12.8 US dollars (10.8 euros)	Switzerland (325 US dollars; 288 euros) Denmark (315 US dollars; 278 euros) Sweden (268 US dollars; 237 euros)
Number of countries with organic regulations	2017: 93 countries	
Number of affiliates of IFOAM – Organics International	2018: 726 affiliates from 110 countries	Germany - 76 affiliates India - 47 affiliates China - 45 affiliates United States - 43 affiliates

Source: FiBL survey 2019, based on national data sources and data from certifiers

*Global market: Ecovia Intelligence (formerly Organic Monitor) 2019

¹ Where the designation "country" appears in this book, it covers countries and territories, see UNSTAT website <http://unstats.un.org/unsd/methods/m49/m49regin.htm>.

² According to the Central European Bank, 1 euro corresponded to 1.1297 US dollars in 2017.

The World of Organic Agriculture 2019: Summary

HELGA WILLER,¹ JULIA LERNOUD,² AND LAURA KEMPER³

The year 2017 was another record year for global organic agriculture. According to the latest FiBL survey on organic agriculture worldwide, the organic farmland, the number of organic producers and organic retail sales continued to grow and reached another all-time high, as shown by the data from 181 countries (data as of the end 2017).

More than 69.8 million hectares of organic farmland – Australia has the largest area

In 2017, 69.8 million hectares of organic agricultural land, including in-conversion areas, were recorded. The regions with the largest areas of organic agricultural land are Oceania (35.9 million hectares, which is half the world's organic agricultural land) and Europe (14.6 million hectares, 21 percent). Latin America has 8 million hectares (11 percent) followed by Asia (6.1 million hectares, 9 percent), North America (3.2 million hectares, 5 percent), and Africa (2.1 million hectares, 3 percent). The countries with the most organic agricultural land are Australia (35.6 million hectares), Argentina (3.4 million hectares), and China (3 million hectares). Almost a quarter of the world's organic agricultural land (16.8 million hectares) and more than 87 percent (2.4 million) of the producers were in developing countries and emerging markets (see page 74). See page 36 for the detailed results of the FiBL survey.

Globally, 1.4 percent of the farmland is organic – Liechtenstein has the highest organic share with 37.9 percent

Currently, 1.4 percent of the world's agricultural land is organic. The highest organic shares of the total agricultural land, by region, are in Oceania (8.5 percent) and Europe (2.9 percent; European Union 7.2 percent). However, some countries reach far higher shares: Liechtenstein (37.9 percent) and Samoa (37.6 percent) have the highest organic shares. In fourteen countries, 10 percent or more of the agricultural land is organic.

Record growth in organic farmland - Increase of 11.7 million hectares or 20 percent

Organic farmland increased by 11.7 million hectares or 20 percent in 2017, the largest increase ever recorded. The strong increase is mainly because 8.5 million additional hectares were reported from Australia. However, many other countries reported an important increase and thus contributed to the global growth, such as China (32 percent increase; over 0.7 million additional hectares), Argentina (12 percent increase; more than 0.4 million additional hectares), and the Russian Federation and

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India, both with an additional 0.3 million hectares. There was an increase in organic agricultural land in all regions. In Europe, the area grew by almost 1 million hectares (7.6 percent increase). In Asia, the area grew by almost 30 percent or an additional 1.2 million hectares; in Africa, the area grew by 14 percent or over 0.2 million hectares; in Latin America the area grew by 7 percent or 0.5 million hectares; and in North America by more than 3 percent or almost 0.1 million additional hectares.

Apart from the organic agricultural land, there is organic land dedicated to other activities, most of which are areas for wild collection and beekeeping. Other areas include aquaculture, forests, and grazing areas on non-agricultural land. These areas of non-agricultural land constitute more than 42.4 million hectares (see page 55).

Organic producers on the rise – 2.9 million producers in 2017

There were at least 2.9 million organic producers in 2017.¹ 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 (835'000), Uganda (210'352), and Mexico (210'000) (see page 62). There has been an increase in the number of producers of over 100'000, or nearly 5 percent, compared to 2016.

Growth in all major crop groups

Land use and crop details were available for over 90 percent of the organic agricultural land. Unfortunately, some countries with very large organic areas, such as Brazil and India, had little or no information on their land use (see page 80). **Over two-thirds of the agricultural land was grassland/grazing areas** (almost 48.2 million hectares), which increased more than any other land use type in 2017 (27 percent). With a total of over 12 million hectares, **arable land constitutes 17 percent of the organic agricultural land**. An increase of almost 11.3 percent since 2016 was reported. Most of this category of land was used for cereals including rice (4.5 million hectares), followed by green fodder from arable land (2.8 million hectares), oilseeds (1.2 million hectares), dry pulses and vegetables. **Permanent crops account for seven percent of the organic agricultural land**, amounting to nearly 4.9 million hectares. Compared to the previous survey, an increase of more than 300'000 hectares, or 6.7 percent, was reported. The most important crops are coffee, with nearly 0.9 million hectares and olives (almost 0.9 million hectares), each constituting almost 20 percent of the organic permanent cropland, followed by nuts (0.6 million hectares), grapes (0.4 million hectares), and tropical and subtropical fruits (almost 0.4 million hectares) (see page 76).

¹ Please note that some countries report only the numbers of companies, projects, or grower groups, which may each comprise a number of individual producers. The number of producers should, therefore, be treated with caution, and it may be assumed that the total number of organic producers is higher than that reported here.

Detailed information on **organic cotton** was provided by Textile Exchange, showing that during the 2016/17 growing season, 117'525 metric tons of organic cotton fibre was produced globally by 220'478 farmers on 472'999 hectares of land. There are currently 18 countries producing certified organic cotton, but 96 percent of the global supply comes from just seven countries. India remains by far the largest producer, accounting for over half of total production, followed by China, Kyrgyzstan, Turkey, and Tajikistan. For more information, including the situation of cotton production in individual countries and regions, see the chapter by Truscott et al. on page 138.

Looking at **Voluntary Sustainability Standards (VSS)**, a recent survey of 14 standards (including organic) shows that, in 2016, growth continued and that at least 15 million hectares are covered by selected crops and standards. All of the standards covered experienced growth in their areas since 2011. The most successful commodity is coffee: at least 25.8 percent of the global coffee area is certified at least under one of the standards covered (See the chapter by Lernoud et al., page 76).

Global market has reached 97 billion US dollars

Organic food and drink sales reached 97 billion US dollars¹ in 2017 according to Ecovia Intelligence. Although organic food sales are growing at a healthy rate, there are still persistent challenges. These include rising number of standards, demand concentration (about 90 percent of sales are in North America and Europe), supply shortfalls, and competing eco-labels, to name a few. For more information, see the chapter by Sahota on page 146).

In 2017, the countries with the largest organic markets were the United States (40 billion euros), Germany (10 billion euros), and France (7.9 billion euros). **The largest single market was the United States** (47 percent of the global market), followed by the European Union (34.3 billion euros, 37 percent), and China (7.6 billion euros, 8 percent). The highest per-capita consumption in 2017, with almost 300 euros, was found in Switzerland and Denmark. The highest organic market shares were reached in Denmark (13.3 percent), the first country with an organic market share of over ten percent, Sweden (9.1 percent), and Switzerland (9 percent) (See the chapter on the FiBL survey on the global market, page 70).

Africa

There were almost **2.1 million hectares of certified organic agricultural land in Africa** in 2017. Compared to 2016, Africa reported an increase of almost 255'000 hectares, a 14 percent increase. There were at least 815'000 producers. Tunisia was the country with the largest organic area (with almost 306'500 hectares), and Uganda had the largest number of organic producers (more than 210'000). The country with the

¹ According to the Central European Bank, 1 euro corresponded to 1.1297 US dollars in 2017.

highest organic share of the total agricultural land in the region was the island state Sao Tome and Principe, with 18 percent of its agricultural area being. The majority of certified organic products in Africa are destined for export markets. Key crops are coffee, olives, nuts, cocoa, oilseeds, and cotton (see page 179). Two countries in Africa have legislation on organic agriculture, and seven countries are in the process of drafting legislation. Nine countries have a national standard but no organic legislation.

The year 2018 continued to see the growing recognition among policymakers, which became evident at the 4th African Organic Conference, which was held in Dakar, Senegal, in November 2018. The 160 participants, which included farmers, scientists, policymakers and organic business entrepreneurs from more than 30 countries, agreed that Ecological Organic Agriculture (EOA) plays a significant role in fulfilling the African Union's Agenda 2063 and the Sustainable Development Goals (SDGs). In the Saly declaration, the participants recommended that all member states should increase efforts to generate and disseminate information to advance ecological organic agriculture and provide solutions that can facilitate engagement of financial institutions in improving access to financing organic agriculture businesses.

Asia

The total area dedicated to **organic agriculture in Asia was almost 6.1 million hectares in 2017**. There were 1.1 million producers, most of which were in India. The leading countries by area were China (3 million hectares) and India (almost 1.8 million hectares); Timor-Leste had the highest proportion of organic agricultural land (8.7 percent) (page 199). Twenty-two countries in the region have legislation on organic agriculture, and six countries are in the process of drafting legislation. Nine countries have a national standard but no organic legislation.

Historically, the most important consumer markets were in Japan and South Korea. However, most developments are now occurring in China, which had the largest market in the region in 2017 (7.6 million euros), and in India. In Asia, a transition is taking place whereby countries are moving from an export to domestic focus. At the country level, were that national organic standards were approved in countries like Bangladesh and Vietnam, while Cambodia issued a roadmap to promote organic agriculture. National organic standards were revised in China, the Philippines, and South Korea. A framework was implemented to enable policies such as direct payment programs in South Korea. The Philippines prioritized the Participatory Guarantee Systems (PGS) in the amendment of the RA10068 - the "Organic Agriculture Act of 2010", and PGS remained strong in Indonesia. In Thailand, the government launched a large-scale project, which relies on support programs to convert more than 100'000 hectares to organic rice production within three years.

The first Biofach Southeast Asia, which was sponsored by the Thai Ministry of Commerce, was successfully launched, and the third Organic Asia Congress was held

in Bislig City, Philippines with more than 1'300 participants from 24 countries from Asia and other parts of the world. In 2018, the two biggest IFOAM Asia projects – the Asian Local Governments for Organic Agriculture (ALGOA) project and the Organic Youth Forum – showed the most progress. The members of ALGOA, the “Asian Local Governments for Organic Agriculture,” tripled in number and reached 204 members. Interest in the Organic Youth Forum is increasing, and a contract with New Taipei City has been signed for the next Forum, which will be held from March 26th to 31st, 2019. For more information, see the chapter by IFOAM Asia on page 188).

Mediterranean

In 2017, the total certified organic area in the Mediterranean region covered over 9 million hectares, of which 7.5 million hectares are organic agricultural area. Organic agriculture started in the mid-1980s in some southern and eastern Mediterranean countries, mainly driven by European investors, who saw opportunities in the sector. The development of organic agriculture remained slow and limited in the Mediterranean until the beginning of the 21st century, when the first aggregated data and information on the organic sector were published, possible thanks to the establishment of the Mediterranean Organic Agriculture Network (MOAN) in 1999, which carries out annual surveys and disseminates statistics at the regional and international level. Since then, a consistent evolution in terms of quality, availability, and reliability of information and statistics has taken place. For more information see chapter by Bteich et al. on page 256.

Europe

As of the end of 2017, **14.6 million hectares of agricultural land in Europe** (European Union 12.8 million hectares) were managed organically by over 397'000 producers (European Union: over 305'000). In Europe, 2.9 percent of the agricultural area was organic (European Union: 7.2 percent). Organic farmland has increased by over 1 million hectares compared to 2016. The countries with the largest organic agricultural areas were Spain (2.1 million hectares), Italy (1.9 million hectares), and France (1.7 million hectares). In ten countries, at least 10 percent of the farmland is organic: Liechtenstein has the lead (37.9 percent), followed by Austria (24 percent) and Estonia (20.5 percent). Retail sales of organic products totalled 37.3 billion euros in 2017 (European Union: 34.3 billion euros), an increase of 10.5 percent since 2016. The largest market for organic products in 2017 was Germany, with retail sales of 10 billion euros, followed by France (7.9 billion euros), and Italy (3.1 billion euros) (see the article by Willer et al., page 217). Forty-two countries in Europe have legislation on organic agriculture, and one country is in the process of drafting legislation. Both Russia and Ukraine approved their organic laws in 2018.

A major milestone in 2018 was the publication of the new European Union (EU) rules on organic production and labelling of organic products in May. The European

organic food and farming movement calls on both EU institutions and stakeholders to work together in the next two years on the development of the implementing and delegated acts. In June 2018, the European Commission launched its proposal for the Common Agricultural Policy (CAP) for the period 2021 to 2027. The European organic sector welcomes the proposal and calls for a significant minimum share of the budget to be dedicated to environmental protection and climate action. On the research side, several major projects were launched such as the Organic-Farmknowledge.org platform, which facilitates the dialogue between practice and research at the European level.

Latin America and the Caribbean

In Latin America, **almost 460'000 producers managed over 8 million hectares of agricultural land organically in 2017**. This constituted 11 percent of the world's organic land and 1.1 percent of the region's agricultural land. The leading countries were Argentina (3.4 million hectares), Uruguay (1.9 million hectares), and Brazil (1.1 million hectares). The highest shares of organic agricultural land were in Uruguay (13 percent), French Guiana (10 percent), and the Dominican Republic (8.7 percent). Many Latin American countries remain important exporters of organic products such as coffee, cocoa, and bananas. In Argentina and Uruguay, temperate fruit and meat are key export commodities. Twenty countries in the region have legislation on organic agriculture, and two countries are in the process of drafting legislation.

Organic markets in the region show a positive trend with a high demand on international markets but also domestically; Brazil is the country with the largest organic market on the continent. Mexico, Brazil, Chile, Paraguay, Bolivia, and Argentina have a national seal to distinguish their organic produce on the local market. In many Latin America and the Caribbean countries, the domestic organic market combines a strong social component with business opportunities bringing benefits to thousands of smallholders and the private sector, and Participatory Guarantee Systems play an important role. In 2018, an equivalence agreement for organic production between Chile and the EU was implemented. For more information, see the chapter by Flores on page 262.

North America

In North America, **3.2 million hectares of farmland were managed organically in 2017**. Of these, 2 million were in the United States and 1.2 million in Canada, representing 0.8 percent of the total agricultural area in the region (see page 276).

The U.S. organic sector continues its upward trajectory, gaining new market share and shattering records, as consumers used more organic products than ever before.

Organic sales in the U.S. totalled approximately 49 billion US dollars¹ (45.2 billion US dollars in food sales) in 2017, reflecting new sales of almost 3.5 billion US dollars from the previous year. Organic food now accounts for 5.5 percent of total food sales in the U.S. The Agricultural Improvement Act of 2018 establishes permanent funding for organic research and makes significant strides to improve the oversight of global organic trade and safeguard the integrity of organic. The Organic Trade Association announced a plan to move forward with a voluntary industry-invested organic research, promotion and education check-off-like program. The project has issued a call for stakeholders to submit ideas to generate results and opportunity for organic by April 2019. For more information see article by Haumann on page 276.

The Canadian organic sector continues to record significant growth despite a decline in the number of total farms in the country. Canada's total organic market (including food and non-food items) has reached 5.4 billion Canadian dollars,² up from 3.5 billion Canadian dollars in 2012, with a compound annual growth rate of 8.7 percent. The Organic Science Cluster funding was renewed by the Federal government, investing 8.3 million Canadian dollars into organic research in Canada being conducted by the Organic Agriculture Centre of Canada (OACC). This research investment includes an additional 4.4 million Canadian dollars in industry contributions. For more information, see the chapter by Loftsgard on page 282.

Oceania

This region includes Australia, New Zealand, and the Pacific Island states. Altogether, there were almost 27'000 producers, managing 35.9 million hectares. This constituted 8.5 percent of the agricultural land in the region and half of the world's organic land. **More than 99 percent of the organic land in the region is in Australia** (35.6 million hectares, most of which is extensive grazing land), followed by Samoa (more than 106'000 hectares), and New Zealand (almost 89'000 hectares). The highest organic shares of all agricultural land were in Samoa (37.6 percent), followed by Australia (8.8 percent), Vanuatu (8 percent), Tonga (4.8 percent), and Kiribati (4.7 percent). Five countries in Oceania have legislation on organic agriculture, and eleven countries have a national standard but no organic legislation.

Australia has seen even more growth in 2017 in the area of pastoral land under certified organic management, bringing the total certified organic area to more than 35 million hectares. As shown in the article by Wynen, more than 90 percent of the farmland is unimproved pasture (see page 302). The total value of the organic market in Australia for domestically produced goods is estimated to be 2.4 billion Australian dollars³ (retail sales and exports). A major recent achievement for the organic sector in

¹ According to the Central European Bank, 1 euro corresponded to 1.1297 US dollars in 2017.

² One Canadian Dollar corresponded to 0.683 Euros in 2017 according to the European Central Bank.

³ One Australian dollar corresponded to 0.679 euros in 2017 (average exchange rate according to the Central European bank.

Australia was the establishment of the Centre for Organics Research at Southern Cross University. For more information about Australia, see the report by Lawson et al. on page 294.

Regional and national agencies and development partners increasingly recognize the value of organic agriculture as a development tool for the Pacific Islands context. Innovations such as the Pacific Organic Tourism and Hospitality Standard and the online Pacific Organic Policy Toolkit are attracting interest from organic farmers through to policymakers. The number of organic farmers in the region is continuing to grow with PGS growing at a faster rate than third-party certification. It is expected that the local market for organic products will start to expand as the tourism and hospitality industries start to look towards organic and sustainability as part of the Pacific Islands' brand (see the chapter by Mapusua, page 307).

Standards, legislation, policy support

According to the FiBL survey on **standards and legislation**, 93 countries had organic standards in 2018, and 16 countries were in the process of drafting legislation. At least 29 countries in Africa, Asia, and Oceania, have adopted national or regional standards for organic agriculture. The European Union (EU) adopted the basic act of its new organic regulation, which will come into force in 2021. In 2019 and 2020, the secondary legislation – the delegated and implementing acts for production, controls, and trade – will be drafted and adopted. In Russia, the law on organic production was signed, which will come into force in 2020. In Ukraine, the Organic Law was adopted in August 2018, and it will come into force in August 2019. In Belarus, negotiations on the organic legislation have reached the final stage, and adoption is expected in the beginning of 2019. For more information, see the chapter by Huber et al. on page 152).

Although organic farming as a concept has existed for almost 100 years, it has only garnered significant attention from consumers, environmentalists, farmers and ultimately policy-makers worldwide since the mid-1980s. Initially set by private scheme owners, mainly organic farmers' organizations, in the 1980s, organic standards started to become part of a legislative process that brought the enforcement of national and regional organic regulations to help facilitate international trading. At the same time, an increasing number of governments began supporting organic agriculture beyond regulation, and there is a growing number of **government policies and programs that support organic agriculture development**, such as subsidy schemes, market development support, capacity building, and research investment. A recent trend is that municipalities and cities play an increasing role in supporting the development of the organic sector while legislating on broader objectives related to sustainable growth and development of urban areas. For more information, see the chapter by Varini and Katto-Andrighetto on page 167.

Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. PGS have proven to be an affordable alternative to third-party certification, an effective tool to develop local markets for organic produce and are particularly

appropriate for small-scale farmers. Based on the data collected through the Global PGS Survey 2017 conducted by IFOAM – Organics International, PGS initiatives are established in 66 countries, with at least 311'449 farmers involved in PGS initiatives worldwide. This includes mostly small farmers and small processors. It is estimated that there are currently at least 241 PGS initiatives, of which 127 are fully operational. For more information, see the chapter by Katto-Andrighetto et al. on page 161.

Outlook

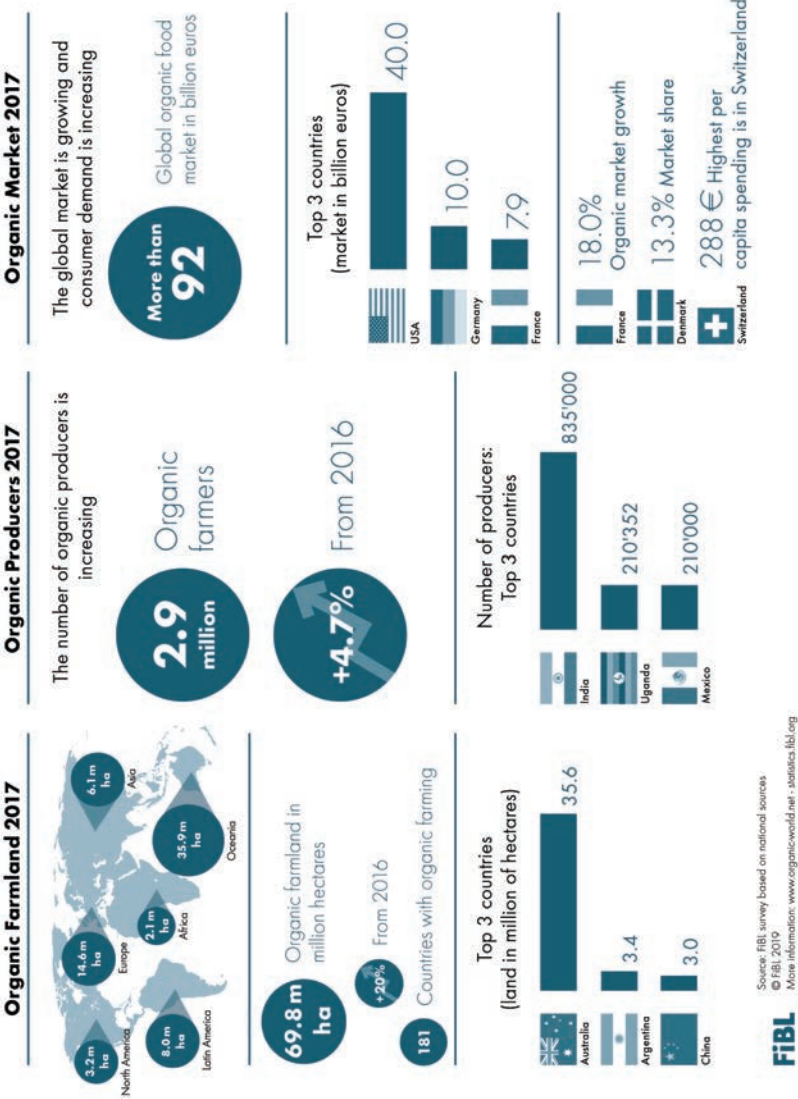
IFOAM - Organics International promotes sustainable food production systems through the uptake of organic agriculture, and the new **IFOAM strategy**, adopted in 2017, seeks to push organic and agriculture as a whole to the next level of sustainability, and thus serves many of the Sustainable Development Goals. Preparations are underway for the Organic World Congress 2020 with the title "From its roots, organic inspires life." It will bring the global organic sector back to France, where IFOAM – Organics International was founded in 1972. For more information, see the chapter by Luttkholt on page 320.

Next FiBL survey on organic agriculture worldwide

The next global organic survey will start in mid-2019; data will be published in February 2020 and presented at the Biofach Organic Trade Fair in Nuremberg, Germany. We will contact all relevant experts and would be very grateful if data could be sent to us. Should you notice any errors regarding the statistical data in this volume, please let us know; we will then correct the information in our database and provide the corrected data in the 2020 edition of "The World of Organic Agriculture." Corrections will also be posted at www.organic-world.net.

Contact: julia.lernoud@fibl.org and helga.willer@fibl.org

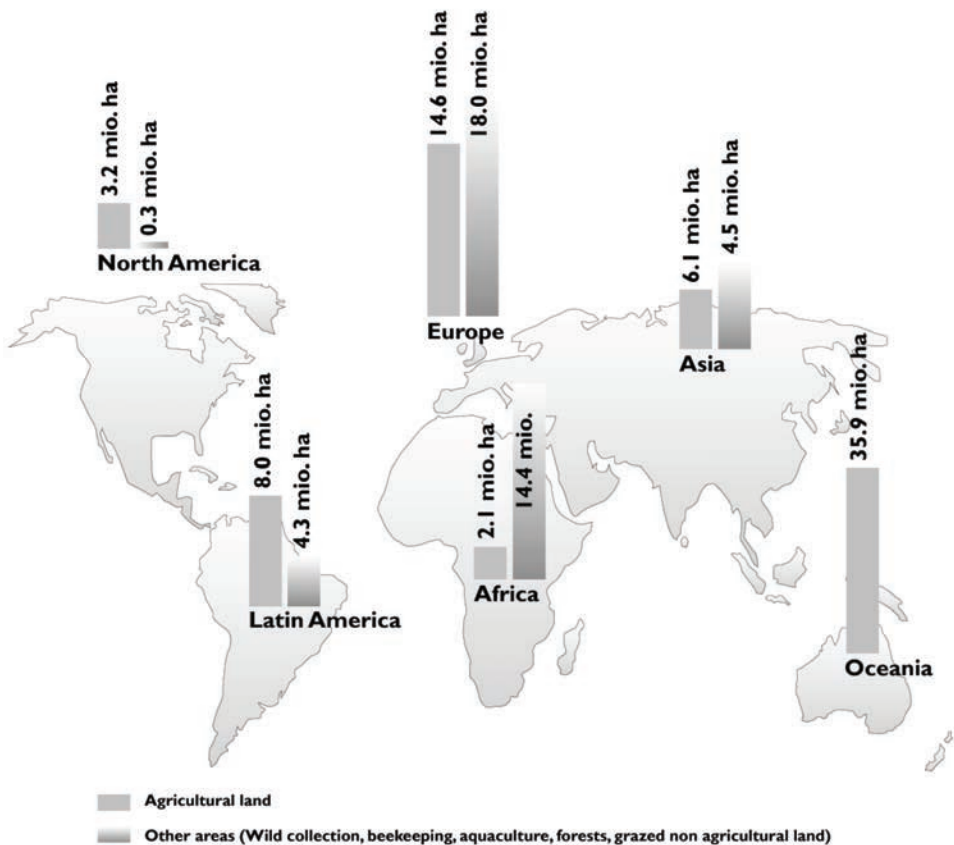
The World of Organic Agriculture 2017



Infographic 1: Organic agriculture worldwide: Key indicators 2017

Source: FiBL survey 2019

Organic Agriculture Worldwide: Current Statistics



Map 1: Organic agricultural land and non-agricultural areas in 2017 (in hectares)

Source: FiBL survey 2019

Current Statistics on Organic Agriculture Worldwide: Area, Operators, and Market

JULIA LERNOUD¹ AND HELGA WILLER²

Introduction

The 20th survey of certified organic agriculture worldwide was carried out by the Research Institute of Organic Agriculture (FiBL) with many partners from around the world. The results are published jointly with IFOAM – Organics International. This survey, was supported by the Swiss State Secretariat for Economic Affairs (SECO), the International Trade Centre (ITC),³ the Sustainability Fund of Coop Switzerland,⁴ and NürnbergMesse.⁵

In total, data was provided by more than 200 experts. Governments, private sector organizations, certifiers, and market research companies have contributed to the data collection effort. Several international certifiers deserve special mention as they provided data on a number of countries: BCS, CERES, Certisys, Control Union, Ecocert, ICEA, LACON, Quality Certification Services (QCS), and the Soil Association. Data from the Mediterranean countries was supplied by the Mediterranean Organic Agriculture Network (MOAN, c/o Mediterranean Agronomic Institute of Bari), and data from the Pacific Islands was provided by the Pacific Organic and Ethical Trade Community (POET.com). A list of all data sources and contacts is provided in the annex.

In total, data from 181 countries/territories was available. Gambia, Guinea, Mauritania, and Mayotte, are new to the list of countries with organic data. For Belarus, data had been available in the past, but for 2017, data has not been received. Updated data on the organic area was available for 146 countries; however, for some countries, updates were only available for the total organic area and not necessarily for the number of farms, land use, or other indicators. For those countries for which FiBL compiles the data among certifiers, not all certifiers provided updated data.

When no new data was available, data from the previous survey were used.

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² Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

³ Since 2014, data collection on organic agriculture worldwide has been funded by the International Trade Centre (ITC) and the Swiss State Secretariat for Economic Affairs (SECO) under the project “T4SD Global Platform for Market Data on Organic Agriculture and Sustainability Standards”. For more information on this project, see www.vss.fibl.org

⁴ Since 2019, the data collection on organic agriculture has been supported by the Sustainability Fund of Coop Switzerland.

⁵ The organisers of BIOFACH, the World Organic Trade Fair in Nuremberg, Germany (today: NürnbergMesse), have supported data collection on organic agriculture worldwide and the production of the yearbook “The World of Organic Agriculture” since 2000.

Table 1: Countries and territories covered by the global survey on organic agriculture 2017

Region	Countries* with data on organic agriculture	Countries per region ¹	Share of countries that provided data (%)
Africa	44	56	79%
Asia	41	49	84%
Europe	47	49	96%
Latin America and Caribbean	33	46	72%
North America	3	5	60%
Oceania	13	25	52%
World	181	230	79%

Source: FiBL survey 2019

*Where the designation "country" appears in this book, it covers countries or territories.²

Data on the following indicators was collected:

- Organic area in hectares, by country and country groups, including breakdown by crop;
- Livestock numbers;
- Production data (volumes and values);
- Producers and further operator types;
- Domestic market data (total retail sales value and volumes, per capita consumption, share of the total market, and breakdown by product);
- International trade data (total import and export values and volumes, and breakdown by product).

Not all data that was collected is published in this book (e.g., production, livestock numbers, breakdown by product for domestic market and international trade data) because it was not possible to draw a complete global picture for these indicators. More information about the data collection and analysis process is available in our metadata, which can be found on page 346.

More information on statistics.fibl.org

Tables with more details on crops, markets, and international trade, as well as explanations for certain data can be found on FiBL's statistics website statistics.fibl.org.

Contact: Enquiries related to the data should be sent to Julia Lernoud and Helga Willer, Research Institute of Organic Agriculture FiBL, Frick, Switzerland, e-mail julia.lernoud@fibl.org and helga.willer@fibl.org.

¹ Number of countries and areas are mostly based on countries as listed in the FAO database at <http://www.fao.org/faostat/en/#data/RL> as well as some additional countries such as Kosovo.

² For more information on countries, territories and regions see the UNSTAT website at <http://unstats.un.org/unsd/methods/m49/m49.htm>.

General notes on the data

Organic areas: Data represents **certified organic land/areas that are already fully converted as well as land under conversion** because many data sources do not separate or include the latter (for instance, Austria, Germany, and Switzerland) and also because land under conversion is under organic management. For a definition of organic agriculture, see the IFOAM – Organics International website.¹

Data on conversion status: For some countries, data is collated from several certifiers, some of which provided information on the conversion status while others did not. Therefore, the sum of land under conversion and the fully converted land is not necessarily the same as the total land under organic agricultural management.

Share of total agricultural land: In some cases, the calculation of the organic share of the total agricultural land or that of individual crops, based on FAOSTAT and in some cases the Eurostat data, might differ from the organic shares obtained from ministries or local experts.

PGS: Since 2011, for some countries, areas certified by Participatory Guarantee Systems (PGS) have been included. (For more information about PGS, see the article by Katto et. al. on page 161).

Countries: For countries and territories, the FAO country list is used. Where the designation "country" appears in this report, it covers countries or territories. As to the countries' grouping by region, the Standard Country and Area Classifications as defined by the United Nations Statistics Division,² is used in most cases.

Data sources: Data was gathered from organizations of the private sector, governments, and certification bodies. For detailed information on the data sources, please check the annex at the end of this volume (page 331).

Direct year-to-year comparison: A direct year-to-year comparison is not possible for all data as the data sources may change, data may not be provided on an annual base, data access may improve, or exchange rates might change.

Completeness of data:

> **Producers:** Some countries report the number of smallholders while others report only the number of companies, projects, or grower groups, which may each comprise a number of producers. This applies in particular to many African countries. The number of producers is, therefore, probably higher than the number communicated in this report.

> **Domestic market data:** It should be noted that for market and trade data, comparing country statistics remains very problematic due to differing methods of data collection.

Data revisions: Data revisions and corrections are communicated at www.organic-world.net/statistics.

Metadata: Metadata for the FiBL survey on organic agriculture worldwide are available on Organic Eprints at <http://orgprints.org/31359> and the end of this book.

¹ The definition of organic agriculture is available at the website of IFOAM – Organics International www.ifoam.bio/en/organic-landmarks/definition-organic-agriculture

² For the composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings, see the UNSTAT website at <http://unstats.un.org/unsd/methods/m49/m49regin.htm>

ORGANIC FARMLAND 2017

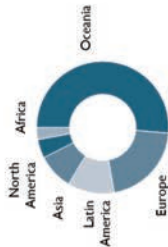


In Oceania there were 35.9 Mio ha, in Europe 14.6 Mio ha, and in Latin America 8 Mio ha.

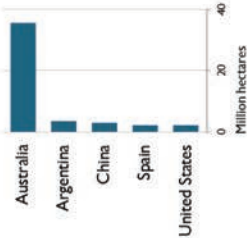
The ten countries with the largest organic agricultural areas represent 79% of the world's organic agricultural land.

14 countries have 10% or more of their agricultural land under organic management.

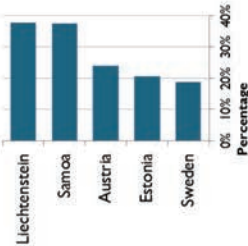
In 2017, over 11.7 million hectares more were reported compared with 2016.



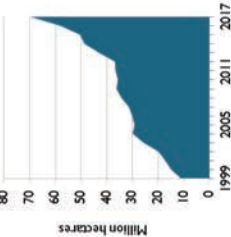
Distribution of organic agricultural land by region 2017



The five countries with the largest areas of organic agricultural land 2017



Top 5 countries with more than 10 percent of organic agricultural land 2017



Growth of the organic agricultural land 2000-2016

FIBL

Infographic 2: Organic farmland 2017

Source: FIBL survey 2019

Source: FIBL survey 2019 www.organic-world.net – statistics.fibl.org

Organic land

Organic agricultural land

In 2017, 69.8 million hectares were under organic agricultural management worldwide.¹

The region with the most organic agricultural land is Oceania, with 35.9 million hectares, followed by Europe with 14.6 million hectares, Latin America (8 million hectares), Asia (6.1 million hectares), North America (3.2 million hectares), and Africa (2.1 million hectares).

Oceania has half of the global organic agricultural land. Europe, a region that has had a very constant growth of organic land over the years, has over 20 percent of the world's organic agricultural land followed by Latin America with 11 percent (Table 2, Figure 1).

Australia, which continued to experience growth of its organic area in 2017 (+8.5 million hectares), is the country with the most organic agricultural land; it is estimated that 97 percent of the farmland are extensive grazing areas. Argentina is second followed by the United States in third place (Table 2, Figure 2). The 10 countries with the largest organic agricultural areas have a combined total of nearly 55 million hectares and constitute three-quarters of the world's organic agricultural land.

Apart from the organic agricultural land, there are further organic areas such as wild collection areas. These areas constitute more than 42.4 million hectares.

Table 2: World: Organic agricultural land (including in-conversion areas) and regions' shares of the global organic agricultural land 2017

Region	Organic agricultural land [hectares]	Regions' shares of the global organic agricultural land
Africa	2'056'571	3%
Asia	6'116'834	9%
Europe	14'558'246	21%
Latin America	8'000'888	11%
North America	3'223'057	5%
Oceania	35'894'365	51%
World	69'845'243	100%

Source: FiBL survey 2019. Note: Agricultural land includes in-conversion areas and excludes wild collection, aquaculture, forest, and non-agricultural grazing areas.

*Includes correction value for French overseas departments.

¹ Data provided both for the fully converted and in conversion area are included in this work. However, some countries provided only data on the fully converted area, others only on the total organic agricultural land, and thus the conversion area is not known for many countries.

Distribution of organic agricultural land by region 2017

Source: FiBL survey 2019

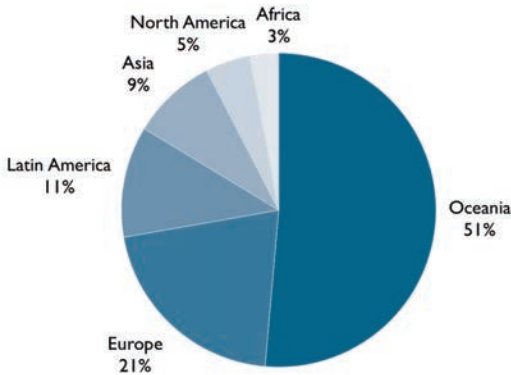


Figure 1: World: Distribution of organic agricultural land by region 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

The ten countries with the largest areas of organic agricultural land 2017

Source: FiBL survey 2019

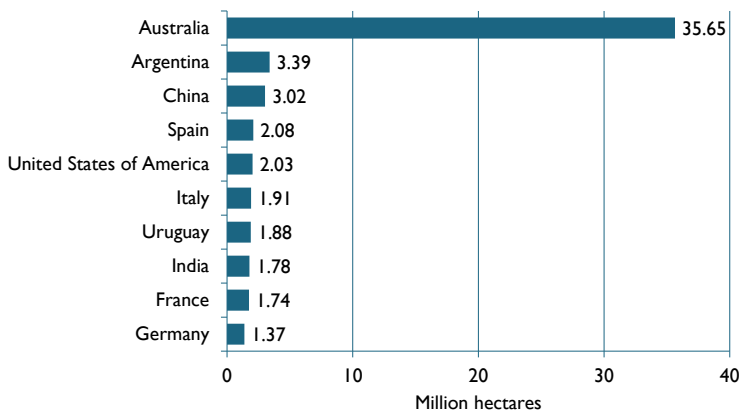


Figure 2: World: The ten countries with the largest areas of organic agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Table 3: World: Organic agricultural land (including in-conversion areas) by country 2017 (sorted)

For an alphabetical country list (including information on data year), see page 331.

Country	Hectares	Country	Hectares
Australia	35'645'038	Bolivia	114'306
Argentina	3'385'827	Samoa	106'406
China	3'023'000	Egypt	105'908
Spain	2'082'173	Sierra Leone	101'184
United States of America	2'031'318	Croatia	96'618
Italy	1'908'653	Thailand	91'266
Uruguay	1'882'178	New Zealand	88'871
India	1'780'000	Belgium	83'510
France	1'744'420	Ireland	74'336
Germany	1'373'157	Madagascar	63'954
Canada	1'191'739	Congo, D.R.	60'624
Brazil	1'136'857	Burkina Faso	58'891
Mexico	673'968	Viet Nam	58'018
Russian Federation	656'933	Netherlands	56'203
Austria	620'764	Nigeria	53'402
Sweden	576'845	Pakistan	51'304
Turkey	520'886	Côte d'Ivoire	50'446
Czech Republic	520'032	Norway	47'042
United Kingdom	497'742	Slovenia	46'222
Poland	494'979	Paraguay	43'711
Greece	410'140	Ecuador	41'793
Peru	315'525	South Africa	41'377
Tunisia	306'467	Togo	39'390
Ukraine	289'000	Azerbaijan	37'630
Tanzania, United Republic of	278'467	Nicaragua	33'621
Kazakhstan	277'145	Falkland Islands (Malvinas)	31'937
Latvia	268'870	Colombia	31'621
Uganda	262'282	Timor-Leste	31'278
Finland	259'451	Moldova	30'142
Romania	258'471	Namibia	30'001
Portugal	253'786	Honduras	29'274
Lithuania	234'134	Republic of Korea	20'700
Denmark	226'307	Iceland	20'177
Indonesia	208'042	Syrian Arab Republic	19'987
Dominican Republic	205'258	Chile	19'415
Philippines	200'065	Kyrgyzstan	19'327
Hungary	199'684	Benin	18'928
Estonia	196'441	Saudi Arabia	17'075
Slovakia	189'148	Fiji	16'604
Ethiopia	186'155	Ghana	15'323
Kenya	172'225	Panama	15'183
Sri Lanka	165'553	Vanuatu	14'881
Switzerland	151'404	Papua New Guinea	13'675
Bulgaria	136'629	Serbia	13'423
Sudan	130'000	Guatemala	13'380

Country	Hectares
Tajikistan	12'659
Mali	12'655
Mozambique	12'586
Malawi	12'232
Iran (Islamic Republic of)	11'916
Cambodia	11'042
Myanmar	10'248
Japan	9'956
Nepal	9'361
Morocco	9'175
Sao Tome and Principe	8'780
Costa Rica	8'736
Bangladesh	8'056
Zambia	7'997
Lao P.D.R.	7'668
Senegal	7'309
Bhutan	6'632
Taiwan	6'490
Cuba	6'186
Israel	5'758
Cyprus	5'616
Haiti	5'586
Luxembourg	5'444
Palestine, State of	5'298
United Arab Emirates	4'687
Solomon Islands	3'927
Zimbabwe	3'246
French Guiana (France)	3'061
Macedonia, FYROM	2'900
Montenegro	2'715
El Salvador	1'677
Kiribati	1'600
Tonga	1'588
French Polynesia	1'491
Georgia	1'452
Jordan	1'446
Comoros	1'445
Armenia	1'430
Liechtenstein	1'389
Lebanon	1'353
Rwanda	1'276
Bosnia and Herzegovina	1'273
Cameroon	1'089
Réunion (France)	1'051
Guinea-Bissau	835
Algeria	772
Malaysia	603
Albania	549
Cape Verde	495
Belize	380

Country	Hectares
Jamaica	374
Martinique (France)	364
Afghanistan	272
Niger	254
Faroe Islands	253
Dominica	240
Guadeloupe (France)	200
Swaziland	186
Channel Islands	180
Niue	165
Kosovo	160
New Caledonia	94
Grenada	85
Burundi	83
Iraq	60
Suriname	57
Bahamas	49
Malta	43
Mayotte	41
Oman	38
United States Virgin Islands	26
Cook Islands	25
Kuwait	20
Gambia	20
Puerto Rico	14
Mauritius	14
Guinea	10
Andorra	2
Bermuda (Processing)	
Brunei Darussalam (Aquaculture)	
Chad (Wild collection)	
Guyana (Wild collection)	
Hong Kong (Processing)	
Lesotho (Wild collection)	
Mauritania (Wild collection)	
Monaco (Processing)	
San Marino (Processing)	
Singapore (Processing)	
Somalia (Wild collection)	
Uzbekistan (Wild collection)	
Venezuela (Processing)	
World*	69'845'243

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

*Total includes correction value for French overseas departments

Organic share of total agricultural land

The share of the world's agricultural land that is organic is 1.4 percent.

The highest organic share of total agricultural land, by region, is in Oceania (8.5 percent) followed by Europe with 2.9 percent and Latin America with 1.1 percent. In the European Union, the organic share of the total agricultural land is 7.2 percent. In the other regions, the share is less than one percent (Table 4).

Many individual countries, however, have a much higher organic share (Figure 3), and, in 14 countries, 10 percent or more of the agricultural land is used for organic production. Most of these countries are in Europe. The countries with the highest organic share are Liechtenstein and Samoa, with almost 38 percent of its agricultural land under organic management. It is interesting to note that many island states have high shares of agricultural land under organic management, such as Samoa and Sao Tome and Principe.

However, 56 percent of the countries for which data is available have less than one percent of their agricultural land under organic management (Figure 4).

Table 4: World: Organic agricultural land (including in-conversion areas) and organic share of total agricultural land by region 2017

Region	Organic agr. land [ha]	Share of total agri. land
Africa	2'056'571	0.2%
Asia	6'116'834	0.4%
Europe	14'558'246	2.9%
Latin America	8'000'888	1.1%
North America	3'223'057	0.8%
Oceania	35'894'365	8.5%
World*	69'845'243	1.4%

Source: FiBL survey 2019.

* Total includes correction value for French overseas departments.

To calculate the percentages, the data on the total agricultural land for most countries was taken from the FAO's Statistical database on the FAOSTAT website.¹ For the European Union, most data was obtained from Eurostat. Where available, data from national sources was used for the total agricultural land (for instance, Austria, Switzerland, and the United States), which sometimes differs from that published by Eurostat or FAOSTAT.

Please note that the calculation of the organic shares based on Eurostat and FAOSTAT data may differ in some cases from the data published by ministries and experts.

¹ FAOSTAT, the FAO Homepage, FAO, Rome at faostat3.fao.org > Agri-Environmental Indicators > Download <http://www.fao.org/faostat/en/#data/RL>

Countries with an organic share of at least 10 percent of the agricultural land 2017

Source: FiBL survey 2019

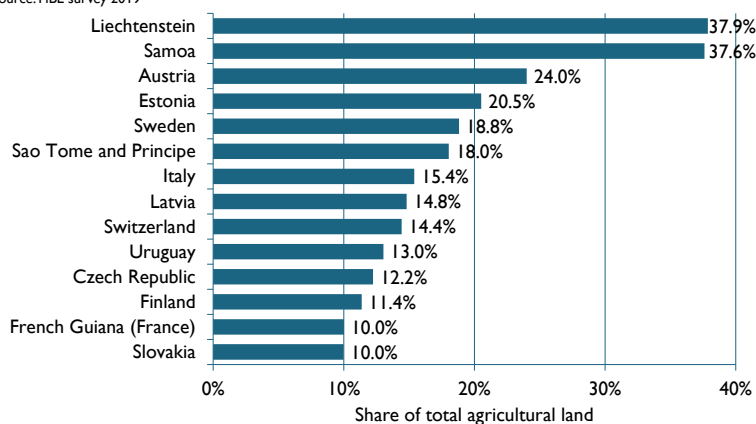


Figure 3: World: Countries with an organic share of the total agricultural land of at least 10 percent 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 331

Distribution of the organic shares of the agricultural land 2017

Source: FiBL survey 2019

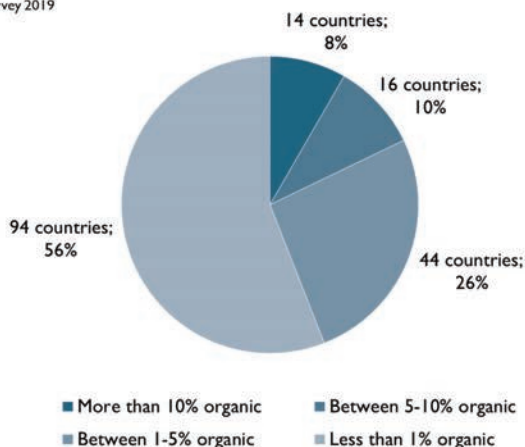


Figure 4: World: Distribution of the organic shares of the agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 331

Table 5: World: Organic shares of total agricultural land by country 2017 (sorted)

For an alphabetical country list (including information on data year), see page 325.

Country	Organic share	Country	Organic share
Liechtenstein	37.9%	Sierra Leone	2.6%
Samoa	37.6%	Argentina	2.3%
Austria	24.0%	Réunion (France)	2.1%
Estonia	20.5%	Romania	2.0%
Sweden	18.8%	Channel Islands	1.9%
Sao Tome and Principe	18.0%	Canada	1.8%
Italy	15.4%	Uganda	1.8%
Latvia	14.8%	Palestine, State of	1.8%
Switzerland	14.4%	Cook Islands	1.7%
Uruguay	13.0%	Philippines	1.6%
Czech Republic	12.2%	Ireland	1.5%
Finland	11.4%	Turkey	1.4%
French Guiana (France)	10.0%	Peru	1.3%
Slovakia	10.0%	Bhutan	1.3%
Slovenia	9.5%	Moldova	1.2%
Spain	8.9%	United Arab Emirates	1.2%
Australia	8.8%	Republic of Korea	1.2%
Dominican Republic	8.7%	Montenegro	1.2%
Denmark	8.6%	Martinique (France)	1.2%
Faroe Islands	8.4%	Papua New Guinea	1.1%
Timor-Leste	8.2%	Comoros	1.1%
Germany	8.2%	Iceland	1.1%
Lithuania	8.1%	Israel	1.1%
Vanuatu	8.0%	Grenada	1.1%
Portugal	7.0%	Togo	1.0%
Belgium	6.4%	India	1.0%
France	6.3%	Dominica	1.0%
Croatia	6.1%	Honduras	0.9%
Sri Lanka	6.0%	Taiwan	0.8%
Cyprus	5.1%	New Zealand	0.8%
Greece	5.0%	Azerbaijan	0.8%
Tonga	4.8%	Ecuador	0.7%
Norway	4.7%	Tanzania, United Republic of	0.7%
Kiribati	4.7%	Ukraine	0.7%
Hungary	4.3%	Panama	0.7%
Luxembourg	4.2%	Nicaragua	0.7%
Fiji	3.9%	United States Virgin Islands	0.7%
Solomon Islands	3.6%	Mexico	0.6%
Poland	3.4%	Kenya	0.6%
Niue	3.3%	United States of America	0.6%
French Polynesia	3.3%	Cape Verde	0.6%
Tunisia	3.0%	China	0.6%
Netherlands	3.0%	Viet Nam	0.5%
Bulgaria	2.9%	Ethiopia	0.5%
United Kingdom	2.9%	Benin	0.5%
Falkland Islands (Malvinas)	2.9%	Burkina Faso	0.5%
Egypt	2.8%	Costa Rica	0.5%

Statistics › Organic Agricultural Land › Organic Share

Country	Organic share
Malta	0.4%
Thailand	0.4%
Brazil	0.4%
Serbia	0.4%
Guadeloupe (France)	0.4%
Indonesia	0.4%
Guatemala	0.4%
Bahamas	0.3%
Mayotte	0.3%
Lao P.D.R.	0.3%
Haiti	0.3%
Bolivia	0.3%
Russian Federation	0.3%
Tajikistan	0.3%
Côte d'Ivoire	0.2%
Belize	0.2%
Congo, D.R.	0.2%
Macedonia, FYROM	0.2%
Nepal	0.2%
Japan	0.2%
Malawi	0.2%
Lebanon	0.2%
Cambodia	0.2%
Paraguay	0.2%
Sudan	0.2%
Kyrgyzstan	0.2%
Madagascar	0.2%
Syrian Arab Republic	0.1%
Pakistan	0.1%
Jordan	0.1%
Kazakhstan	0.1%
Chile	0.1%
El Salvador	0.1%
Cuba	0.1%
Ghana	0.1%
Bangladesh	0.1%
Armenia	0.1%
Jamaica	0.1%
Senegal	0.1%
Myanmar	0.1%
Namibia	0.1%
Nigeria	0.1%
Rwanda	0.1%
Colombia	0.1%
Suriname	0.1%
Bosnia and Herzegovina	0.1%
Georgia	0.1%
Guinea-Bissau	0.1%
New Caledonia	0.1%
Albania	0.05%

Country	Organic share
Kosovo	0.04%
South Africa	0.04%
Zambia	0.03%
Mali	0.03%
Morocco	0.03%
Iran (Islamic Republic of)	0.03%
Mozambique	0.03%
Zimbabwe	0.02%
Mauritius	0.02%
Swaziland	0.02%
Kuwait	0.01%
Cameroon	0.01%
Saudi Arabia	0.01%
Andorra	0.01%
Malaysia	0.01%
Puerto Rico	0.01%
Burundi	0.004%
Gambia	0.003%
Oman	0.003%
Algeria	0.002%
Afghanistan	0.001%
Iraq	0.001%
Niger	0.001%
Guinea	0.0001%
Bermuda (Processing)	
Brunei Darussalam (Aquaculture only)	
Chad (Wild collection)	
Guyana (Wild collection)	
Hong Kong (Processing)	
Lesotho (Wild collection)	
Mauritania (Wild collection)	
Monaco (Processing)	
San Marino (Processing)	
Singapore (Processing)	
Somalia (Wild collection)	
Uzbekistan (Wild collection)	
Venezuela (Processing)	
World	1.4%

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 331

Growth of the organic agricultural land

Compared with 1999, when 11 million hectares were organic, organic agricultural land has increased six-fold. In 2017, 11.7 million hectares, or 20 percent, more were reported compared with 2016. This is mainly due to the fact that 8.5 million additional hectares were reported from Australia. However, many other countries reported an important increase, thus contributing to the global increase of the organic land, like China (32 percent increase; over 0.7 million hectares more) and Argentina (12 percent increase; almost 0.4 million hectares more). In addition, the Russian Federation (almost 0.34 million hectares more) and India (almost 0.3 million hectares more; almost 20 percent) reported significant increases.

In 2017, the area of organic agricultural land increased in all regions (Table 6). The highest absolute growth was in Oceania (+31.3 percent, +8.5 million hectares), followed by Asia (+24.9 percent, over +1.2 million hectares) and Europe (+7.6 percent, +1 million hectares).

Ninety-three countries experienced an increase in the area of their organic agricultural land, while a decrease was reported in 36 countries. In 40 countries, the organic agricultural area either did not change or no new data was received.

The figures shown in the following tables and graphs with historical figures may differ from what was previously communicated, as data revisions were received and included in the FiBL database.

Table 6: World: Organic agricultural land (including in-conversion areas) by region: growth 2016-2017 and 10 years growth

Region	Organic agr. land 2016 [ha]	Organic agr. land 2017 [ha]	1 year growth [ha]	1 year growth [%]	10 years growth [ha]	10 years growth [%]
Africa	1'801'699	2'056'571	+254'871	+14.1%	+1'163'089	+130.2%
Asia	4'897'837	6'116'834	+1'218'996	+24.9%	+2'757'650	+82.1%
Europe	13'535'235	14'558'246	+1'023'011	+7.6%	+6'261'881	+75.5%
Latin America	7'479'288	8'000'888	+521'600	+7.0%	+762'714	+10.5%
North America	3'130'332	3'223'057	+92'725	+3.0%	+645'554	+25.0%
Oceania	27'346'986	35'894'365	+8'547'379	+31.3%	+23'783'698	+196.4%
World*	58'186'980	69'845'243	+11'658'263	+20.0%	+35'372'713	+102.6%

Source: FiBL survey 2019, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 331

* Total includes correction value for French Overseas Departments.

Growth of the organic agricultural land and organic share 1999-2017

Source: FiBL-IFOAM-SOEL-Surveys 1999-2019

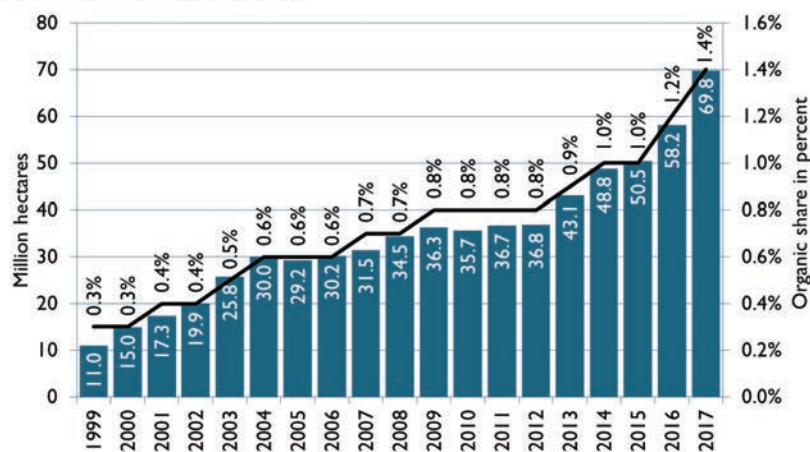


Figure 5: World: Growth of the organic agricultural land and organic share 1999-2017

Source: FiBL-IFOAM-SOEL surveys 2000-2019

Growth of the organic agricultural land by continent 2009-2017

Source: FiBL-IFOAM survey 2010-2019

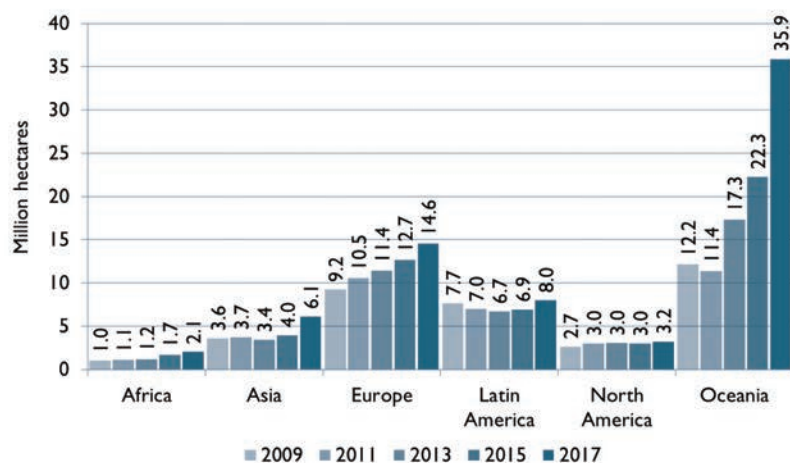


Figure 6: World: Growth of the organic agricultural land by continent 2009 to 2017

Source: FiBL-IFOAM-SOEL surveys 2011-2019

The ten countries with the highest increase of organic land 2017

Source: FiBL survey 2019

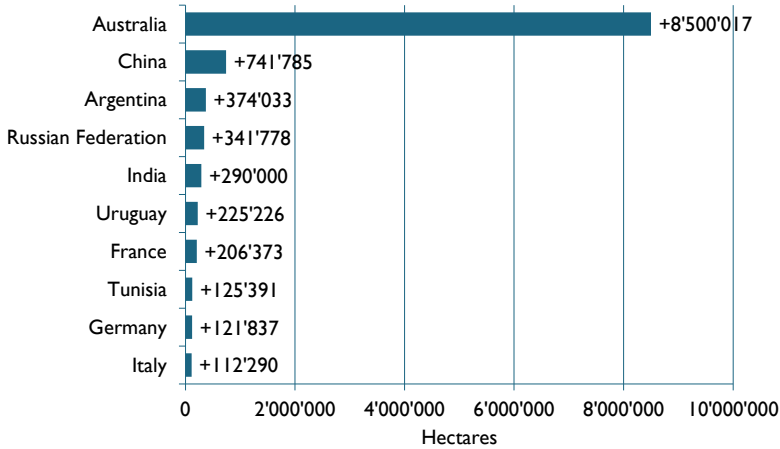


Figure 7: World: The ten countries with the highest increase of organic agricultural land 2017

Source: FiBL survey 2019, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 331

Table 7: World: Development of organic agricultural land by country 2014-2017

Important note: A direct year-to-year comparison is not always possible for many countries, because the data sources may have changed over the years, or data access may have improved. The figures published here may differ from previously published data due to data revisions. Data are not available for all countries for every year and; in these cases, the figure for the previous year is used (see also page 331). At statistics.fibl.org data back to 2000 is available.¹

Country	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]	1 year growth [ha]	10 years growth [ha]
Afghanistan		81	408	272	-136	250
Albania	662	662	662	549	-113	366
Algeria	700	706	772	772	-	-778
Andorra	4	2	4	2	-2	2
Argentina	3'061'965	3'073'412	3'011'794	3'385'827	374'033	607'868
Armenia	1'000	1'832	1'240	1'430	190	1'094
Australia	22'690'000	22'108'495	27'145'021	35'645'038	8'500'017	23'656'994
Austria	551'062	553'570	571'585	620'764	49'179	100'694
Azerbaijan	23'331	37'630	37'630	37'630	-	16'390
Bahamas	49	49	49	49	-	49
Bangladesh	6'860	6'860	6'860	8'056	1'196	8'056
Belgium	66'704	68'818	78'452	83'510	5'058	50'882
Belize	892	840	380	380	-	-352
Benin	2'344	2'364	5'679	18'928	13'249	17'440

¹ The data is available at <http://www.organic-world.net/statistics/statistics-data-tables.html>.

Statistics › Organic Agricultural Land › Development

Country	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]	1 year growth [ha]	10 years growth [ha]
Bermuda			Processing only			
Bhutan	6'829	6'950	6'632	6'632	-	6'573
Bolivia	1'14'306	1'14'306	1'14'306	1'14'306	-	73'302
Bosnia and Herzegovina	353	576	992	1'273	281	582
Brazil	750'000	940'000	1'094'133	1'136'857	42'724	204'737
Brunei Darussalam			Aquaculture only			
Bulgaria	74'351	1'18'552	160'620	136'629	-23'991	122'983
Burkina Faso	20'110	23'923	27'268	58'891	31'623	51'624
Burundi	148	184	103	83	-20	83
Cambodia	9'889	12'058	9'717	11'042	1'325	6'722
Cameroon	380	380	380	1'089	709	753
Canada	903'948	944'558	1'099'014	1'191'739	92'725	635'466
Cape Verde		495	495	495	-	495
Chad			Wild collection only			
Channel Islands	180	170	180	180	-	180
Chile	19'932	19'932	15'838	19'415	3'577	6'846
China	1'925'000	1'609'928	2'281'215	3'023'000	741'785	1'470'000
Colombia	31'621	31'621	31'621	31'621	-	-12'675
Comoros	1'723	1'534	2'577	1'445	-1'133	1'445
Congo, D.R.	89'058	94'386	94'386	60'624	-33'761	54'556
Cook Islands	10	10	10	25	15	25
Costa Rica	7'832	7'819	7'908	8'736	829	862
Côte d'Ivoire	19'548	40'078	42'004	50'446	8'442	49'503
Croatia	50'054	75'883	93'593	96'618	3'025	89'057
Cuba	2'979	4'338	1'282	6'186	4'904	-8'128
Cyprus	3'887	4'699	5'550	5'616	66	3'294
Czech Republic	472'663	478'033	488'591	520'032	31'441	207'142
Denmark	165'773	166'788	201'476	226'307	24'831	80'914
Dominica	240	240	240	240	-	240
Dominican Republic	166'220	163'936	205'258	205'258	-	82'169
Ecuador	45'818	45'818	39'824	41'793	1'969	-7'404
Egypt	85'801	85'000	105'908	105'908	-	86'702
El Salvador	6'736	13'728	1'426	1'677	251	-5'801
Estonia	155'560	155'806	180'852	196'441	15'589	116'911
Ethiopia	160'987	186'155	186'155	186'155	-	45'850
Falkland Islands (Malvinas)	403'212	135'596	135'596	31'937	-103'659	31'937
Faroe Islands	253	253	253	253	-	241
Fiji	9'218	10'939	13'347	16'604	3'257	16'504
Finland	212'653	225'235	238'240	259'451	21'211	110'691
France	1'118'845	1'322'202	1'538'047	1'744'420	206'373	1'187'287
French Guiana (France)	2'014	2'746	3'051	3'061	10	3'061
French Polynesia	93	167	14'229	1'491	-12'737	1'491
Gambia				20	20	-
Georgia	1'292	1'452	1'452	1'452	-	1'201
Germany	1'047'633	1'088'838	1'251'320	1'373'157	121'837	507'821

Statistics › Organic Agricultural Land › Development

Country	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]	1 year growth [ha]	10 years growth [ha]
Ghana	15'563	23'380	21'326	15'323	-6'004	-9'126
Greece	362'826	407'069	342'584	410'140	67'556	130'245
Grenada	85	85	85	85	-	85
Guadeloupe (France)	69	104	168	200	32	200
Guatemala	13'380	13'380	13'380	13'380	-	6'095
Guinea				10	10	10
Guinea-Bissau	1'843	3'403	689	835	145	-4'765
Guyana			Wild collection only			
Haiti	2'878	4'250	6'112	5'586	-526	5'586
Honduras	24'950	22'846	28'689	29'274	585	21'095
Hong Kong			Processing only			
Hungary	124'841	129'735	186'347	199'684	13'337	77'414
Iceland	11'174	9'797	22'710	20'177	-2'534	13'948
India	720'000	1'180'000	1'490'000	1'780'000	290'000	749'689
Indonesia	113'638	130'384	126'014	208'042	82'028	138'436
Iran	11'601	14'574	18'871	11'916	-6'955	11'003
Iraq	51	58	60	60	-	60
Ireland	51'871	73'037	76'701	74'336	-2'365	33'214
Israel	6'640	5'758	5'758	5'758	-	65
Italy	1'387'913	1'492'579	1'796'363	1'908'653	112'290	758'400
Jamaica	27	167	374	374	-	-63
Japan	9'937	10'043	9'956	9'956	-	3'330
Jordan	2'371	1'706	1'517	1'446	-71	399
Kazakhstan	291'203	303'381	303'381	277'145	-26'236	274'751
Kenya	4'894	150'479	154'488	172'225	17'737	167'589
Kiribati	1'600	1'600	1'600	1'600	-	1'600
Kosovo	114	160	160	160	-	160
Kuwait		20	20	20	-	20
Kyrgyzstan	6'929	7'565	7'974	19'327	11'354	4'179
Lao P.D.R.	6'275	1'445	7'668	7'668	-	7'668
Latvia	203'443	231'608	259'146	268'870	9'724	118'365
Lebanon	1'079	1'222	1'079	1'353	274	-593
Lesotho	560	548	548	Wild collection only	-548	-
Liechtenstein	1'135	1'107	1'383	1'389	6	341
Lithuania	164'390	213'579	221'665	234'134	12'469	113'716
Luxembourg	4'490	4'216	4'274	5'444	1'170	2'064
Macedonia, FYROM	3'146	2'174	3'245	2'900	-345	1'567
Madagascar	30'265	121'011	60'023	63'954	3'931	54'497
Malawi	102	207	12'239	12'232	-7	11'907
Malaysia	603	603	603	603	-	-937
Mali	11'919	11'919	11'919	12'655	736	9'253
Malta	34	30	24	43	19	31
Mauritania			Wild collection only			
Martinique (France)	248	279	297	364	67	364
Mauritius	6	1	13	14	1	14

Statistics › Organic Agricultural Land › Development

Country	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]	1 year growth [ha]	10 years growth [ha]
Mayotte	5	9		41	41	41
Mexico	501'364	584'093	673'968	673'968	-	280'507
Monaco			Processing only			
Moldova	22'102	28'729	30'142	30'142	-	18'447
Montenegro	3'289	3'213	3'470	2'715	-755	-22'336
Morocco	8'660	9'330	10'000	9'175	-826	5'584
Mozambique	15'421	16'176	7'412	12'586	5'174	11'858
Myanmar	5'320	5'626	4'568	10'248	5'680	10'248
Namibia	30'082	30'127	30'127	30'001	-127	29'921
Nepal	9'361	9'361	9'361	9'361	-	1'167
Netherlands	49'159	49'273	52'204	56'203	3'999	9'184
New Caledonia	411	411	438	94	-344	94
New Zealand	106'753	74'134	74'134	88'871	14'737	24'988
Nicaragua	33'621	33'621	33'621	33'621	-	-37'351
Niger	262	262	262	254	-8	123
Nigeria	5'021	5'021	52'421	53'402	981	50'248
Niue	164	52	164	165	1	6
Norway	49'827	47'640	47'621	47'042	-579	-1'821
Oman	38	38	38	38	-	38
Pakistan	23'828	34'209	45'299	51'304	6'005	26'303
Palestine, State of	6'896	6'014	5'993	5'298	-695	1'932
Panama	15'183	15'183	15'183	15'183	-	9'939
Papua New Guinea	19'796	15'829	15'632	13'675	-1'958	11'178
Paraguay	54'444	64'097	64'097	43'711	-20'387	-7'479
Peru	263'012	327'245	323'578	315'525	-8'053	210'811
Philippines	110'084	234'642	198'309	200'065	1'756	184'721
Poland	657'902	580'731	536'579	494'979	-41'600	209'101
Portugal	212'346	241'375	245'052	253'786	8'734	20'311
Puerto Rico	14	14	14	14	-	14
Republic of Korea	18'306	18'136	20'165	20'700	535	10'971
Réunion (France)	659	718	881	1'051	170	1'051
Romania	289'252	245'924	226'309	258'471	32'162	127'015
Russian Federation	245'846	385'140	315'155	656'933	341'778	623'132
Rwanda	2'248	1'169	1'284	1'276	-9	764
Samoa	40'477	27'656	63'393	106'406	43'013	99'163
San Marino			Processing only			
Sao Tome and Principe	6'706	6'706	6'706	8'780	2'074	5919
Saudi Arabia	37'563	36'487	17'212	17'075	-136	-5'140
Senegal	6'929	7'047	7'172	7'309	137	5'720
Serbia	9'548	15'298	14'358	13'423	-935	12'593
Sierra Leone		15'347	69'686	101'184	31'498	101'184
Singapore			Processing only			
Slovakia	180'307	181'882	187'024	189'148	2'124	71'242
Slovenia	41'237	42'188	43'579	46'222	2'643	16'900
Somalia			Wild collection only			

Statistics › Organic Agricultural Land › Development

Country	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]	1 year growth [ha]	10 years growth [ha]
Solomon Islands	5'302	5'612	5'723	3'927	-1'795	299
South Africa	19'501	34'203	14'196	41'377	27'182	-8'634
Spain	1'710'475	1'968'570	2'018'802	2'082'173	63'371	1'277'289
Sri Lanka	62'560	96'318	96'318	165'553	69'235	148'553
Sudan	130'000	130'000	130'000	130'000	-	73'676
Suriname	39	39	39	57	18	17
Swaziland	8	571	5	186	181	183
Sweden	501'831	518'983	552'695	576'845	24'150	268'572
Switzerland	133'973	137'234	142'073	151'404	9'331	34'763
Syrian Arab Republic	19'987	19'987	19'987	19'987	-	-8'474
Taiwan	5'993	6'490	6'490	6'490	-	4'477
Tajikistan	12'659	12'659	12'659	12'659	-	12'659
Tanzania	186'537	268'729	268'729	278'467	9'739	216'287
Thailand	37'684	45'587	57'189	91'266	34'077	72'110
Timor-Leste	25'479	25'232	28'259	31'278	3'019	7'488
Togo	15'321	15'324	21'572	39'390	17'818	36'845
Tonga	1'997	2'629	1'502	1'588	87	1'588
Tunisia	139'087	145'629	181'076	306'467	125'391	151'674
Turkey	491'977	486'069	523'777	520'886	-2'891	396'623
Uganda	240'197	241'150	262'282	262'282	-	-33'921
Ukraine	400'764	410'550	381'173	289'000	-92'173	39'128
United Arab Emirates	4'286	4'286	4'590	4'687	97	4'682
United Kingdom	521'475	495'929	490'205	497'742	7'537	-162'458
United States	1'554'517	2'029'327	2'031'318	2'031'318	-	295'234
US Virgin Islands	26	26	26	26	-	26
Uruguay	1'307'421	1'307'421	1'656'952	1'882'178	225'226	951'213
Uzbekistan	Wild collection only					
Vanuatu	6'594	9'474	11'794	14'881	3'087	5'885
Venezuela	Processing only					
Viet Nam	43'007	76'666	53'348	58'018	4'670	45'898
Zambia	7'552	8'138	7'738	7'997	259	5'467
Zimbabwe	474	980	3'179	3'246	67	3'246
World	48'753'982	50'466'250	58'186'980	69'845'243	11'658'263	35'372'713

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see previous editions of "The World of Organic Agriculture" and annex, page 331

*Total includes correction value for French overseas departments.

Further organic areas

Apart from land dedicated to organic agriculture, there are further areas of organic land dedicated to other activities. The largest part of these are wild collection areas and areas for beekeeping. Further non-agricultural areas include aquaculture, forests, and grazing areas on non-agricultural land. These areas totalled 42.4 million hectares, and all the organic areas together summed up to 112.3 million hectares.

It should be noted that many countries do not report non-agricultural organic areas. We can, therefore, assume that the data on the other areas are incomplete, in particular, the data on aquaculture and forests.

For organic aquaculture and beekeeping, other indicators (production and number of beehives) are more relevant than the area, and the significance of organic aquaculture and beekeeping cannot be measured in hectares. In Table 8 and Table 9, some area data on aquaculture can be found, but it should be noted that it is not complete.

For more information on aquaculture and beekeeping, see pages 91 and 88. More information on the use of the wild collection areas is available in the corresponding chapter, page 84.

Distribution of all organic areas in 2017

Source: FiBL survey 2019

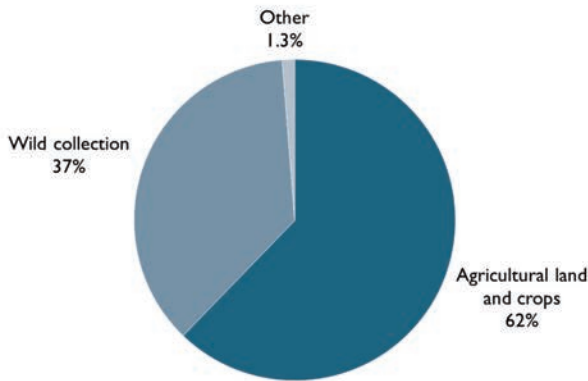


Figure 8: World: Distribution of all organic areas 2017. Total: 112.3 million hectares

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 8: World: Organic areas: Agricultural land (including conversion areas) and further organic areas by region in 2017

Region	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Africa	2'056'571	3'600	71'533	27'605	14'326'981		16'486'289
Asia	6'116'834	69'406	123	20'000	4'410'796	1'507	10'618'666
Europe	14'558'246		20'171	33'471	17'970'660		32'582'548
Latin America	8'000'888	934	40'007		4'201'829	11'930	12'255'588
North America	3'223'057		205'196		83'832		3'512'084
Oceania	35'894'365				769	919'919	36'815'053
World**	69'845'243	73'940	337'030	81'076	40'994'867	933'356	112'265'512

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Blank cells: No data available.

*Wild collection and beekeeping areas

**Total includes correction value for French overseas departments.

Table 9: World: Organic areas: Agricultural land (including conversion areas) and further organic areas by country 2017

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Afghanistan	272						272
Albania	549				682'696		683'245
Algeria	772				628		1'400
Andorra	2						2
Argentina	3'385'827				319'370	11'930	3'717'127
Armenia	1'430				4'820		6'250
Australia	35'645'038					919'919	36'564'957
Austria	620'764						620'764
Azerbaijan	37'630	123	123		1'063		38'939
Bahamas	49						49
Bangladesh	8'056	5'848					13'903
Belgium	83'510				3		83'512
Belize	380						380
Benin	18'928				3'700		22'628
Bermuda				Processing only			
Bhutan	6'632				15'787		22'419
Bolivia	114'306				922'991		1'037'297
Bosnia and Herzegovina	1'273				150'604		151'877
Brazil	1'136'857				1'209'773		2'346'630
Brunei Darussalam		29					29
Bulgaria	136'629				307'020		443'649

Country	Agriculture [ha]	Aqua- culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Burkina Faso	58'891				231'765		290'656
Burundi	83						83
Cambodia	11'042				4'330		15'372
Cameroon	1'089				47'000		48'089
Canada	1'191'739				83'493		1'275'232
Cape Verde	495						495
Chad					124'130		124'130
Channel Islands	180						180
Chile	19'415				154'943		174'357
China	3'023'000				1'260'000		4'283'000
Colombia	31'621				7'320		38'941
Comoros	1'445				63		1'508
Congo, D.R.	60'624						60'624
Cook Islands	25						25
Costa Rica	8'736	851					9'588
Côte d'Ivoire	50'446				1'060		51'506
Croatia	96'618				7		96'625
Cuba	6'186						6'186
Cyprus	5'616						5'616
Czech Republic	520'032						520'032
Denmark	226'307				2'648		228'955
Dominica	240						240
Dominican Republic	205'258						205'258
Ecuador	41'793	79	40'007		330		82'209
Egypt	105'908				60'000		165'908
El Salvador	1'677						1'677
Estonia	196'441			3'506	260'662		460'609
Ethiopia	186'155				9'033		195'188
Falkland Islands (Malvinas)	31'937						31'937
Faroe Islands	253				0		253
Fiji	16'604				653		17'257
Finland	259'451				11'631'680		11'891'131
France	1'744'420						1'744'420
French Guiana (France)	3'061						3'061
French Polynesia	1'491				4		1'496
Gambia	20						20
Georgia	1'452				215	1'507	3'174
Germany	1'373'157						1'373'157
Ghana	15'323				115'974		131'296
Greece	410'140				317'053		727'193
Grenada	85						85

Statistics › All Organic Areas

Country	Agriculture [ha]	Aqua- culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Guadeloupe (France)	200						200
Guatemala	13'380				5		13'385
Guinea	10				1'000		1'010
Guinea-Bissau	835						835
Guyana					58'000		58'000
Haiti	5'586						5'586
Honduras	29'274						29'274
Hong Kong				Processing only			
Hungary	199'684						199'684
Iceland	20'177		525		200'043		220'744
India	1'780'000				1'780'000		3'560'000
Indonesia	208'042	4'160			18'269		230'470
Iran	11'916			20'000	50'219		82'135
Iraq	60						60
Ireland	74'336						74'336
Israel	5'758						5'758
Italy	1'908'653				259'878		2'168'531
Jamaica	374				36		410
Japan	9'956						9'956
Jordan	1'446						1'446
Kazakhstan	277'145				863		278'008
Kenya	172'225				151'425		323'650
Kiribati	1'600						1'600
Kosovo	160				179'580		179'740
Kuwait	20						20
Kyrgyzstan	19'327				10		19'337
Lao P.D.R.	7'668				17'068		24'736
Latvia	268'870						268'870
Lebanon	1'353				209		1'562
Lesotho					1		1
Liechtenstein	1'389						1'389
Lithuania	234'134						234'134
Luxembourg	5'444						5'444
Macedonia, FYROM	2'900			29'965	1'164'190		1'197'055
Madagascar	63'954				15'500		79'454
Malawi	12'232				6'319		18'551
Malaysia	603				1'115		1'718
Mali	12'655				8'690		21'344
Malta	43						43
Martinique (France)	364						364
Mauritania					2'800		2'800
Mauritius	14						14
Mayotte	41						41
Mexico	673'968				1'292'306		1'966'274

Country	Agriculture [ha]	Aqua- culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Moldova	30'142				424		30'566
Monaco				Processing only			
Montenegro	2'715				143'410		146'125
Morocco	9'175				180'391		189'565
Mozambique	12'586				844'400		856'986
Myanmar	10'248						10'248
Namibia	30'001				1'311'400		1'341'401
Nepal	9'361				24'422		33'783
Netherlands	56'203						56'203
New Caledonia	94						94
New Zealand	88'871						88'871
Nicaragua	33'621				11'463		45'084
Niger	254						254
Nigeria	53'402	3'600			1'000		58'002
Niue	165				112		277
Norway	47'042						47'042
Oman	38						38
Pakistan	51'304				44'620		95'924
Palestine, State of	5'298						5'298
Panama	15'183						15'183
Papua New Guinea	13'675						13'675
Paraguay	43'711				3'067		46'778
Peru	315'525	4			222'224		537'753
Philippines	200'065				14		200'079
Poland	494'979						494'979
Portugal	253'786		19'533		40'000		313'319
Puerto Rico	14						14
Republic of Korea	20'700						20'700
Réunion (France)	1'051						1'051
Romania	258'471				1'787'548		2'046'019
Russian Federation	656'933				30'991		687'924
Rwanda	1'276				12		1'287
Samoa	106'406						106'406
San Marino				Processing only			
Sao Tome and Principe	8'780						8'780
Saudi Arabia	17'075						17'075
Senegal	7'309				26'607		33'915
Serbia	13'423				1'550		14'973
Sierra Leone	101'184				5'422		106'606
Singapore				Processing only			
Slovakia	189'148						189'148

Statistics > All Organic Areas

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Slovenia	46'222				13'238		59'460
Solomon Islands	3'927						3'927
Somalia					807'300		807'300
South Africa	41'377				1'284'663		1'326'040
Spain	2'082'173				38'184		2'120'357
Sri Lanka	165'553						165'553
Sudan	130'000				173'913		303'913
Suriname	57						57
Swaziland	186						186
Sweden	576'845						576'845
Switzerland	151'404						151'404
Syrian Arab Republic	19'987				8'000		27'987
Taiwan	6'490	2					6'492
Tajikistan	12'659				1'055'890		1'068'549
Tanzania	278'467				2'418'740		2'697'207
Thailand	91'266	662			117'560		209'488
Timor-Leste	31'278						31'278
Togo	39'390				242		39'632
Tonga	1'588						1'588
Tunisia	306'467		71'533	27'605	25'486		431'091
Turkey	520'886		113		189'251		710'250
Uganda	262'282				158'328		420'610
Ukraine	289'000				570'000		859'000
United Arab Emirates	4'687						4'687
United Kingdom	497'742						497'742
United States	2'031'318		205'196		338		2'236'852
Uruguay	1'882'178						1'882'178
US Virgin Islands	26						26
Uzbekistan					5'000		5'000
Vanuatu	14'881						14'881
Venezuela				Processing only			
Viet Nam	58'018	58'583			1'323		117'924
Zambia	7'997				5'966'900		5'974'897
Zimbabwe	3'246				343'090		346'336
World**	69'845'243	73'940	337'030	81'076	40'994'867	933'356	112'265'512

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

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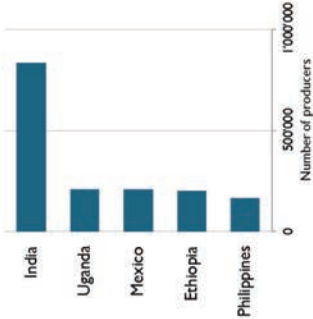
*Wild collection and beekeeping areas

**Total includes correction value for French overseas departments.

ORGANIC PRODUCERS 2017



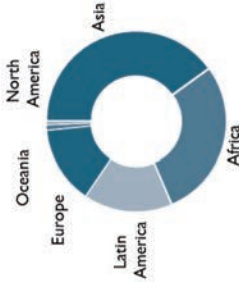
The country with the most organic producers is India, followed by Uganda and Mexico.



The five countries with the largest numbers of organic producers 2017



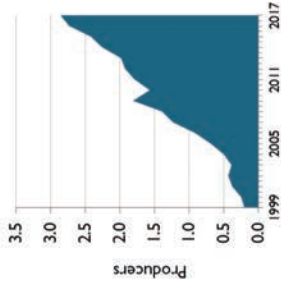
More than 80% of the producers are in Asia, Africa, and Latin America.



Distribution of organic producers by region 2017



There has been an increase in the number of producers by almost 127'500, or over 5% since 2016.



Development of the number of organic producers 1999-2017



Infographic 3: Organic producers 2017

Source: FiBL survey 2019

Source: FiBL survey 2019 www.organic-world.net – statistics.fibl.org

Organic producers and other operator types

Producers

There were over 2.9 million organic producers worldwide. According to the data obtained, over 80 percent of the producers are in Asia, Africa, and Latin America (Figure 9). The country with the most organic producers is India, followed by Uganda and Mexico (Figure 10).

There has been an increase in the number of producers of almost 130'000, or 4.7 percent, compared with 2016. In 2017, Togo, Thailand, Burkina Faso, and Indonesia reported significant increases. These five countries represent most of the total global increase.

Reporting precise figures on the number of organic farms remains difficult as some countries:

- report only the numbers of companies, projects, or grower groups, which may each comprise a number of individual producers;
- do not provide data on the number of producers at all;
- include collectors in case there are wild collection areas, and
- provide the number of producers per crop, and there may be overlaps for those growers who grow several crops.

The number of producers should, therefore, be treated with caution, and it may be assumed that the total number of organic producers is higher than that reported here.

Table 10: World: Development of the numbers of producers by region 2016 to 2017

Region	2016 [no.]	2017 [no.]	1 year growth [no.]	1 year growth [%.]	10 years growth [no.]	10 years growth [%.]
Africa	1'108'040	1'144'263	+36'223	+3.3%	+739'064	+182.4%
Asia	741'367	815'070	+73'703	+9.9%	+337'344	+70.6%
Europe	462'418	455'749	-6'669	-1.4%	+193'332	+73.7%
Latin America	373'251	397'509	+24'258	+6.5%	+175'009	+78.7%
North America	27'366	26'750	-616	-2.3%	+18'790	+236.1%
Oceania	18'422	19'017	+595	+3.2%	+2'189	+13.0%
World	2'730'864	2'858'358	+127'494	+4.7%	+1'465'837	+105.3%

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Distribution of organic producers by region 2017

Source: FiBL survey 2019

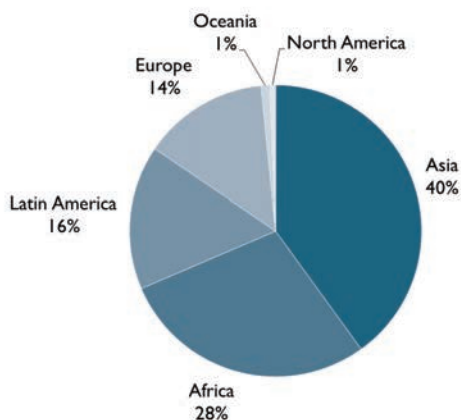


Figure 9: World: Distribution of organic producers by region 2017 (Total: 2.9 million producers)

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

The ten countries with the largest numbers of organic producers 2017

Source: FiBL survey 2019

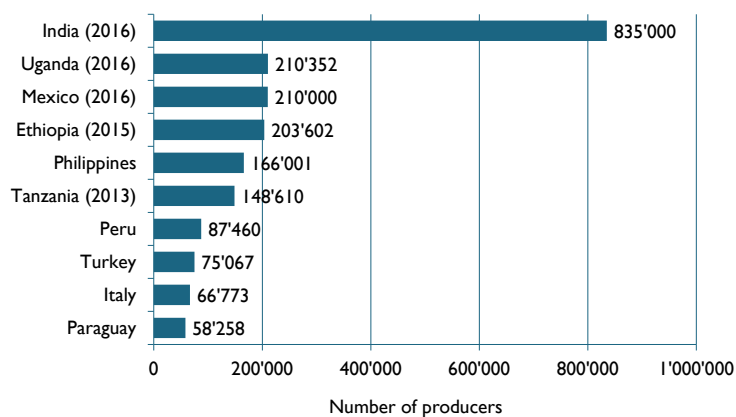


Figure 10: World: The ten countries with the largest numbers of organic producers 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Further operator types

Regarding data on further operator types, there are almost 88'000 processors and approximately 5'900 importers, most of them in Europe. However, not all countries reported the number of processors, exporters, importers, or other operator types. For instance, data for the United States is missing, and it can be assumed that the number of processors, importers, and exporters is far higher than what is indicated in the table below.

Further operator types reported were beekeepers, exporters, importers, smallholder groups, and aquaculture enterprises as well as the number of collectors (wild collection).

Table 11: World: Organic producers and other operator types by country 2017

For many countries (particularly those with no private or governmental data collection system), data on the various operator types is missing or incomplete, and only the number of producers or the total number of all operators is available.

Country	Producers ¹	Processors	Importers	Exporters
Afghanistan				
Albania (2014)	61	53	4	36
Algeria (2016)	64	3		
Andorra		3		
Argentina	1'157	340		99
Armenia	36	22		
Australia	1'998	1'432	92	169
Austria	24'998	1'650	66	14
Azerbaijan (2015)	305	50	50	
Bahamas				
Bangladesh	9'337			
Belgium	2'105	1'227	235	108
Belize (2015)	820	820		3
Benin	4'030	25		18
Bermuda				
Bhutan	4'295			
Bolivia (2014)	12'114	273		
Bosnia and Herzegovina	304	31		15
Brazil	15'030	44		44
Brunei Darussalam		Aquaculture only		
Bulgaria	6'471	181	29	6
Burkina Faso	26'626	106		71
Burundi (2016)	35			
Cambodia	6'760	7		
Cameroon	499	44		19
Canada	4'800	1'865		
Cape Verde				
Chad		4		4

¹ Some countries report only the numbers of companies, projects or growers groups, which may each comprise a number of producers..

Statistics › Producers and Other Operators

Country	Producers ¹	Processors	Importers	Exporters
Chile (2014)	446	197		88
China (2016)	6'308	3'865	66	1'198
Colombia (2014)	4'775	47		45
Comoros	1'540	6		5
Congo, D.R.	42'323	11		11
Cook Islands	20			
Costa Rica	50	51		52
Côte d'Ivoire	2'777	35		25
Croatia	4'023	357	23	
Cuba	509	8		3
Cyprus	1'175	64	15	
Czech Republic	5'275	655	250	141
Denmark	3'637	1'018	78	80
Dominican Republic	29'311	152		28
Ecuador	12'483	247	4	178
Egypt	970	242		242
El Salvador	383	9		
Estonia	1'888	169	33	10
Ethiopia (2015)	203'602	23		40
Falkland Islands (Malvinas)	4			5
Faroe Islands				
Fiji	1'627	9		
Finland	4'665	360	59	15
France	36'691	14'859	418	
French Guiana (France)	66	9		
French Polynesia	25	4		
Gambia				
Georgia (2015)	1'075			
Germany	29'764	15'019	1'687	1'242
Ghana	3'164	43		28
Greece	20'197	1'586	30	69
Grenada (2010)	3			
Guadeloupe (France)	49	6		
Guatemala (2011)	3'008	23		92
Guinea		3		3
Guinea-Bissau				
Guyana (2016)				
Haiti	2'245			4
Honduras	6'023		1	25
Hong Kong				
Hungary	3'642	492	36	
Iceland	33	32	2	2
India (2016)	835'000	699		669
Indonesia	17'948	273		
Iran (Islamic Republic of)	3'879	25		33
Ireland	1'725	277	24	2
Israel (2015)	303	303	41	40
Italy	66'773	18'092	411	518
Jamaica (2016)	127			
Japan (2012)	2'130	1'805	193	
Jordan	23	5		4

Statistics › Producers and Other Operators

Country	Producers ¹	Processors	Importers	Exporters
Kazakhstan	61	67	7	
Kenya	44'966	24	5	15
Kiribati	900			
Kosovo (2015)	100	5		
Kuwait				
Kyrgyzstan	1'097	11		3
Lao P.D.R. (2011)	1'342			
Latvia	4'178	51	10	
Lebanon	107	51	5	3
Lesotho		3		
Liechtenstein	45			
Lithuania	2'478	86	12	
Luxembourg	103	89	6	
Macedonia, The Former Yugoslav Republic of	650	119	6	7
Madagascar	21'935	115		111
Malawi	6	6		5
Malaysia	119	7		
Mali	12'272	13		16
Malta	13	5	12	
Martinique (France)	55	10		
Mauritania				
Mauritius	22	7		6
Mayotte	5			
Mexico	210'000	154		48
Moldova (2016)	114			72
Monaco				
Montenegro	616	3		
Morocco	116	76		15
Mozambique	8	10		6
Myanmar	16	23		
Namibia	23	14		4
Nepal	983			
Netherlands	1'696	995	385	87
New Caledonia	94			
New Zealand	876	304	29	94
Nicaragua (2015)	10'060	30		4
Niger				
Nigeria	1'087	5		80
Niue	27			
Norway	2'070	407	84	
Oman (2013)	4			
Pakistan	25	33		
Palestine, State of	1'449	45		5
Panama (2013)	1'300			
Papua New Guinea	12'749	10		
Paraguay (2015)	58'258	22		23
Peru	87'460			153
Philippines	166'001	78		31
Poland	20'257	795	161	216
Portugal	4'674	760	22	
Puerto Rico (2016)	5			

Statistics › Producers and Other Operators

Country	Producers ¹	Processors	Importers	Exporters
Republic of Korea (2016)	12'896	729		
Réunion (France)	257	29		
Romania	7'908	161	9	6
Russian Federation	89	69		28
Rwanda	9'002	10		
Samoa	2'053	6		
San Marino (2016)				
Sao Tome and Principe	3'564	4		5
Saudi Arabia	145			
Senegal	18'913	21		18
Serbia	6'022	51	39	
Sierra Leone	1'846	8		
Singapore		14		
Slovakia	439	85	22	
Slovenia	3'627	375	18	
Solomon Islands	1'213			
Somalia				
South Africa	281	187	2	137
Spain	37'712	4'297	263	137
Sri Lanka	8'703	224		311
Sudan	218	11		12
Sweden	5'801	1'328	89	10
Switzerland	6'638	1'289	548	18
Syrian Arab Republic (2010)	2'458	9		
Taiwan (2015)	2'598			
Tajikistan (2012)	10'486	15		
Tanzania	148'610	15		28
Thailand	38'120	291		51
Timor-Leste	3	4		3
Togo	36'645	15		31
Tonga	1'364			
Tunisia	7'236	290	20	79
Turkey	75'067	1'142	44	69
Uganda	210'352	15		14
Ukraine	304			
United Arab Emirates	97		2	7
United Kingdom	3'479	3'131	182	
United States of America (2016)	14'217			
US Virgin Islands				
Uruguay	5	32		10
Uzbekistan (2010)				
Vanuatu	3'804	12		
Viet Nam	10'150	75	60	32
Zambia	10'061	6		3
Zimbabwe	2'007	22		6
World	2'858'358	87'711	5'896	7'567

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Blank cells: No data available.

*Total number includes data for countries with less than three operators.

ORGANIC RETAIL SALES 2017

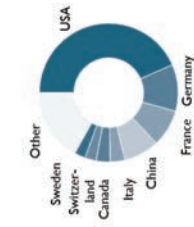


The largest single market is the USA followed by the EU (34.3 billion €) and China. By region, North America has the lead (43 billion €), followed by Europe (37.3 billion €) and Asia.

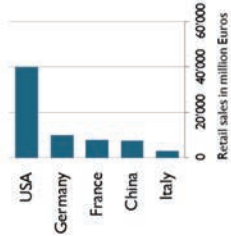
The countries with the largest markets for organic food are the United States (40 billion €), followed by Germany (10 billion €), France (7.9 billion €) and China (7.6 billion €).

Switzerland has the highest per capita consumption worldwide, followed by Denmark and Sweden.

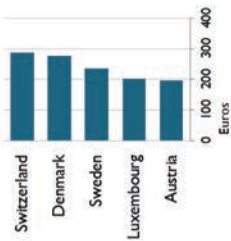
The highest shares the organic market of the total market is in Denmark, followed by Sweden, Switzerland, Austria, and Luxembourg.



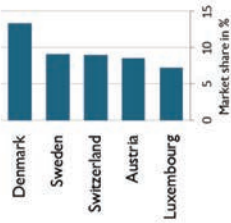
Distribution of retail sales value by country 2017



The five countries with the largest markets for organic food 2017



The five countries with the highest per capita consumption 2017



The five countries with the highest organic shares of the total market 2017



Infographic 4: Organic retail sales 2017

Source: FiBL survey 2019

Source: FiBL survey 2018 www.organic-world.net – statistics.fibl.org

Retail sales and international trade data¹

Retail sales

Whereas Amarjit Sahota presents global trends for the organic market along with much background information (page 146), in this chapter, we show the country-related market data that was compiled under the framework of the FiBL survey on organic agriculture. Data on total retail sales value was available for 56 countries (30 percent of the total countries with organic data), which means that for many countries with organic farming activities such data is missing.²

The country with the largest market for organic food is the United States (40 billion euros), followed by Germany (10 billion euros), France (7.9 billion euros), and China (7.6 billion euros). The largest single market is the United States followed by the European Union (34.3 billion euros) and China (Figure 84). By region, North America has the lead (43 billion euros), followed by Europe (37.3 billion euros) and Asia (Table 12).

Market growth was noted in all countries for which 2017 data was available, and in many cases, it was in the double digits. France was the countries that registered the biggest growth, the market increased by 18 percent. In Spain, the market grew by 16.4 percent, and in Liechtenstein and Denmark, the market increased by over 15 percent each.

Whereas the highest per capita consumption by continent is in North America (119 euros), by country it is highest in European countries. In 2017, Switzerland had the highest per capita consumption (288 euros) worldwide, followed by Denmark (278 euros), and Sweden (237 euros) (Table 13).

Looking at the shares the organic market has of the total market, the leader is Denmark (13.3 percent), followed by Sweden (9.14 percent), Switzerland (9 percent), Austria (8.6 percent), and Luxembourg (7.3 percent) (Table 13).

Export data

International trade data is becoming available for more and more countries. These can be expressed as total export/import volumes in metric tons or as values. Some countries also provide breakdowns by crop and product. Table 13 shows the values of total exports where available. More than 52 countries provided data on export values.

¹ Please note that due to differences in the methodology, some of the figures presented in this chapter differ from those collected in by Ecovia Intelligence (see chapter by Amarjit Sahota on page 146).

² Some countries also provide a breakdown by product, be it in value (euros) or volume (tons), and the European OrganicDataNetwork project has made these data accessible (for Europe) on its website at www.organicdatanetwork.net.

Table 12: Global market data: Retail sales and per capita consumption by region 2017

Region	Retail sales [Million €] ¹	Per capita consumption [€]
Africa*	16	-
Asia	9'601	2.1
Europe	37'351	50.3
Latin America**	810	1.3
North America	43'012	119.1
Oceania	1'293	31.8
World	92'074	12.2

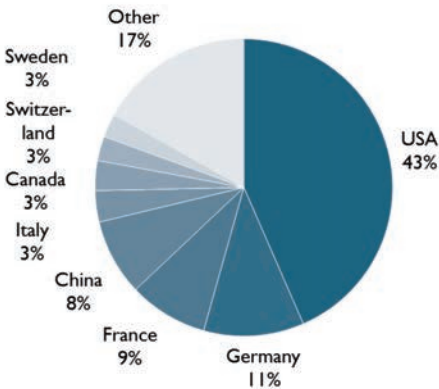
Source: FiBL-AMI survey 2019, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 331.

* Data from Ethiopia, Kenya, and Zimbabwe.

** Data from Belize, Brazil, Chile, Costa Rica, Jamaica, Mexico, and Peru.

Global market: Distribution of retail sales value by country 2017

Source: FiBL-AMI survey 2019, based on retail sales with organic food



Global market: Distribution of retail sales value by region 2017

Source: FiBL-AMI survey 2019, based on retail sales with organic food

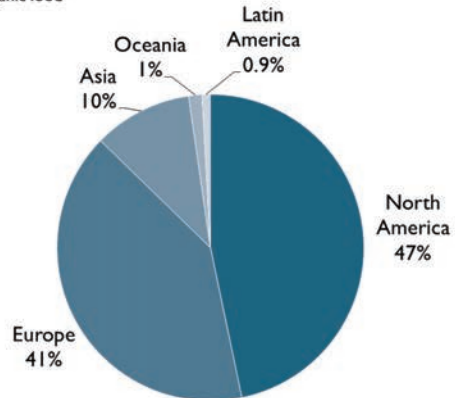


Figure 11: Global market for organic food: Distribution of retail sales by country 2017

Figure 12: Global market for organic food: Distribution of retail sales by region 2017

Source: FiBL-AMI survey 2019, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 331

¹ According to the Central European Bank, 1 euro corresponded to 1.1297 US dollars in 2017.

The ten countries with the largest markets for organic food 2017

Source: FiBL-AMI survey 2019

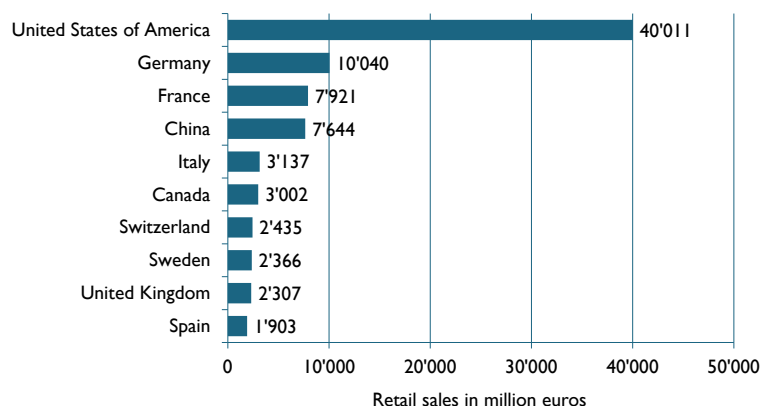


Figure 13: Global market: The countries with the largest markets for organic food 2017

Source: FiBL-AMI survey 2019, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 331

The ten countries with the highest per capita consumption 2017

Source: FiBL-AMI survey 2019

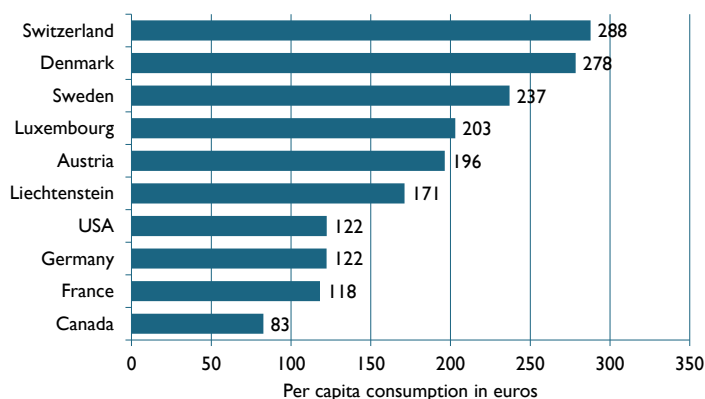


Figure 14: Global market: The ten countries with the highest per capita consumption 2017

Source: FiBL-AMI survey 2019, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 331

Table 13: Global market data: Retail sales, organic share of all retail sales, per capita consumption, and exports by country 2017

It should be noted that for market and trade data, comparing country statistics remains very problematic, due to differing methods of data collection. Comments on this table should be sent to helga.willer@fibl.org. Revisions will be posted at <http://www.organic-world.net/statistics/statistics-data-revisions.html> and included into the FiBL database.

Country	Data year	Retail sales [Million €] ¹	Organic share [%]	€/person	Exports [Million €]
Argentina	2009				122
Australia	2017	1'138		47	487
Austria	2011				80
	2017	1'723	8.6	196	
Azerbaijan	2011	3		0.3	
Belgium	2017	632	2.5	56	
Belize	2015	0.1		0.2	0.3
Bhutan	2011				
Bolivia	2011				179
Bosnia and Herzegovina	2017	0.4		0.1	4
Brazil	2016	778		4	126
Bulgaria	2017	29		4	
Cambodia	2009				1
Canada	2016				434
	2017	3'002	2.6	83	
Chile	2009	2		0.1	
	2017				213
China	2016				1'049
	2017	7'644		5	
Colombia	2007				13
Costa Rica	2008	1		0.3	
	2009				19
Croatia	2011				3
	2014	99	2.2	24	
Cyprus	2006	2		2	
Czech Republic	2016	94	0.9	9	61
Denmark	2017	1'601	13.3	278	396
Dominican Republic	2016				191
Estonia	2017	46	2.0	32	27
Ethiopia	2015	13		0.1	181
Finland	2014				10
	2017	309	2.3	56	
France	2017	7'921	4.4	118	707
Germany	2017	10'040	5.1	122	
Greece	2017	66		6	
Hungary	2009				20
	2015	30		3	
India	2017	186		0.2	582
Ireland	2011		0.7		
	2017	206		43	
Italy	2017	3'137	3.2	52	2'060
Jamaica	2016	1		0.3	
Japan	2017	1'409	1.4	11	
Kazakhstan	2015				9

¹ According to the Central European Bank, 1 euro corresponded to 1.1297 US dollars in 2017.

Statistics › Retail Sales and International Trade

Country	Data year	Retail sales [Million €] ¹	Organic share [%]	€/person	Exports [Million €]
Kenya	2016	3		0.1	24
Kosovo	2015				6
Kyrgyzstan	2017				418
Latvia	2017	51	1.5	6	51
Liechtenstein	2016	6		171	
Lithuania	2017	51	1.0	18	45
Luxembourg	2016			203	
	2017	122	7.3		
Mexico	2013	14		0.1	373
Moldova	2011				15
Montenegro	2010	0.1		0.2	
Netherlands	2016				1'200
	2017	1'206	4.5	71	
New Zealand	2017	155	2.2	33	224
Norway	2016		1.7		
	2017	419		80	
Peru	2010	14		0.5	
	2015				347
Poland	2017	235		6	
Portugal	2011	21	0.2	2	
Republic of Korea	2017	330		7	
Romania	2011				200
	2016	41		2	
Russian Federation	2009				4
	2012	120		1	
Samoa	2010				0.1
Senegal	2012				1
Serbia	2016				19
Slovakia	2010	4	0.2	1	
Slovenia	2009				0.1
	2013	49	1.8	27	
Spain	2016				891
	2017	1'903	2.8	42	
Sri Lanka	2015				259
Sweden	2016				84
	2017	2'366	9.1	237	
Switzerland	2017	2'435	9.0	288	
Thailand	2014	12		0.2	28
Turkey	2014	46		1	
	2017				182
Ukraine	2017	29		1	99
United Kingdom	2016				194
	2017	2'307	1.5	35	
United States	2016				2'981
	2017	40'011	5.5	122	
Viet Nam	2016	18		0.2	77
Zimbabwe	2016	0.2		0.01	1

Source: FiBL-AMI survey 2019, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 331

Blank cells: No data available

Organic farming in developing countries and emerging markets

The Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) is a forum to discuss issues surrounding aid, development and poverty reduction in developing countries. The recipients of Official Development Assistance (ODA) according to DAC are studied in this section.

More than 2.5 million organic producers from the countries on the DAC list¹ were counted (87 percent of all organic producers). Almost a quarter of the world's organic agricultural land, 16.8 million hectares, is located in countries listed on the DAC list.

If wild collection and beekeeping areas are included, the total area is 42.3 million hectares. Almost half of the agricultural land of the countries on the DAC list is located in Latin American countries (almost 8 million hectares), with Asia (6.1 million) and Africa (2.1 million) in second and third place. The countries with the largest areas of organic agricultural land are Argentina, China, Uruguay, India, and Brazil, in that order. Not surprisingly, most of them are large countries (Figure 15).

However, when it comes to organic agricultural land as a percentage of the total area under cultivation, the order is different. The countries on the DAC list with the highest percentages of organic agricultural land are Samoa (37.6 percent), Sao Tome and Principe (18 percent), and Uruguay (13 percent). Argentina, with by far the largest area under organic cultivation (with 3.4 million hectares), is ranked sixteen when the organic agricultural area is expressed as a share of the total agricultural area. The organic share of the total agricultural land of the top ten countries on the DAC list is comparable to that of many European countries, and they can be attributed in part to a high production potential for, and focus on, exports. Support activities may also play a role. However, out of all the countries on the DAC list, only 28 percent of them have an organic share higher than one percent of the total agricultural area (Figure 16).

Land use details were available for more than 80 percent of the agricultural land of the countries on the DAC list; crop data is missing for some of the world's largest producing countries (India and Brazil). Available statistics show that organic grassland/grazing areas constitute over 35 percent of the organic agricultural land, organic arable land 24 percent, and organic permanent crops 20 percent. Exports play an important role, either for meat products (mainly from Argentina and Uruguay) or for unprocessed permanent and arable crops. The most important crops are export crops, such as cereals, coffee, oilseeds, textile crops (mainly cotton), cocoa, coconut,

¹ The country list of the Development Assistance Committee DAC is available on the OECD website at <http://www.oecd.org/dac/stats/daclist.htm>

etc. For Africa, coffee and olives, for Asia, cereals and oilseeds, and for Latin America, coffee and cocoa are the most important crops.

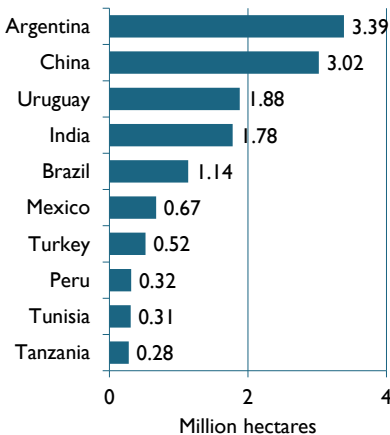
Table 14: Countries on the DAC list: Development of organic agricultural land 2012-2017

Region	2012 [ha]	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	2017 [ha]
Africa	1'148'896	1'208'254	1'259'984	1'682'061	1'800'818	2'055'479
Asia	3'150'217	3'321'988	3'482'482	3'882'363	4'832'130	6'050'701
Europe	546'781	476'759	509'089	508'151	546'663	541'906
Latin America	6'543'377	6'305'644	6'424'945	6'788'417	7'340'087	7'965'237
Oceania	53'370	62'511	85'159	73'802	113'164	158'871
Total DAC countries	11'442'641	11'375'156	11'761'659	12'934'795	14'632'863	16'772'194

Source: FiBL surveys 2013-2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

The ten countries on the DAC list with the largest areas of organic agricultural land 2017

Source: FiBL survey 2019



The ten countries on the DAC list with the highest organic shares of the total agricultural land 2017

Source: FiBL survey 2019

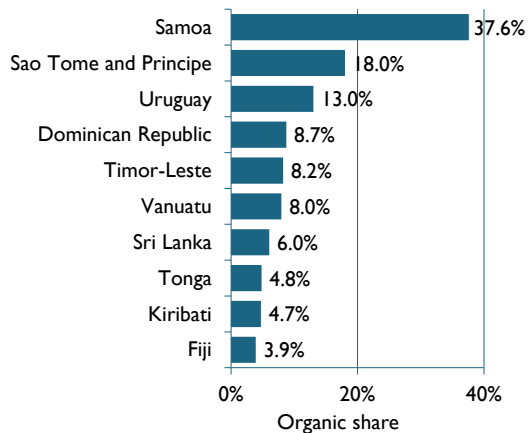


Figure 15 (left): Countries on the DAC list: The ten countries with the largest areas of organic agricultural land in 2017

Figure 16 (right): Countries on the DAC list: The ten countries with the highest organic shares of the total agricultural land in 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Land use and key commodities in organic agriculture

Land use

Over two-thirds of the 69.9 million hectares of organic agricultural land in 2017 were grassland/grazing areas (almost 48.2 million hectares). The cropland area (arable land with 12.1 million hectares and permanent crops with 4.9 million hectares) constituted 17 million hectares, and over a quarter of the organic agricultural land. The cropland area is probably much higher because details on land use are not available for some countries with large organic agricultural areas such as Brazil and India. General land use information was available for 93 percent of the organic agricultural land; however, this does not mean that detailed crop information is available for all areas as not all countries provided detailed crop data.¹

The FAO classification² of land use was utilized for this survey with slight modifications. A system similar to that of Eurostat was used for the classification of crops. The following main levels were used to classify the land use data: arable land, permanent crops, cropland for which no further details were available (cropland = arable land + permanent cropland), permanent grassland/grazing areas, other agricultural areas (such as for instance hedges), and agricultural land for which no details were available at all. For crop groups by land use type, see

Table 16. Aquaculture, forest, and grazed non-agricultural land were distinguished from “agricultural land” with a separate category, as were organic wild collection areas and beekeeping areas.

The land use information can be summarized by geographical region, as follows:

- Africa: Land use information was available for more than 90 percent of the organic agricultural land in Africa. Almost two-thirds of the agricultural land is used for permanent crops. The main permanent crops are cash crops, such as coffee and olives; among the main arable crops are cotton and oilseeds (sesame, soybeans, and peanuts). For land use details in Africa, see page 179.
- Asia: Land use details are known for over three-quarters of the organic agricultural land in Asia. Arable land is mainly used for cereals, including rice. Furthermore, dry pulses and textile crops are important. For land use details in Asia, see page 199.

¹ For some countries, only information on the main uses (arable crops, permanent crops, and permanent grassland) was available. For other countries, very detailed statistical land use information can be found.

² For more details, see the FAOSTAT homepage, faostat.fao.org: Home > Concepts and Definitions > Glossary, or <http://faostat.fao.org/site/379/DesktopDefault.aspx?PageID=379>

- Europe: In Europe, the agricultural land use is well known, and the main crop categories are well documented. Permanent pastures and arable land have almost equal shares of the organic agricultural area. Arable land is mainly used for the cultivation of cereals and by green fodder (2.5. million hectares and 2.4 million hectares respectively). Permanent crops account for thirteen percent of the organic agricultural land. More than one-third of this land was used for olives, followed by grapes, nuts, and temperate fruits. For land use details, see page 217.
- Latin America and the Caribbean: At least 60 percent of the organic agricultural land in Latin America is permanent pasture. Permanent crops account for 12 percent of the total organic agricultural area. More than 40 percent of the permanent cropland is used for coffee, followed by cocoa and tropical fruits. For details on land use in Latin America and the Caribbean, see page 206.
- North America: As in Europe, arable land and permanent grassland/grazing areas have almost equal shares. A major proportion of the arable land is used for cereal production and cultivation of green fodder. For details on land use in North America, see page 276.
- Oceania: Most of the land in Australia is used for extensive grassland/grazing. A wide range of permanent crops are grown in the Pacific region. For details, see page 294.

Distribution of main land use types by region 2017

Source: FiBL survey 2019

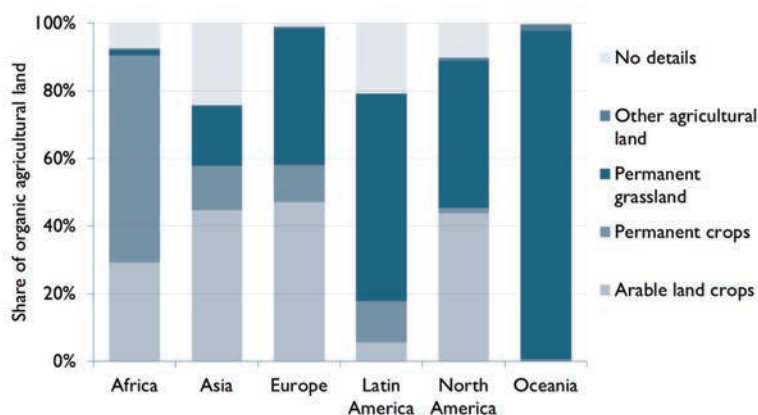


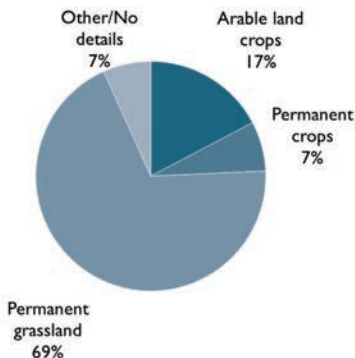
Figure 17: World: Distribution of main land use types by region 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

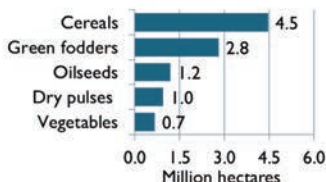
Distribution of main land use types and crop categories 2017

Source: FiBL survey 2019; based on information from the private sector, certifiers, and governments.

Land use types 2017



Key arable crops



Key permanent crops

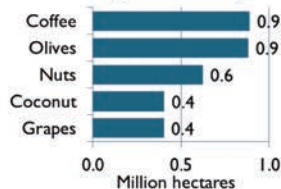


Figure 18: World: Distribution of main land use types and key crop categories 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Development of the organic land by land use type 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 1999-2019

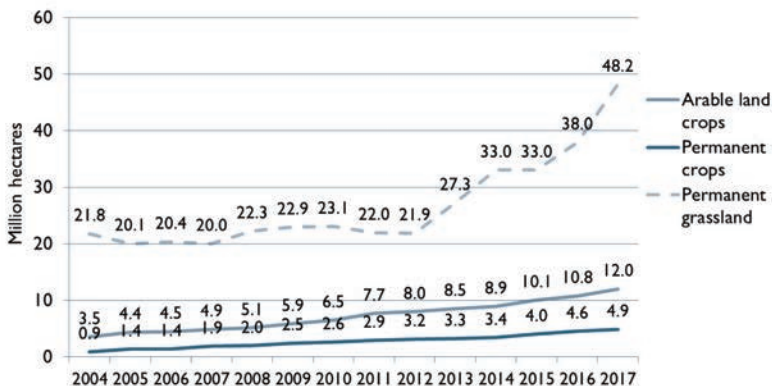


Figure 19: World: Development of organic arable land, permanent cropland and permanent grassland/grazing areas 2004-2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 15: World: Land use in organic agriculture by region (including in-conversion areas) 2017

Land use	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Arable crops	599'128	2'729'745	6'844'595	445'920	1'413'321	45'365	12'078'074
Permanent crops	1'262'392	808'946	1'606'370	979'665	50'679	167'681	4'875'733
Permanent grassland	30'618	1'081'677	5'889'242	4'900'113	1'400'964	34'891'784	48'194'399
World*	2'056'571	6'116'834	14'558'246	8'000'888	3'223'057	35'894'365	69'845'243

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 16: World: Land use and crop categories in organic agriculture worldwide 2017

Land use	Crop group	Area [ha]
Agricultural land and crops, no details	Agricultural land and crops, no details	4'697'037
Arable crops	Arable crops, no details	508'989
	Cereals	4'464'347
	Dry pulses	951'967
	Fallow land, crop rotation	497'849
	Flowers and ornamental plants	11'776
	Green fodders from arable land	2'811'795
	Hops	605
	Industrial crops	11'008
	Medicinal and aromatic plants	231'767
	Mushrooms and truffles	14'066
	Oilseeds	1'197'203
	Root crops	103'807
	Seeds and seedlings	1'164
	Strawberries	8'383
	Sugarcane	77'703
	Textile crops	503'782
	Tobacco	5'883
	Vegetables	675'980
Arable crops total		12'078'074
Permanent crops	Berries	63'543
	Citrus fruit	87'810
	Cocoa	384'118
	Coconut	405'843
	Coffee	890'943
	Flowers and ornamental plants, permanent	69
	Fruit, no details	142'942
	Fruit, temperate	204'382
	Fruit, tropical and subtropical	379'699
	Grapes	403'047
	Medicinal and aromatic plants, permanent	80'168
	Nurseries	736
	Nuts	624'850
	Olives	882'899
	Tea/mate, etc.	143'662
	Permanent crops, no details	181'023
Permanent crops total		4'875'733
Permanent grassland		48'194'399
World*		69'845'243

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331. *Totals include other agricultural areas, land for which no details were available, and correction values for some countries for land with double cropping during one year.

Arable land

With a total of almost 12.1 million hectares, organic arable land constitutes 17 percent of the world's organic agricultural land and 0.8 of the world's arable cropland.¹

An increase of 11.7 percent over 2016 was reported, and there was an increase in most crop categories. However, some categories such as industrial crops and oilseeds reported a drop (Table 17).

Almost 60 percent of the arable land is located in Europe, followed by Asia (22 percent), and North America (12 percent) (Figure 20). Most of the arable cropland is used for cereals including rice (4.5 million hectares), green fodder (2.8 million hectares), and oilseeds (1.2 million hectares) (Figure 21 and Table 17).

Table 17: Use of organic arable land (including in-conversion areas), 2016 and 2017 compared

Crop group	2016 [ha]	2017 [ha]	Change 2016-2017[ha]	Organic share [%]
Cereals	4'187'874	4'464'347	+276'473	0.6%
Dry pulses	543'630	951'967	+408'337	1.2%
Flowers and ornamental plants	13'967	11'776	-2'191	-
Green fodders from arable land	2'775'400	2'811'795	+36'394	-
Hops	616	605	-12	0.7%
Industrial crops	16'204	11'008	-5'196	-
Medicinal and aromatic plants	182'579	231'767	+49'188	12.9%
Mushrooms and truffles	7'678	14'066	+6'388	-
Oilseeds	1'369'745	1'197'203	-172'542	0.5%
Root crops	90'286	103'807	+13'521	0.2%
Strawberries	9'187	8'383	-803	2.1%
Sugarcane	82'983	77'703	-5'280	0.3%
Textile crops	495'773	503'782	+8'008	1.5%
Tobacco	5'975	5'883	-92	0.2%
Vegetables	441'493	675'980	+234'488	1.1%
World*	10'816'374	12'078'074	1'261'701	0.8%

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Not all countries included in the FiBL survey provided data on land use or crop areas.

*Total includes arable crop groups for which no further details were available, data for fallow land, some minor or not specified crop groups.

¹ There were 1'453'166'930 hectares of arable cropland in 2016, according to FAOSTAT, FAO, Rome. See the FAO Homepage at www.fao.org/faostat/en/#data > Inputs > Land > www.fao.org/faostat/en/#data/RL

Distribution of organic arable cropland by region 2017

Source: FiBL survey 2019

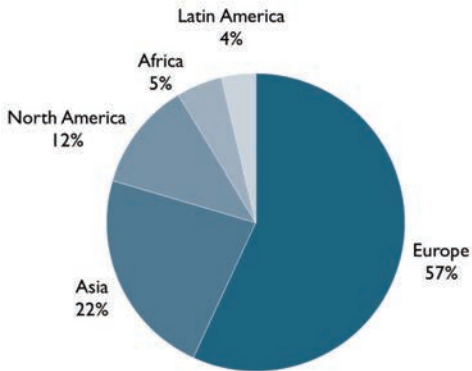


Figure 20: World: Distribution of organic arable cropland by region 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Use of organic arable cropland by crop group 2017

Source: FiBL survey 2019

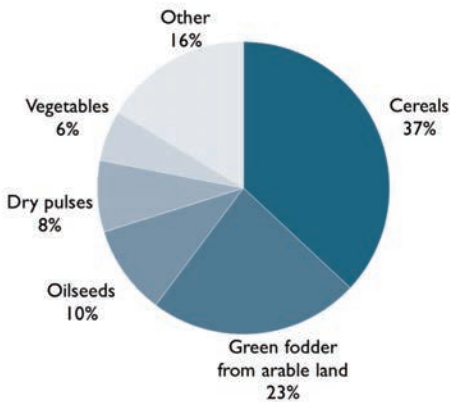


Figure 21: World: Use of arable cropland by crop group 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Permanent crops

Permanent crops account for nearly 4.9 million hectares, which is 2.9 percent of the world's permanent cropland.¹ Compared with 2016, an increase of more than 305'000 hectares, or 7 percent, was reported. Seven percent of the organic agricultural land is permanent cropland. Thus, permanent cropland has a higher share in organic agriculture than in total agriculture, where permanent crops account for slightly more than 3 percent of the total.

Most of the permanent cropland is in Europe (1.6 million hectares), followed by Africa (1.3 million hectares), and Latin America (almost 1 million hectares) (Table 15 and Figure 22). The most important crops are coffee, with nearly 0.9 million hectares and olives (nearly 0.9 million hectares), each constituting almost 20 percent of the organic permanent cropland, followed by nuts (0.6 million hectares), grapes (0.4 million hectares), and tropical and subtropical fruits (almost 0.4 million hectares) (Figure 23 and Table 18).

Table 18: Use of organic permanent cropland (including in-conversion areas), 2016 and 2017 compared

Crop group	2016 [ha]	2017 [ha]	Change 2016-2017 [ha]	Organic share [%]
Berries	57'311	63'543	+6'233	11.9%
Citrus fruit	90'694	87'810	-2'884	0.9%
Cocoa	344'666	384'118	+39'452	3.8%
Coconut	349'355	405'843	+56'488	3.3%
Coffee	933'950	890'943	-43'007	8.1%
Flowers and ornamental plants, permanent	71	69	-2	-
Fruit, no details	4'911	142'942	+138'031	2.5%
Fruit, temperate	251'387	204'382	-47'005	1.6%
Fruit, tropical and subtropical	356'276	379'699	+23'423	1.5%
Grapes	385'337	403'047	+17'709	5.7%
Medicinal and aromatic plants, permanent	101'005	80'168	-20'837	2.7%
Nurseries	26'780	736	-26'044	-
Nuts	575'136	624'850	+49'713	4.7%
Olives	747'640	882'899	+135'259	8.3%
Tea/mate, etc.	107'910	143'662	+35'752	3.3%
World*	4'569'930	4'875'733	+305'803	2.9%

Source: FiBL survey 2019, based on data from governments, the private sector, and certifiers. For detailed data sources see annex, page 33 |

*Total includes permanent crop groups, for which no further details were available.

¹ There were 166'200'710 hectares of permanent cropland in 2016 according to FAOSTAT, FAO, Rome. See the FAO Homepage at www.fao.org/faostat/en/#data > Inputs > Land > www.fao.org/faostat/en/#data/RL

Distribution of organic permanent cropland by region 2017

Source: FiBL survey 2019

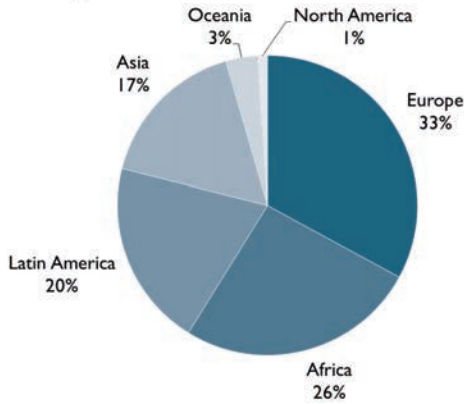


Figure 22: World: Distribution of permanent cropland by region 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Use of permanent cropland by crop group 2017

Source: FiBL survey 2019

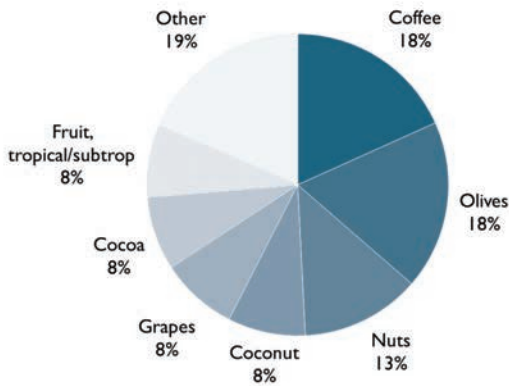


Figure 23: World: Use of permanent cropland by crop group 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Wild collection and beekeeping areas

The collection of wild harvested crops is defined in the IFOAM Norms (IFOAM 2014), and wild collection activities are regulated by organic laws. A collection area (including beekeeping) of nearly 41 million hectares was reported in 2017. The organic wild collection areas are concentrated in Europe, Africa, Asia, and Latin America (Figure 24 and Table 19); the distribution is thus quite different from that of the organic agricultural land.

The countries with the largest areas are Finland (mainly berries), followed by Zambia and the United Republic of Tanzania (beekeeping) (Figure 25). According to experts, wild berries, apiculture, and medicinal and aromatic plants, as well as shea nuts in Africa and Brazil nuts in Latin America, play the most important roles (Table 20). Unfortunately, for most of the wild collection areas, no details are available.

Table 19: Wild collection and beekeeping areas by region 2016 and 2017 compared

Region	2016 [ha]	2017 [ha]	Change 2016-2017 [ha]	Change 2016-2017 [%]
Africa	12'119'609	14'326'981	+2'207'372	+18.2%
Asia	6'259'421	4'410'796	-1'848'625	-29.5%
Europe	17'275'840	17'970'660	+694'820	+4.0%
Latin America	4'194'720	4'201'829	+7'109	+0.2%
North America	79'855	83'832	+3'977	+5.0%
Oceania	765	769	+4	+0.6%
World	39'930'210	40'994'867	+1'064'656	+2.7%

Source: FiBL survey 2019, based on data from governments, the private sector, and certifiers.
For detailed data sources see annex, page 331

Table 20: Wild collection and beekeeping areas by crop group 2017

Land use	Area [ha]
Apiculture	8'318'212
Berries, wild	95'713
Fruit, wild	1'225'423
Medicinal and aromatic plants, wild	4'510'436
Mushrooms, wild	48'158
Nuts, wild	1'237'861
Oil plants, wild	736'918
Palm sugar	541
Palmito, wild	67'867
Rose hips, wild	187'999
Seaweed	201'985
Wild collection, no details	24'363'754
World	40'994'867

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. Total includes areas, for which no details were available. For detailed data sources see annex, page 331

Distribution of organic wild collection and beekeeping areas by region 2017

Source: FiBL survey 2019

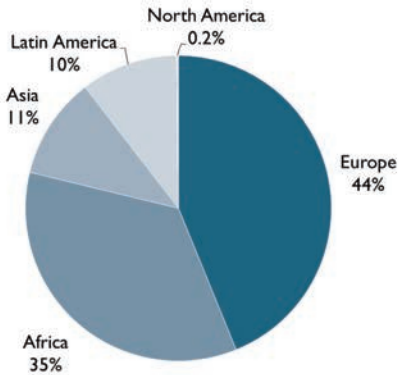


Figure 24: World: Distribution of organic wild collection and beekeeping areas by region in 2017

Source: FiBL survey 2019, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 331

The ten countries with the largest wild collection and beekeeping areas 2017

Source: FiBL survey 2019

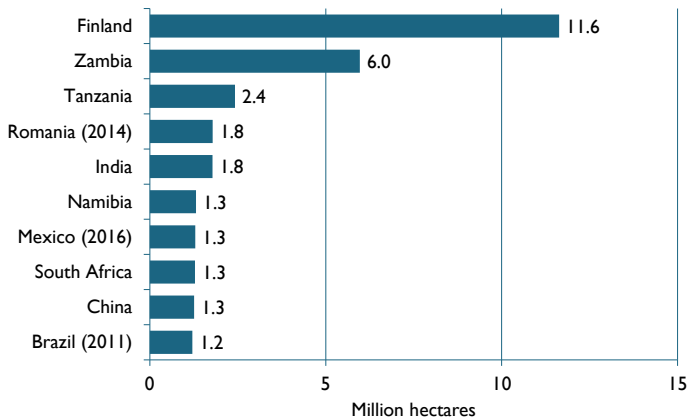


Figure 25: World: The ten countries with the largest organic wild collection and beekeeping areas in 2017

Source: FiBL survey 2019, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 331

Table 21: Wild collection and beekeeping areas by country 2017

Country	Land use	Area [ha]	Country	Land use	Area [ha]
Albania	Medicinal plants, wild	679'842		details	
	Nuts, wild	2'854	Denmark	Wild collection, no details	2'648
Algeria	Wild collection, no details	628	Ecuador	Mushrooms, wild	330
Argentina	Apiculture	318'369	Egypt	Wild collection, no details	60'000
	Wild collection, no details	1'001	Estonia	Wild collection, no details	260'662
Armenia	Wild collection, no details	4'820	Ethiopia	Apiculture	116
Azerbaijan	Berries, wild	161		Wild collection, no details	8'917
	Fruit, wild	541	Faroe Islands	Wild collection, no details	0
	Medicinal plants, wild	56	Fiji	Fruit, wild	653
	Nuts, wild	179	Finland	Wild collection, no details	11'631'680
	Wild collection, no details	126	French Polynesia	Apiculture	4
Belgium	Wild collection, no details	3	Georgia	Wild collection, no details	215
Benin	Nuts, wild	722	Ghana	Nuts, wild	55'827
	Wild collection, no details	2'978		Wild collection, no details	60'147
Bhutan	Medicinal plants, wild	15'787	Greece	Wild collection, no details	317'053
Bolivia	Nuts, wild	922'991	Guatemala	Apiculture	5
Bosnia and Herzegovina	Berries, wild	2'030	Guinea	Nuts, wild	1'000
	Medicinal plants, wild	103'575	Guyana	Palmito, wild	58'000
	Mushrooms, wild	45'000	Iceland	Seaweed	200'032
Brazil	Wild collection, no details	1'209'773		Wild collection, no details	11
Bulgaria	Wild collection, no details	307'020	India	Wild collection, no details	1'780'000
Burkina Faso	Fruit, wild	15'000	Indonesia	Apiculture	16'703
	Medicinal plants, wild	1'500		Oil plants, wild	303
	Nuts, wild	198'257		Palm sugar	541
	Wild collection, no details	17'008		Seaweed	136
Cambodia	Wild collection, no details	4'330		Wild collection, no details	585
Cameroon	Apiculture	47'000	Iran	Apiculture	39'564
Canada	Wild collection, no details	83'493		Wild collection, no details	10'655
Chad	Wild collection, no details	124'130	Italy	Wild collection, no details	259'878
Chile	Berries, wild	93'083	Jamaica	Wild collection, no details	36
	Rose hips, wild	60'389	Kazakhstan	Medicinal plants, wild	863
	Wild collection, no details	1'470	Kenya	Apiculture	121'625
China	Wild collection, no details	1'260'000		Wild collection, no details	29'800
Colombia	Palmito, wild	6'800	Kosovo	Wild collection, no details	179'580
	Wild collection, no details	520	Kyrgyzstan	Rose hips, wild	10
Comoros	Oil plants, wild	63	Lao P.D.R.	Wild collection, no details	17'068
Côte d'Ivoire	Nuts, wild	1'060	Lebanon	Wild collection, no details	209
Croatia	Wild collection, no	7	Lesotho	Wild collection, no details	1

Country	Land use	Area [ha]
Macedonia, FYROM	Medicinal plants, wild	1'113'200
	Wild collection, no details	50'990
Madagascar	Wild collection, no details	15'500
Malawi	Wild collection, no details	6'319
Malaysia	Mushrooms, wild	1'115
Mali	Nuts, wild	8'690
Mauritania	Wild collection, no details	2'800
Mexico	Apiculture	90'000
	Fruit, wild	1'200'000
	Mushrooms, wild	1'602
	Seaweed	500
	Wild collection, no details	204
Moldova	Wild collection, no details	424
Montenegro	Wild collection, no details	143'410
Morocco	Fruit, wild	4'367
	Medicinal plants, wild	142'512
	Oil plants, wild	31'692
	Wild collection, no details	1'820
Mozambique	Wild collection, no details	844'400
Namibia	Medicinal plants, wild	1'311'400
Nepal	Wild collection, no details	24'422
Nicaragua	Apiculture	11'463
Nigeria	Apiculture	1'000
Niue	Fruit, wild	112
Pakistan	Nuts, wild	44'620
Paraguay	Palmito, wild	3'067
Peru	Wild collection, no details	222'224
Philippines	Wild collection, no details	14
Portugal	Wild collection, no details	40'000
Romania	Wild collection, no details	1'787'548
Russian Federation	Nuts, wild	1'214
	Seaweed	1'317
	Wild collection, no details	28'460
Rwanda	Wild collection, no details	12
Senegal	Wild collection, no details	26'607
Serbia	Wild collection, no details	1'550
Sierra Leone	Apiculture	5'422
Slovenia	Wild collection, no details	13'238

Country	Land use	Area [ha]
Somalia	Wild collection, no details	807'300
South Africa	Apiculture	1'000
	Medicinal plants, wild	1'056'853
	Oil plants, wild	59
	Rose hips, wild	127'600
	Wild collection, no details	99'150
Spain	Wild collection, no details	38'184
Sudan	Wild collection, no details	173'913
Syrian Arab Republic	Wild collection, no details	8'000
Tajikistan	Wild collection, no details	1'055'890
Tanzania	Apiculture	2'403'700
	Wild collection, no details	15'040
Thailand	Wild collection, no details	117'560
Togo	Wild collection, no details	242
Tunisia	Wild collection, no details	25'486
Turkey	Berries, wild	100
	Fruit, wild	4'300
	Medicinal plants, wild	18'525
	Mushrooms, wild	111
	Nuts, wild	41
	Wild collection, no details	166'174
Uganda	Nuts, wild	406
	Wild collection, no details	157'922
Ukraine	Wild collection, no details	570'000
United States	Berries, wild	338
Uzbekistan	Wild collection, no details	5'000
Viet Nam	Medicinal plants, wild	1'323
Zambia	Apiculture	5'262'100
	Oil plants, wild	704'800
Zimbabwe	Apiculture	140
	Fruit, wild	450
	Medicinal plants, wild	65'000
	Wild collection, no details	277'500
World		40'994'867

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Beehives

There were over 3.2 million organic beehives in 2017, representing almost 3.5 percent of the world's beehives.¹ Organic beehives are concentrated in Latin America (45 percent) and Europe (30 percent) (Figure 26). The country with the largest number of organic beehives is Brazil (898'640), followed by Zambia (388'067), and Mexico (368'000). Their numbers have increased almost six-fold since 2007, when over 535'000 beehives were reported (Figure 27). However, it is important to note that some of the increases can be attributed to the continually improving data availability. The large increase from 2014 to 2015 is due to the fact that data for some countries such as Brazil was available for the first time. In addition, the growth between 2016 and 2017 is due to a significant increase of the beehives in Brazil, China, and Zambia.

It is expected that organic beekeeping will continue to grow worldwide thanks to the increasing demand for organic honey and bee products. One of the main challenges for new organic beekeepers is the conversion process due to the lack of access to knowledge on organic beekeeping practices and the organic certification process. Furthermore, the production of good quality organic honey and the control of the Varroa parasite with organic methods are major obstacles for organic beekeepers.

In 2015, FiBL, Naturland, Demeter, and Apicon created a new beekeeping platform, the IFOAM Apiculture Forum (IAF).² The IAF is a self-organised structure of IFOAM - Organics International with the aim to advance the development of organic beekeeping and to encourage the traditional practices employed by sustainable beekeeping. IAF will organize the 5th International Conference on Organic Apiculture in Stuttgart-Hohenheim (1-3 March 2019)³ together with the University of Hohenheim. Beekeepers, scientists, and experts will meet to discuss beekeeping and honeybees in the context of social, economic and environmental challenges. The first day will focus on social and political developments, the second on the health of the bee colony, and on the third day, the conference will focus on apitherapy and the quality of bee products.

¹ According to FAO, there were 90'999'730 beehives in 2017. The FAOSTAT website > Production > Live animals at <http://www.fao.org/faostat/en/#data/QA>

² For more information about the IFOAM Apiculture Forum, please visit www.ifoambeekeeping.info

³ For more information about the conference, please visit <https://organicapis.uni-hohenheim.de/en>

Distribution of organic beehives by region 2017

Source: FiBL survey 2019

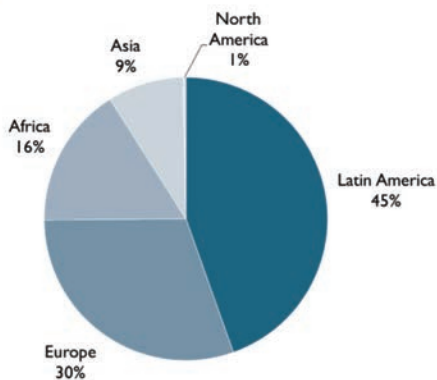


Figure 26: World: Distribution of organic beehives by region in 2017

Source: FiBL survey 2019, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 331

Development of the organic beehives 2007-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

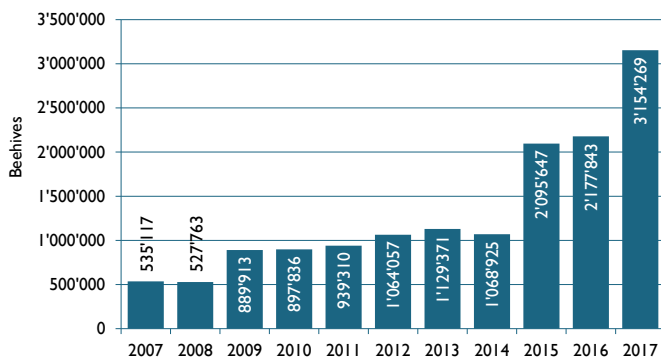


Figure 27: World: Development of the organic beehives 2007-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019. For detailed data sources see annex, page 331

Table 22: Number of organic beehives by country 2017

Country	Beehives [no.]	Country	Beehives [no.]
Argentina	19'360	Saudi Arabia	1'517
Armenia	1'818	Senegal	32
Australia	6'475	Serbia	2'307
Austria	19'329	Slovakia	426
Azerbaijan	932	Slovenia	1'814
Belgium	24	South Africa	5
Bhutan	177	Spain	73'878
Bosnia and Herzegovina	293	Sweden	2'182
Brazil	898'640	Switzerland	45'435
Bulgaria	250'434	Thailand	27'337
Burkina Faso	11	Tunisia	893
Canada	10'199	Turkey	48'153
Chile	21'983	Ukraine	300
China	233'415	Uruguay	60'137
Croatia	1'721	Zambia	388'067
Cuba	2'342	Zimbabwe	700
Czech Republic	87	World	3'154'269
Denmark	277		
Dominican Republic	9'804		
Estonia	2'930		
Ethiopia	113'754		
Finland	4'079		
France	112'292		
French Guiana (France)	21		
Georgia	570		
Germany	35'000		
Guadeloupe (France)	36		
Guatemala	3'780		
Iran (Islamic Republic of)	4'640		
Iraq	2'000		
Italy	171'094		
Kosovo	40		
Latvia	25'863		
Lebanon	416		
Liechtenstein	1		
Lithuania	1'098		
Luxembourg	47		
Macedonia, FYROM	7'676		
Madagascar	904		
Martinique (France)	120		
Mexico	368'000		
Montenegro	2'375		
Morocco	1'242		
Nicaragua	18'620		
Norway	1'553		
Poland	2'434		
Portugal	55'522		
Réunion (France)	1'463		
Romania	86'195		

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Aquaculture

Naturland, a German organic certifier, first certified carp in Germany in 1995, and organic was the first Voluntary Sustainability Standard (VSS) to cover aquaculture production (Potts et al. 2016). In 2005, IFOAM – Organics International approved the final version of its aquaculture standard.

A production volume of nearly 620'000 metric tons of organic aquaculture was reported in 2017. According to the available data, aquaculture production is concentrated in Asia (86 percent, mainly China) and Europe (14 percent). The largest production volume was found in China (526'500 metric tons), followed by Ireland (almost 41'000 metric tons, mainly blue mussel, salmon and oysters), and Norway (nearly 14'000 metric tons, primarily salmon) (Table 24 and Figure 28). The aquaculture production volume has increased by 49 percent compared to 2016, mainly to an increase in production in China and Viet Nam.

Unfortunately, some of the countries with a large aquaculture production, such as Brazil and Indonesia, did not provide data on organic aquaculture; so, it can be assumed that the organic aquaculture production volume is higher.

A breakdown by species was only available for 13 percent of the total production. According to the available data, organic salmon is the most produced species (over 36'000 metric tons), followed by mussels (19'400 metric tons), aquatic plants (9'000 metric tons), shrimps (almost 6'000 metric tons), and carp (over 5'600 metric tons).

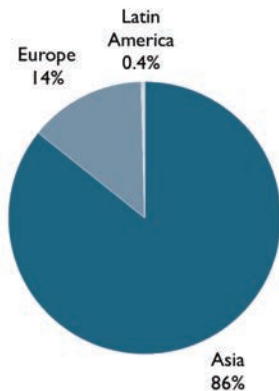
Table 23: Organic aquaculture: Production volume by species 2017

Main species	Production [MT]
Aquaculture, no details	539'687
Aquatic plants	9'016
Carps	5'670
Mussels	19'407
Rainbow trout	883
Salmon	36'146
Sea bass	122
Sea trout	150
Seabream	430
Shrimps	5'881
Sturgeon	1'745
Trout	687
Total	619'824

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Distribution of organic aquaculture production volume by region 2017

Source: FiBL survey 2019



The ten countries with the largest aquaculture production volume 2017

Source: FiBL survey 2019

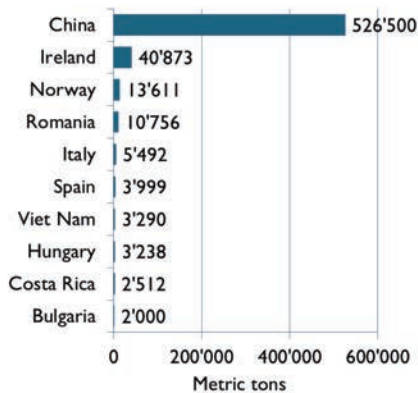
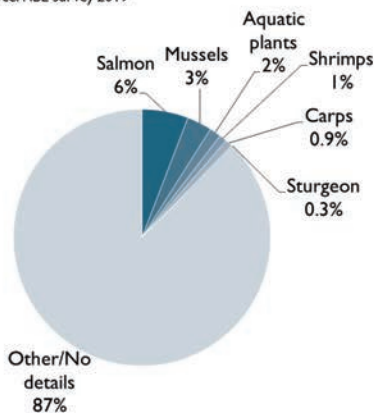


Figure 28: World: Organic aquaculture production volume: Distribution by continent and top 10 countries 2017

Source: FiBL-survey 2019; based on national data sources and certifier data. For detailed data sources see annex, page 331

Distribution of organic aquaculture production volume by species 2017

Source: FiBL survey 2019



Key organic aquaculture species by production volume 2017

Source: FiBL survey 2019

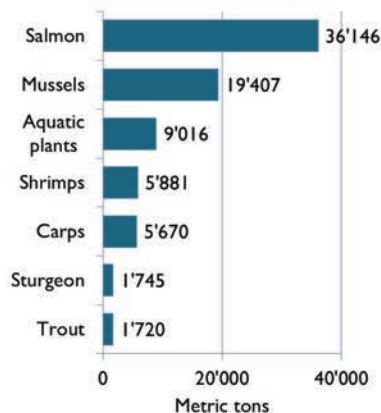


Figure 29: World: Organic aquaculture production volume: Distribution by species and key species 2017

Source: FiBL-survey 2019; based on national data sources and certifier data. For detailed data sources see annex, page 331

Table 24: Organic aquaculture: Production volume by country 2017

Country	Production [MT]
Austria	9
Brunei Darussalam	79
Bulgaria	2'000
China	526'500
Costa Rica	2'512
Croatia	135
Denmark	883
Ecuador	79
Estonia	156
Germany	270
Greece	1'495
Hungary	3'238
Ireland	40'873
Italy	5'492
Latvia	8
Lithuania	818
Norway	13'611
Poland	30
Portugal	1'100
Romania	10'756
Spain	3'999
Switzerland	370
Taiwan	50
Thailand	1'512
Turkey	559
Viet Nam	3'290
Total	619'824

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

References and further reading

- Bergleiter, S., Berner, N., Censkowsky, U. & Julià-Camprodon, G. (2009): Organic aquaculture 2009 – production and markets. Munich, Organic Services GmbH and Gräfelfing, Naturland e.V. 120 pp.
- Food and Agriculture Organization of the United Nations (FAO) (2010): Organic aquaculture: The future of expanding niche markets. Available at <http://www.fao.org/docrep/015/i2734e/i2734e04c.pdf>
- Potts, Jason; Wilkings, Ann; Lynch, Matthew; and McFatrige, Scott (Eds.) (2016): State of Sustainability Initiatives Review: Standards and The Blue Economy. International Institute for Sustainable Development, Manitoba, Canada. Available at <http://www.iisd.org/ssi/standards-and-the-blue-economy/>

Statistics on selected crops

In this section, some of the data on key crops and crop groups is presented, including area under organic management compared with the total area of the crops. FiBL collected land use and crop data for the first time in 2004; hence, the development graphs show the growth since that year.

It should be noted that the organic areas are mainly compared with the area harvested in 2016 as provided by FAO. The data may not necessarily be directly comparable to the areas sown or planted as registered by the certification bodies.

In some cases, the area data may refer to mixed cropping areas or to agroforestry areas in the case of tropical fruit, where the provided crop surfaces are the total surface of the agroforestry system, including shade trees and other crops. This should be kept in mind when comparing the organic crop area to the overall area for a certain crop, particularly in the case of tropical crops.

Data on conversion status: For some countries, data were collated from several certifiers, some of which provided information on the conversion status while others did not. Therefore, the sum of land under conversion and the fully converted land is not necessarily the same as the total land under organic agricultural management.

The tables presented in this section are only part of the information available in the FiBL database, which is available at statistics.fibl.org.

Furthermore, at www.organic-world.net additional slides on key crops with more graphs than shown here are available.

Table 25: World: Selected key crop groups and crops area in organic agriculture 2017 (overview including conversion areas)

Crop	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Cereals	66'063	1'127'835	2'708'807	153'642	545'707	41'293	4'464'347
Citrus fruit	7'151	5'018	55'081	15'641	4'919		87'810
Cocoa	149'535	2'232		230'416		1'936	384'118
Coffee	373'444	81'674		421'919	87	13'819	890'943
Dry pulses	52'992	363'269	442'863	16'175	76'669		951'967
Fruit, temperate	78	44'644	134'038	13'052	12'570		204'382
Fruit, tropical and subtropical	76'303	70'821	38'146	186'947	3'519	3'963	379'699
Grapes	4'651	27'213	340'038	11'973	11'669	7'503	403'047
Oilseeds	236'419	341'397	449'439	51'910	118'039		1'197'203
Olives	257'089	6'501	592'647	25'944	719		882'899
Vegetables	35'811	287'430	172'792	106'042	70'000	3'905	675'980

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

› Cereals

Table 26 shows that at least 4.5 million hectares of cereals were under organic management in 2017. Comparing the organic figure with FAO's figure for the world's harvested cereal area of 718 million hectares in 2016 (FAOSTAT),¹ 0.6 percent of the total cereal area is under organic management.

Cereals include wheat, spelt, barley, oats, grain maize, rice, rye, Andean grains, and triticale (Figure 31).

The key cereal producers worldwide, according to FAO, are India (98.5 million hectares), China (96.3 million hectares), the United States (58.5 million hectares), and the Russian Federation (44.4 million hectares). Of these four countries, information on the organic cereal area was available for all except India, and for the Russian Federation data is not complete, so it can be assumed that the cereal area is larger than what is shown here.

China (over 900'000 hectares), Italy (more than 300'000 hectares), and the United States (over 281'000 hectares) are the largest organic cereal producers. In China, 0.9 percent of the total cereal area was organic, and in Italy, the organic cereal area represented 9.4 percent of the total cereal area, one of the highest organic shares.

Some countries reach organic shares that are far higher than the global organic cereal share of 0.6 percent. For example, Austria (14.6 percent), Sweden (11.4 percent), Estonia (11.1 percent), Italy, and Switzerland (7.6 percent each) greatly exceed the global share.

The organic cereal area has more than trebled since 2004 (1.3 million hectares), and in 2017, it increased by nearly 280'000 hectares or 6 percent.

The available data on the conversion status indicates that almost 20 percent of the organic cereal area was in conversion in 2017 (over 835'000 hectares). Thus, there could be a considerable increase in the supply of organic cereals in the near future.

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC](http://www.fao.org/faostat/Data/Crops)

**Cereals: Development of the global organic area
2004-2017**

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

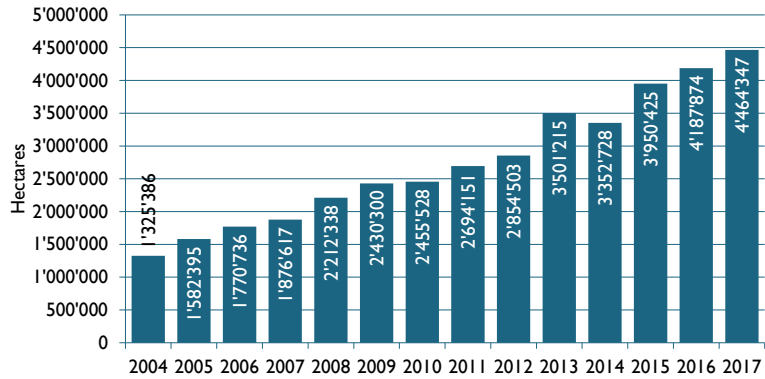


Figure 30: Cereals: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL 2006-2019

**Cereals: Distribution of global organic area by cereal
type 2017**

Source: FiBL survey 2019

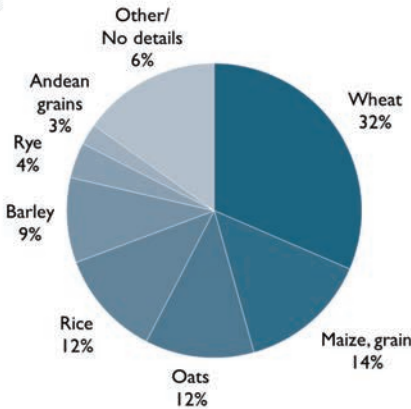


Figure 31: Cereals: Distribution of global organic area by cereal type 2017

Source: FiBL survey 2019

Table 26: Cereals: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	18'253	0.1%		
Australia	41'293	0.2%		
Austria	114'690	14.6%		
Azerbaijan	1'598	0.2%		1'598
Bangladesh	101	0.001%		
Belgium	11'474	3.5%	8'736	2'737
Bhutan	493	1.0%	493	
Bolivia	87'545	6.9%	72'981	14'564
Bosnia and Herzegovina	105	0.03%	105	
Bulgaria	16'602	0.9%	6'192	10'409
Burkina Faso	117	0.003%		
Cambodia	10'745	0.4%	2'612	841
Canada	264'491	1.9%	264'491	
China	905'000	0.9%	591'000	314'000
Colombia	100	0.01%	98	2
Costa Rica	81	0.2%		
Croatia	11'327	2.1%	6'717	4'610
Cyprus	832	3.4%	575	257
Czech Republic	29'483	2.2%	24'243	5'240
Denmark	71'248	4.8%	52'323	18'926
Ecuador	1'538	0.2%	1'194	344
Egypt	8'040	0.2%	8'040	
Estonia	39'111	11.1%	31'600	7'511
Finland	57'512	5.8%	57'512	
France	236'267	2.5%	147'761	88'506
Germany	270'000	4.3%		
Greece	59'091	5.6%	33'816	25'274
Hungary	32'320	1.2%	21'151	11'169
Iceland	30	-	30	
Indonesia	53'826	0.3%	75	1
Iran	522	0.01%	510	12
Ireland	1'603	0.6%	1'526	77
Israel	556	0.9%	527	29
Italy	305'871	9.4%	215'405	90'466
Japan	2'825	0.2%	2'825	
Kazakhstan	65'347	0.4%	40'839	365
Kenya	486	0.02%	214	272
Kyrgyzstan	716	0.1%	505	211
Lao P.D.R.	4'598	0.4%		
Latvia	50'621	7.2%	40'833	9'789
Lebanon	35	0.1%	35	
Liechtenstein	97	-	78	19
Lithuania	96'673	7.3%	83'311	13'362
Luxembourg	1'167	4.2%	878	289
Macedonia, FYROM	946	0.6%	412	534
Madagascar	160	0.02%	160	
Mali	44	0.001%		
Malta	8	0.2%	7	1

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Mexico	40'105	0.4%	40'055	50
Moldova	20'097	2.2%	15'445	4'652
Montenegro	157	7.3%	83	74
Namibia	177	0.1%	144	33
Netherlands	3'422	2.0%	3'105	317
Nigeria	310	0.002%	60	250
Norway	7'042	2.5%	6'373	669
Pakistan	23'217	0.2%	20'827	2'390
Palestine, State of	80	0.3%	36	44
Peru	6'019	0.5%	8	
Philippines	554	0.01%	508	
Poland	116'083	1.6%	86'981	29'102
Portugal	5'887	2.3%	5'131	756
Republic of Korea	1'686	0.2%		
Réunion (France)	0	0.01%	0	0
Romania	84'927	1.5%	45'366	39'561
Russian Federation	156'619	0.4%	45'089	1'500
Saudi Arabia	184	0.1%	174	10
Senegal	3'693	0.3%	113	3'576
Serbia	3'662	0.2%	2'148	1'514
Slovakia	18'047	2.4%	15'679	2'368
Slovenia	2'235	2.2%	1'929	306
South Africa	630	0.02%	550	80
Spain	206'119	3.3%	160'597	45'523
Sweden	114'656	11.4%	96'070	18'586
Switzerland	10'992	7.6%		
Taiwan	1'780	0.6%	1'780	
Tanzania	50'860	0.8%		
Thailand	32'774	0.3%		
Tunisia	485	0.1%		
Turkey	202'040	1.8%	162'783	39'257
Ukraine	133'440	1.0%		
United Arab Emirates	2	1.0%	2	
United Kingdom	37'306	1.2%	35'331	1'975
United States	281'215	0.5%		
Viet Nam	21'197	0.2%	608	20'589
Zambia	373	0.03%	245	
Zimbabwe	689	0.04%	280	409
World	4'464'347	0.6%	2'467'311	835'006

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Blank cells: No data available.

› Citrus fruit

Almost 88'000 hectares of citrus fruits were grown organically worldwide in 2017. This constitutes 0.9 percent of the world's total citrus area of 9.4 million hectares in 2016 (FAOSTAT).¹ As no crop details for the organic area were available for some of the world's leading citrus producers - India (0.9 million hectares) and Brazil (0.8 million hectares according to FAOSTAT), it can be assumed that the global figure for the organic citrus area is higher.

In organic agriculture, the largest producer is Italy with nearly 40'000 hectares, constituting 27 percent of Italy's harvested citrus fruit area, followed by Mexico (almost 13'000 hectares, 2.2 percent), Spain (over 12'000 hectares, 3.3 percent), and the United States (almost 5'000 hectares, 1.6 percent). Since 2004, when 28'500 hectares of organic citrus were grown, the area trebled. In 2017, the organic citrus area dropped by 3.2 percent (Figure 32). Italy has the highest organic share of the total citrus fruit area. It is followed by Ghana (15.2 percent) and France (8.7 percent).

The area of organic citrus fruits shown in Table 27 includes oranges (48 percent of the organic citrus fruit), lemons and limes (21 percent), grapefruit and pomelos (5 percent), and tangerines (3 percent); for 23 percent of the organic citrus area, no crop detail was available.

The available data on the conversion status indicates that at least 27 percent of the organic citrus area was in conversion in 2017 (more than 23'000 hectares).

The area of organic citrus fruit continues to drop due to the spread of the Citrus Greening Disease that is transmitted by the vector Asian Citrus Psyllid, *Diaphorina citri*, and the African Citrus Psyllid, *Trioza erytreae*. In Latin America and the United States, the Greening Disease has caused significant losses. The Greening Disease continues to spread despite the use of chemical pesticides. Reports suggest that more than 90 percent of citrus area in Florida are infested. Cuban citrus fruits are infected to the point that there is almost no organic citrus fruit production and no exports of organic orange and grapefruit juices. Costa Rica, Honduras, Belize and the Dominican Republic have abandoned organic orange production and reverted to conventional farming, where chemical pesticides are used to control the disease. Currently, the African Citrus Psyllid is spreading in Portugal (Lisboa Region) and Spain (Galicia) and the Asian Citrus Psyllid has spread up to the San Francisco bay area.

New strategies, such as spraying plant hormones or infra-red energy pulses will increase the use of chemicals in citrus orchards and therefore increasingly disrupt the eco-functionality of the agroecosystem. Since 2011, FiBL has been developing an integrated organic management strategy in Mexico (a key organic citrus producer) to control the vector and regulate the greening. Results show that the higher plant

¹ FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > <http://www.fao.org/faostat/en/#data/QC>

biodiversity from natural groundcovers under organic citrus trees reduce the population of Asian Citrus Psyllid seven times more than herbicides and chemical insecticides in conventional orchards. Under organic conditions, beneficial insects, such as ladybugs, are less likely to be killed. The project focuses on the following managing strategies: how to manage ground cover in order to maintain flowers in the orchards and promote beneficial insects throughout the entire season; how to use biological control, such as fungi and parasitoids against the vector; and how to induce tree resistance through adequate plant nutrition by using biochar, leguminous and organic fertilizers. This project is financed by the Coop Sustainability Fund, Switzerland.

Citrus fruit: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

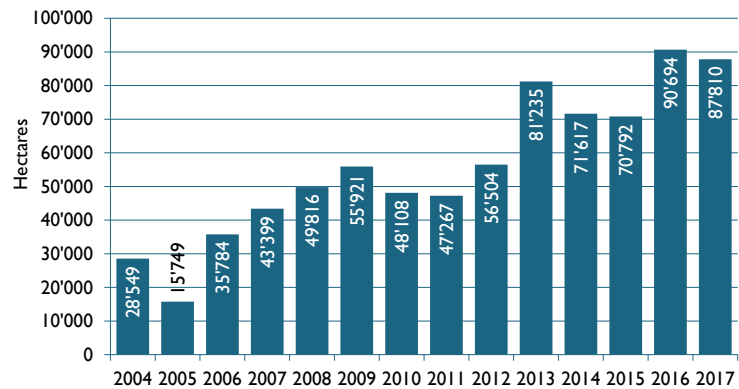


Figure 32: Citrus fruit: Development of the global organic area 2004-2017

Source: FiBL survey 2019

Table 27: Citrus fruit: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	1'011	0.7%	1'011	
Azerbaijan	21	0.7%	2	19
Benin	2	0.03%		
Cameroon	1	-		
Chile	133	0.7%		
China	4'100	0.2%	800	3'300
Colombia	3	0.004%	2	1
Comoros	55	-	55	
Costa Rica	1	0.002%		
Croatia	14	0.6%	9	5
Cuba	167	1.0%		
Cyprus	80	3.2%	48	32
Dominican Republic	262	1.6%	237	25
Ecuador	572	1.7%	530	42
Egypt	1'190	0.6%	1'190	
France	409	8.7%	271	138
Gambia	11	-		
Ghana	3'803	15.2%	270	
Greece	1'811	3.3%	1'087	724
Indonesia	0.3	0.0004%		
Iran	583	0.3%	4	579
Israel	220	1.1%	160	59
Italy	39'656	27.0%	31'861	7'795
Jordan	13	0.2%		
Lebanon	20	0.2%	9	11
Madagascar	17	0.1%	17	
Malta	1	0.5%	1	0
Mexico	12'570	2.2%	7'900	4'670
Morocco	1'248	1.0%		
Nigeria	2	0.0002%		2
Palestine, State of	1	0.1%	1	
Paraguay	846	7.6%	573	273
Peru	75	0.1%	56	
Portugal	264	1.3%	181	83
Republic of Korea	60	0.3%		
Senegal	17	0.2%	3	13
South Africa	806	1.2%	180	
Spain	12'088	3.3%	6'924	5'164
Turkey	759	0.6%	262	497
United Arab Emirates	0.2	0.1%	0	
United States	4'919	1.6%		
World	87'810	0.9%	53'646	23'432

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331. Blank cells: No data available.

› Cocoa beans

Over 384'000 hectares of cocoa were under organic management in 2017. This constitutes 3.8 percent of the world's harvested cocoa bean area of 10.2 million hectares 2016 (FAOSTAT).¹

The world's leading producers are Côte d'Ivoire (2.8 million hectares), Indonesia (1.7 million hectares), Ghana (1.7 million hectares), and Nigeria (0.8 million hectares). The largest organic cocoa areas are found in the Dominican Republic (159'178 hectares), the Democratic Republic of Congo (51'905 hectares), and Sierra Leone (43'307 hectares). More than 60 percent of the world's organic cocoa area is in Latin America, and nearly 40 percent is in Africa.

Some countries have when compared with the FAO data on harvested area, very high organic shares. This can probably be attributed to the fact that FAO data might be incomplete. The organic cocoa area has grown over eight-fold since 2004. However, part of the increase can be attributed to the continually improving data availability. In 2017, over 39'000 hectares more were reported, an increase of 11.4 percent compared to 2016. The available data on the conversion status indicates that four percent of the organic cocoa area was in conversion in 2017 (over 16'000 hectares). Thus, a slight increase in the supply of organic cocoa may be expected in the near future.

Cocoa beans: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

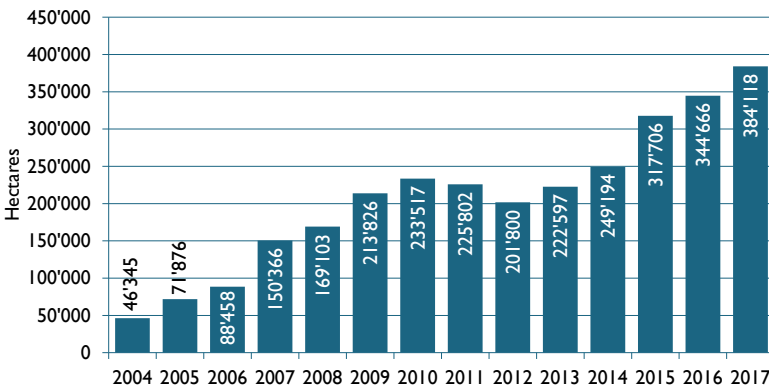


Figure 33: Cocoa beans: Development of the global organic area 2004-2017

Source: FiBL survey 2019

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops](http://www.fao.org/faostat/Data/Crops) > <http://www.fao.org/faostat/en/#data/QC>

Table 28: Cocoa beans: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Belize	380	40.1%	340	40
Benin	1	-		
Bolivia	4'595	44.6%	3'976	619
Cameroon	523	0.1%		
Colombia	381	0.2%	370	11
Congo, D.R.	51'905	-	50'852	1'053
Costa Rica	1'611	40.3%		
Côte d'Ivoire	2'248	0.1%	901	
Dominican Republic	159'178	92.0%	153'178	6'000
Ecuador	15'217	3.3%	12'739	2'478
El Salvador	2	0.2%		2
Ghana	5'878	0.3%	5'259	620
Grenada	65	5.2%		
Haiti	4'182	15.5%	4'182	
Honduras	753	39.9%		
Indonesia	1'447	0.1%	1'369	30
Madagascar	3'407	25.9%	3'407	
Mexico	779	1.3%	779	
Nicaragua	3'666	39.4%	1'521	2'146
Nigeria	700	0.1%		700
Panama	14'021	-	4'224	436
Papua New Guinea	384	0.3%	384	
Peru	25'587	20.4%		
Philippines	784	5.3%	785	
Sao Tome and Principe	6'215	24.1%	6'200	15
Sierra Leone	43'307	-	43'307	
Tanzania	14'948	-		
Togo	1'312	2.4%		
Uganda	19'092	32.7%	17'190	1'902
Vanuatu	1'552	44.1%	1'552	
World	384'118	3.8%	312'513	16'050

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Blank cells: No data available.

For more information on cocoa production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2018."¹

¹ Julia Lernoud, Jason Potts, Gregory Sampson, Bernhard Schlatter, Gabriel Huppe, Vivek Voora, Helga Willer and Joseph Wozniak (2018), The State of Sustainable Markets – Statistics and Emerging Trends 2018. ITC, Geneva. Available at: <http://www.vss.fibl.org/de/vss.html>

› Coffee

More than 890'000 hectares of coffee were grown organically in 2017. This constituted 8.1 percent of the world's harvested coffee area of almost 11 million hectares in 2016, according to FAOSTAT (2016 data).¹

The world's leading producers are Brazil (2 million hectares), Indonesia (1.2 million hectares), Côte d'Ivoire (1 million hectares), Colombia (0.9 million hectares), and Ethiopia (0.7 million hectares). Data on organic production was available for all of these countries with the exception of Brazil and Côte d'Ivoire. Slightly more than 45 percent of the world's organic coffee area is in Latin America, and 42 percent is in Africa.

In organic farming, the largest areas were in Mexico (231'000 hectares), Ethiopia (161'000 hectares), and Peru (110'000 hectares). Timor-Leste had the highest organic share, with over 58 percent organic coffee, followed by Bolivia (48 percent), the United Republic of Tanzania (37 percent), and Mexico (almost 36 percent). The organic coffee area has increased five-fold since 2004. Compared with 2016, the organic coffee area reported a drop of by 4.6 percent or almost 43'000 hectares in 2017.

Coffee: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

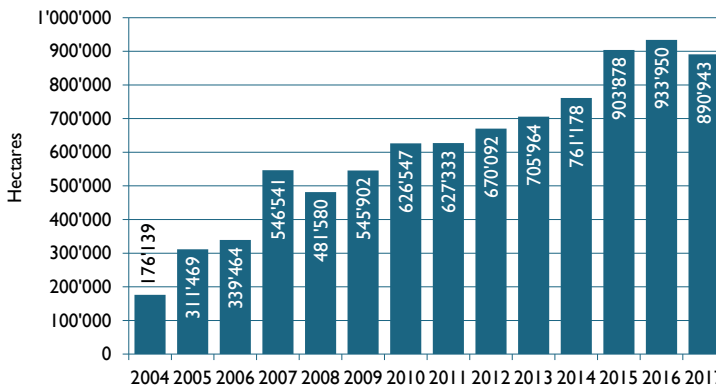


Figure 34: Coffee: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC](http://www.fao.org/faostat/Data/Crops)

Table 29: Coffee: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Bolivia	11'185	48.0%	9'709	1'476
Cameroon	203	0.2%		
Cape Verde	495	-	495	
Colombia	10'495	1.2%	7'973	2'523
Congo, D.R.	8'595	11.3%	8'595	
Costa Rica	486	0.6%		
Dominican Republic	10'419	13.2%	9'400	1'019
Ecuador	1'656	5.5%	1'578	78
El Salvador	1'470	1.1%	1'417	53
Ethiopia	161'113	23.0%	159'866	1'247
Fiji	300	-	300	
Guatemala	8'425	3.1%	6'925	1'500
Honduras	23'500	6.1%		
Indonesia	46'558	3.8%	44'640	23
Jamaica	2	0.03%		2
Kenya	3'825	3.4%	3'256	569
Lao P.D.R.	1'363	1.7%		
Madagascar	667	0.8%	667	
Malawi	114	2.7%		
Mexico	231'000	35.8%	231'000	
Myanmar	214	1.7%	214	0
Nepal	804	30.7%	804	
Nicaragua	12'257	10.2%	10'433	1'824
Panama	953	5.7%	227	
Papua New Guinea	11'407	21.0%	11'195	212
Peru	110'070	28.7%		
Philippines	281	0.2%	281	
Rwanda	577	1.6%	577	
Sao Tome and Principe	384	38.4%	384	
Sierra Leone	50'161	-	50'161	
Tanzania	81'740	36.9%		
Thailand	1'372	3.1%		
Timor-Leste	31'031	58.3%	31'031	
Uganda	65'570	17.1%		
United States	87	2.3%		
Vanuatu	2'112	-	2'112	
Viet Nam	50	0.01%		50
World	890'943	8.1%	593'241	10'575

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Blank cells: No data available.

For more information on coffee production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2018."¹

¹ Julia Lernoud, Jason Potts, Gregory Sampson, Bernhard Schlatter, Gabriel Huppe, Vivek Voora, Helga Willer and Joseph Wozniak (2018), The State of Sustainable Markets – Statistics and Emerging Trends 2018. ITC, Geneva. Available at: <http://www.vss.fibl.org/de/vss.html>

› Dry pulses¹

The total area under organic dry pulses is almost 952'000 hectares, which is 1.2 percent of the total area of dry pulses grown in the world (almost 82.4 million hectares in 2016, according to FAOSTAT).²

No current data on the organic area was available from the three most important dry pulse-growing countries in the world: India, Niger, and Myanmar. India (26 million hectares) was by far the largest grower, representing over 32 percent of the global area used to grow dry pulses.

The countries with the largest organic dry pulses areas are China (330'000 hectares), France (over 97'000 hectares), Canada (more than 61'000 hectares), the United Republic of Tanzania (almost 51'000 hectares), Italy (almost 50'000 hectares), and Poland (over 43'000 hectares). Overall, organic shares can be high as dry pulses play an important role in organic farming, particularly in Europe.

The dry pulses area has increased twelve-fold from 79'000 to almost 952'000 hectares since 2004. However, some of the increase can be attributed to the continually improving availability of crop data. In 2017, the dry pulses area grew by more than 408'000 hectares, or by almost 75 percent compared to 2016, mainly due to China that reported a large increase of its organic dry pulses area. A breakdown by crop is not available for many countries; for instance, Eurostat - the statistical office of the European Union - publishes only one figure for "dry pulses," without breaking that figure down by crop.

The data available for a breakdown of the total fully converted and in conversion area shows that nearly 20 percent is in conversion, and will be fully converted in the next few years. This has implications for the availability of organic dry pulses in the near future.

¹ In past editions of "The World of Organic Agriculture", this category was called "Protein crops". In order to harmonize nomenclature with Eurostat, we changed this to "Dry pulses."

² FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > <http://www.fao.org/faostat/en/#data/QC>

Dry pulses: Development 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

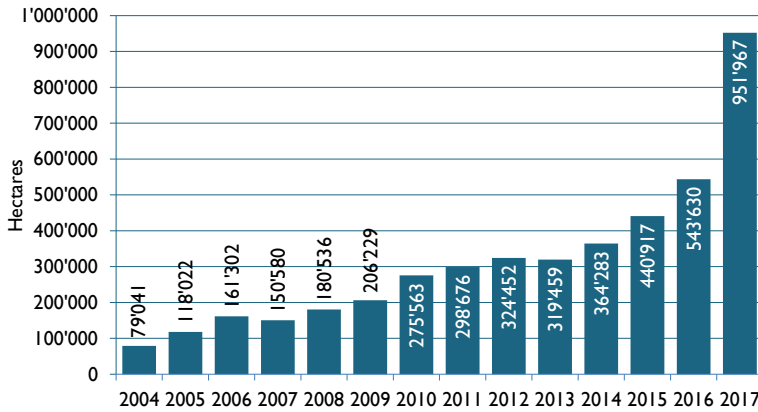


Figure 35: Dry pulses: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

Table 30: Dry pulses: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	1'504	0.3%	1'248	
Austria	14'138	57.0%		
Azerbaijan	6	0.1%	2	4
Belgium	416	23.9%	304	112
Benin	0	0.0003%		
Bosnia and Herzegovina	13	0.1%	13	0
Bulgaria	1'238	4.0%	422	816
Burkina Faso	4	0.0003%		
Canada	61'088	1.5%	61'088	
China	330'000	13.4%	255'000	75'000
Colombia	1	0.001%	1	
Croatia	76	2.3%	33	42
Czech Republic	3'455	9.2%	2'636	819
Denmark	8'076	51.4%	4'350	3'725
Ecuador	22	0.1%	15	7
Estonia	9'059	16.3%	6'636	2'423
Finland	5'371	-	5'371	
France	97'405	30.1%	63'755	33'650
Germany	40'000	25.3%		
Greece	17'868	64.3%	10'882	6'986
Hungary	2'395	7.7%	1'869	526
Ireland	200	1.6%	154	46
Israel	60	1.4%	60	
Italy	49'730	49.9%	36'214	13'516
Kazakhstan	32'726	9.6%	27'117	401
Kenya	215	0.01%	215	

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Kyrgyzstan	406	0.7%	6	0
Latvia	9'659	23.7%	7'852	1'807
Lithuania	26'235	11.2%	21'903	4'332
Luxembourg	91	13.3%	83	8
Madagascar	258	0.2%	258	
Malta	0	0.02%	0	
Mexico	14'644	0.9%	14'644	
Moldova	515	2.2%	230	285
Montenegro	0	0.1%		0
Namibia	36	0.2%	33	3
Netherlands	144	8.5%	142	2
Norway	136	5.5%	136	
Peru	3	0.002%	3	
Poland	43'373	14.5%	10'604	5'754
Portugal	1'493	29.2%	1'430	62
Republic of Korea	64	0.6%		
Romania	4'994	8.3%	2'755	2'239
Russian Federation	26'447	1.6%	15'521	234
Senegal	228	0.1%		228
Slovakia	1'132	9.4%	932	200
Slovenia	143	11.4%	125	18
South Africa	37	0.1%		
Spain	30'484	7.7%	23'065	7'419
Sweden	14'872	27.1%	11'698	3'174
Switzerland	1'576	29.7%		
Tanzania	50'853	2.4%		
Turkey	13'415	1.9%	8'821	4'593
Ukraine	14'450	4.5%		
United Arab Emirates	7	-	7	
United Kingdom	4'263	2.2%	4'185	78
United States	15'581	1.2%		
Zambia	30	0.05%		
Zimbabwe	1'331	3.3%	544	787
World	951'967	1.2%	602'364	169'295

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Blank cells: No data available.

› Fruit: Temperate fruit

The total area under organic temperate fruit production recorded here (over 204'000 hectares), is 1.6 percent of the total area of temperate fruit grown in the world (12.6 million hectares in 2016, according to FAOSTAT).¹

Of the seven most important temperate fruit growing countries in the world (China, Turkey, Iran, India, Russia, the United States, and Uzbekistan), five countries (China, Turkey, Iran, Russia,² and the United States) provided data on the area of organic temperate fruits in 2017. It can, therefore, be assumed that the organic temperate fruit area is higher.

The countries with the largest organic temperate fruit areas are Turkey (over 26'000 hectares), Italy (nearly 25'000 hectares), China (22'400 hectares), Pakistan (more than 18'000 hectares), France (16'700 hectares), and the United States (almost 12'000 hectares) (Table 32).

Since 2004, when data on land use and crops were collected for the first time, the temperate fruit area has more than doubled. However, some of the increase can be attributed to the continually improving crop data availability. In 2017, a drop of over 47'000 hectares occurred, this was mainly due to a decrease in China and Poland.

The key temperate fruits are apples, with 40 percent of the temperate fruit area, followed by pears, cherries, plums, and apricots (Table 31). The available data on the conversion status indicates that nearly 30 percent of the total temperate fruit area is in conversion. Thus, a considerable increase in the supply of organic temperate fruit in the near future.

Table 31: Temperate fruit: Organic area by crop 2017

Main crop	2017 [ha]	Change 2016-2017 [ha]	Organic share [%]
Apples	81'837	-1'147	1.5%
Apricots	14'792	-8'213	2.6%
Cherries	16'793	+846	2.6%
Peaches and nectarines, no details	12'385	+1'474	0.8%
Pears	20'664	+5'116	1.3%
Plums	16'371	+465	0.6%
Pome fruit, no details	1'152	-3	-
Quinces	167	+76	0.2%
Stone fruit, no details	1'844	-1'989	-
Total*	204'382	-47'005	1.6%

Source: FiBL survey 2019

*Total includes temperate fruit areas for which no details were available

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC](http://www.fao.org/faostat/Data/Crops)

² Please note that for Iran and Russia the data is incomplete as not all certifiers provided data on the crops.

Temperate fruit: Use of organic temperate fruit area 2017

Source: FiBL survey 2019

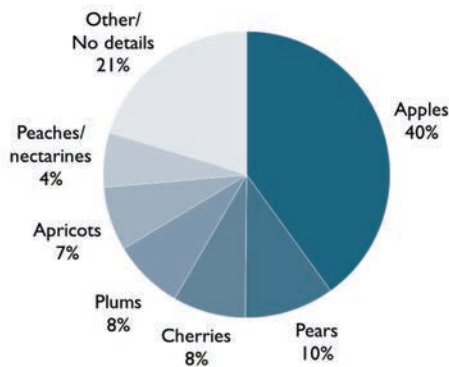


Figure 36: Temperate fruit: Use of organic temperate fruit area 2017

Source: FiBL survey 2019

Temperate Fruit: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

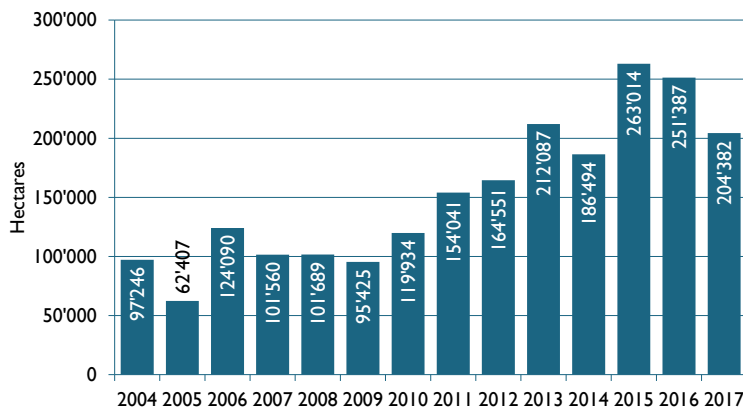


Figure 37: Temperate fruit: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

Table 32: Temperate fruit: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	123	0.8%		
Argentina	8'602	8.4%	540	
Austria	2'180	23.5%		
Azerbaijan	754	1.4%	112	642
Belgium	751	4.0%	469	282
Bosnia and Herzegovina	1	0.001%	1	0.2
Bulgaria	6'692	24.5%	2'374	4'318
Canada	900	4.4%	900	
Chile	2'332	2.2%		
China	22'400	0.4%	14'100	8'300
Colombia	1	0.02%		1
Croatia	1'960	12.3%	964	995
Cyprus	148	8.4%	88	60
Czech Republic	4'435	32.0%	3'561	874
Denmark	486	17.5%	366	120
Ecuador	1	0.01%	1	
Estonia	427	14.2%	372	55
Finland	70	9.6%	70	
France	16'707	16.5%	11'194	5'513
Georgia	855	2.6%	855	
Germany	7'514	16.8%		
Ghana	0.2	-	0.2	
Greece	875	1.0%	465	411
Hungary	4'396	6.6%	1'320	3'077
Iran	2	0.0004%	2	
Ireland	50	7.2%	50	
Israel	65	0.6%	65	
Italy	24'825	11.2%	16'601	8'224
Jordan	0.3	0.004%		
Kyrgyzstan	2'038	4.2%	2'038	
Latvia	1'309	43.3%	724	584
Lebanon	36	0.1%	18	18
Liechtenstein	2	-	2	
Lithuania	984	5.9%	829	155
Luxembourg	56	18.5%	42	13
Macedonia, FYROM	231	0.8%	90	141
Malta	0.3	0.4%	0.2	0.1
Mexico	1'349	1.3%	1'348	
Moldova	279	0.3%	279	
Montenegro	372	32.2%	66	305
Netherlands	479	2.7%	419	59
Norway	217	10.6%	165	52
Oman	4	-		
Pakistan	18'359	12.8%	12'754	5'605
Peru	768	4.1%	692	
Poland	10'574	4.3%	8'354	2'220
Portugal	1'699	4.2%	1'033	666
Republic of Korea	130	0.2%		

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Romania	6'500	4.8%	3'847	2'653
Russian Federation	51	0.01%		51
Serbia	2'080	1.5%	1'349	731
Slovakia	548	14.9%	455	93
Slovenia	325	10.0%	142	183
South Africa	77	0.1%		
Spain	6'189	3.1%	3'584	2'605
Sweden	257	14.8%	228	29
Switzerland	633	10.1%		
Turkey	26'073	5.2%	15'605	10'468
Ukraine	2'500	1.5%		
United Kingdom	1'041	5.3%	971	70
United States	11'670	4.1%		
World	204'382	1.6%	109'503	59'578

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Blank cells: No data available.

Further reading

Granatstein, David, Elizabeth Kirby, Harold Ostenson, and Helga Willer (2015) Global situation for organic tree fruits. *Scientia Horticulturae*. Available online 18 December 2015
doi:10.1016/j.scienta.2015.12.008

› Fruit: Tropical and subtropical fruit

The total area under organic tropical and subtropical fruit production recorded here (nearly 380'000 hectares) is 1.5 percent of the total area of tropical and subtropical fruit grown in the world (24.8 million hectares in 2016, according to FAOSTAT data).¹

Of the five most important tropical and subtropical fruit growing countries in the world (India, China, Philippines, Brazil, and Thailand, all with more than one million hectares), only the Philippines and Thailand provided data on the area used for growing organic tropical and subtropical fruit in 2017.

The largest organic growers for which data on the organic area was available were Mexico (almost 131'000 hectares), the Dominican Republic (almost 26'000 hectares), Turkey (over 24'000 hectares), and Kenya (more than 19'000 hectares). Some of these countries also report very high organic shares of tropical and subtropical fruit, more than the ten percent of their countries' total area for these crops: In the case of the Dominican Republic, bananas; and in the case of Mexico, mangos and avocados. The largest organic shares of tropical and subtropical fruit area are in Burkina Faso (66.6 percent), Fiji (52.2 percent), Turkey (37.5 percent), and Slovenia (26.9 percent). By area, the key tropical and subtropical fruits are bananas, avocados, figs, and mangos (Figure 38).

Since 2004, when data on land use and crops was collected for the first time, the tropical fruit area has increased more than nine-fold (Figure 39). Some of the increase can be attributed to the continually improving data availability. In 2017, an increase of 6.6 percent compared to 2016 was reported; after the drop reported in 2016.

The available data on the conversion status indicates that nearly 12 percent of the total tropical and subtropical fruit area is in conversion. This suggests that a slight increase in supply in the near future may be expected.

For more information on banana production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2018."²

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC](http://www.fao.org/faostat/Data/Crops)

² Julia Lernoud, Jason Potts, Gregory Sampson, Bernhard Schlatter, Gabriel Huppe, Vivek Voora, Helga Willer and Joseph Wozniak (2018), The State of Sustainable Markets – Statistics and Emerging Trends 2018. ITC, Geneva. Available at: <http://www.vss.fibl.org/de/vss.html>

Table 33: Tropical and subtropical fruit: Organic area by crop 2017

Main crop	Area [ha]	Change 2016-2017 [ha]	Organic share [%]
Avocados	63'449	+259	11.3%
Bananas	88'581	+29'829	0.9%
Camu camu	140	-	-
Carobs	459	-386	0.7%
Dates	14'708	-24'193	1.1%
Figs	31'392	+13'304	10.2%
Guava	11'206	+105	-
Kiwis	5'944	+135	2.1%
Litchi	1'154	+168	-
Mangos	30'049	+8'607	0.6%
Noni	266	-161	-
Opuntia	4'983	+2'567	-
Papayas	832	+103	0.2%
Passion fruit	869	+679	-
Persimmons	262	-1	0.03%
Pineapples	9'211	+2'044	0.9%
Pitaya	26	-280	-
Pomegranate	3'398	+253	-
World	379'699	+23'423	1.5%

Source: FiBL survey 2019

* Total includes tropical and subtropical fruit areas for which no details were available

Tropical and subtropical fruit: Distribution of global organic area by crop 2017

Source: FiBL survey 2019

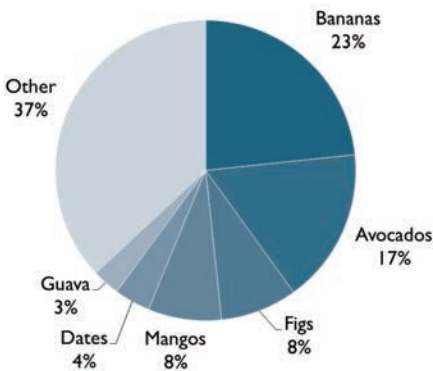


Figure 38: Tropical and subtropical fruit: Distribution of global organic area by crop 2017

Source: FiBL survey 2019

Tropical and subtropical fruit: Development 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

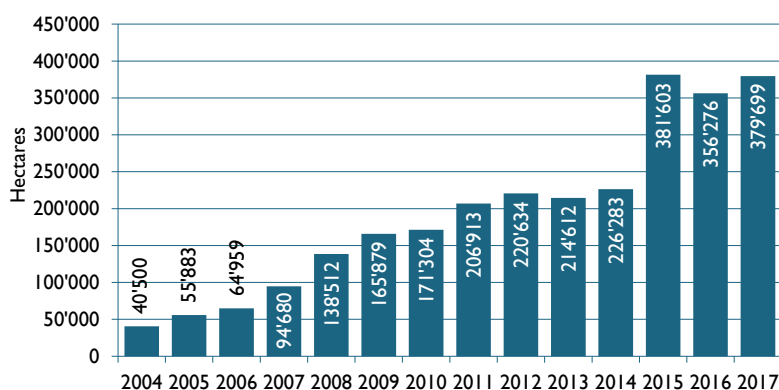


Figure 39: Tropical and subtropical fruit: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

Table 34: Tropical and subtropical fruit: Organic area by country 2017

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Algeria	564	0.3%	502	
Argentina	81	0.8%	81	
Azerbaijan	495	4.4%	180	315
Bangladesh	10	0.003%		
Benin	267	2.4%		
Bolivia	40	0.1%	38	2
Bulgaria	36	-	25	11
Burkina Faso	10'213	66.6%	6'835	
Burundi	83	0.04%	83	
Cameroon	350	0.1%		
Canada	1	16.7%	1	
Chile	298	0.8%		
Colombia	1'746	0.3%	1'723	22
Cook Islands	10	9.2%	10	
Costa Rica	4'780	4.5%		
Côte d'Ivoire	1'420	0.2%	51	
Croatia	102	10.2%	79	23
Cuba	68	0.05%		
Cyprus	96	4.7%	41	55
Dominican Republic	25'835	24.6%	22'579	3'256
Ecuador	15'813	5.0%	13'148	2'665
Egypt	495	0.2%	495	
El Salvador	10	0.2%	10	
Fiji	1'056	-	1'056	
France	95	2.2%	59	36
French Guiana (France)	132	6.1%	64	68
French Polynesia	33	7.3%	33	
Ghana	1'217	0.3%	661	477
Greece	817	6.3%	564	253
Grenada	19	1.4%		
Guadeloupe (France)	24	0.7%	10	14

Statistics › Crops › Tropical and Subtropical Fruit

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Guatemala	35	0.03%	35	
Guinea	10	0.004%		
Guinea-Bissau	59	0.3%		
Indonesia	1'486	0.3%	835	14
Iran	4'750	1.5%	4'619	131
Israel	745	3.3%	699	46
Italy	8'418	22.6%	5'750	2'668
Jordan	167	4.1%		
Kenya	19'238	12.4%	13'388	5'850
Lebanon	0.2	0.004%	0.2	
Macedonia, FYROM	1	2.1%	1	
Madagascar	17'128	7.8%	17'128	
Mali	709	1.6%		
Malta	0.02	0.1%	0.01	0.01
Martinique (France)	136	2.0%	109	26
Mexico	130'563	23.6%	117'374	6'400
Montenegro	1	0.1%	1	
Morocco	2'100	1.5%		
Mozambique	786	0.9%	786	
Myanmar	350	0.4%	350	
Pakistan	1'628	0.5%	1'628	
Palestine, State of	1	0.04%		1
Paraguay	7	0.03%	6	1
Peru	7'297	2.6%	1'236	
Philippines	15'527	1.1%	15'388	138
Portugal	772	3.7%	476	295
Puerto Rico	8	0.1%		
Réunion (France)	284	5.1%	200	84
Rwanda	162	0.05%	154	8
Saudi Arabia	12'502	8.6%	8'310	4'192
Senegal	1'298	5.8%	959	210
Serbia	0.2	-	0.1	0.1
Sierra Leone	3'217	21.4%	3'217	
Slovenia	35	26.9%	18	17
South Africa	208	0.5%	7	
Spain	3'645	4.6%	2'262	1'382
Sri Lanka	18'612	19.5%	17'943	668
Sudan	50	0.04%		
Suriname	57	1.9%	57	
Taiwan	1'206	1.3%	1'206	
Tanzania	6'063	0.7%		
Thailand	3'437	0.3%		
Togo	499	20.5%	204	
Tunisia	7'813	8.8%		
Turkey	24'127	37.5%	14'656	9'470
Uganda	2'072	0.2%	1'884	188
United Arab Emirates	419	0.4%	419	
United States	3'519	9.1%		
Vanuatu	2'864	-	2'864	
Viet Nam	9'484	4.1%	3'680	5'804
World	379'699	1.5%	286'178	44'795

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331. Blank cells: No data available.

› Grapes

More than 403'000 hectares of organic grapes are grown, constituting 5.7 percent of the world's grape-growing area (7.1 million hectares in 2016, according to FAOSTAT).¹ In Europe, over 340'000 hectares (8.7 percent of the harvested grape area) are organic. Not all of the grape area listed in the table is used for wine. The production of table grapes and raisins is important in many countries, such as Turkey. All of the five most important grape-growing countries in the world (Spain, China, France, Italy, and Turkey) provided data on the area under organic grape production in 2017.

The countries with the largest organic grape areas are Spain and Italy, each with more than 100'000 hectares of organic grapes, followed by France with over 78'000 hectares. Some of the highest organic shares of the total grape area are also found in these countries (Table 35). Almost 90 percent of the world's organic grape area is in Europe. The rest is distributed almost equally among Asia, North America, and Latin America.

Since 2004, when data on land use and crops were collected for the first time, the organic grape area has increased more than four-fold. However, some of the increase can be attributed to the continually improving availability of crop data.

The available data indicates that a large part of the organic grape area (at least 27 percent) is in conversion. Thus, a considerable increase in the supply of organic grapes may be expected, particularly from Spain, Italy, and France.

Grapes: Development 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

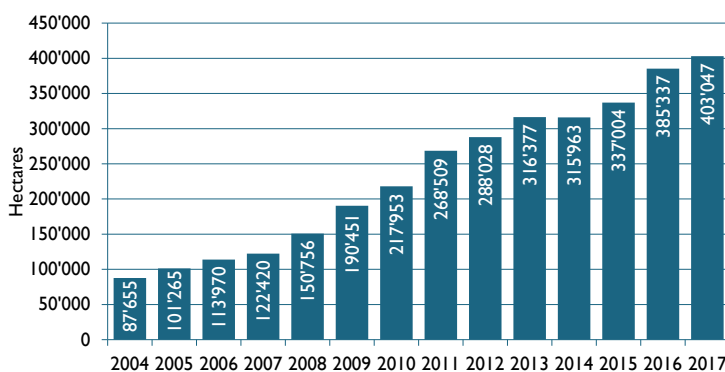


Figure 40: Grapes: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

¹ FAOSTAT, the FAO Homepage, FAO, Rome at [fao.org/faostat > Data > Crops](http://www.fao.org/faostat/Data/Crops)
<http://www.fao.org/faostat/en/#data/QC>

Table 35: Grapes: Organic area by country 2017

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	14	0.1%		
Algeria	208	0.3%	208	
Andorra	2	-	2	
Argentina	5'372	2.4%		
Australia	5'783	4.2%		
Austria	5'663	12.2%		
Azerbaijan	41	0.3%	1	40
Belgium	46	19.6%	19	28
Bulgaria	4'092	11.2%	1'734	2'358
Canada	598	5.0%	598	
Chile	4'446	2.2%		
China	24'500	2.9%	15'600	8'900
Croatia	1'010	4.3%	652	358
Cyprus	264	4.4%	229	36
Czech Republic	788	5.0%	638	150
Denmark	45	-	20	24
Egypt	1'970	2.6%	1'970	
Estonia	3	-	2	1
France	78'502	10.4%	60'953	17'549
Georgia	130	0.3%	55	75
Germany	7'300	7.3%		
Greece	4'424	3.9%	3'393	1'031
Hungary	1'716	2.5%	922	794
Iran	2'012	1.0%	2'012	
Ireland	2	-	0	2
Israel	29	0.4%	27	2
Italy	105'384	15.8%	70'792	34'592
Jordan	10	0.3%		
Lebanon	421	5.3%	419	2
Liechtenstein	4	-	4	
Luxembourg	123	9.8%	84	39
Macedonia, FYROM	33	0.1%	24	9
Malta	9	0.6%	8	1
Mexico	2'155	7.3%	2'155	
Moldova	7	0.01%	7	
Montenegro	1	0.03%	1	0
Netherlands	11	1.3%	11	0
New Zealand	1'720	4.3%		
Poland	289	-	205	84
Portugal	3'504	2.0%	2'244	1'260
Republic of Korea	70	0.5%		
Romania	2'169	1.2%	1'652	517
Russian Federation	16	0.02%		16
Serbia	23	0.1%	12	12
Slovakia	124	1.4%	118	6
Slovenia	561	3.5%	338	223
South Africa	2'473	2.1%	1'169	317
Spain	106'897	11.6%	75'580	31'317
Switzerland	1'003	6.8%		
Turkey	15'921	3.7%	6'364	9'557
United Kingdom	86	22.5%	75	11
United States	11'071	2.7%		
World	403'047	5.7%	250'297	109'311

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Blank cells: Not data

› Oilseeds

Almost 1.2 million hectares were used for growing organic oilseeds in 2017. This is 0.5 percent of the world's total harvested oilseed area (almost 230 million hectares according to FAOSTAT).¹

The main countries in which oilseeds are grown are the United States, Brazil, India, Argentina, and China (each with more than 20 million hectares). Data on organic production was available for all of these countries but Brazil. The countries with the largest organic oilseed area are China, India, the Russian Federation, Sudan, Romania, and the United States.

The highest organic shares are in Peru (23.3 percent, mainly sesame) and Austria (18.7 percent, mostly soybeans).

Since 2004, when data on land use and crops was collected for the first time, the oilseed area (2004: almost 144'000 hectares) has increased more than eight-fold. However, some of the increase can be attributed to the continually improving availability of crop data. In 2017, the organic oilseed area reported a drop of nearly 13 percent (over 172'500 hectares). Over third of the organic oilseed area is for soybeans, and another twenty percent is for sunflower seeds and sesame (Figure 42).

The data available for a breakdown of the total fully converted and in conversion area shows that at least 17 percent is in conversion and will be fully converted in the next few years. This has implications for the availability of organic oilseeds in the near future.

Table 36: Oilseeds: Organic area by crop 2017

Main crop	Area [ha]	Change 2016-2017 [ha]	Organic share [%]
Jojoba	352	+58	-
Linseed (oil flax)	56'203	+16'898	2.0%
Mustard	506	-2'505	0.1%
Oil pumpkin	6'264	+575	-
Peanuts	86'794	-106	0.3%
Poppy seed	272	+272	0.2%
Rape and turnip rape	94'971	-5'704	0.3%
Sacha inchi	295	-	-
Safflower	6'570	-5'699	0.6%
Sesame	112'734	-4'127	1.1%
Soybeans	429'621	-148'622	0.4%
Sunflower seed	151'065	+265	0.6%
World	1'197'203	-172'542	0.5%

Source: FiBL survey 2019.

*Total includes oilseed areas for which no details were available

¹ FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > <http://www.fao.org/faostat/en/#data/QC>

Oilseeds: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

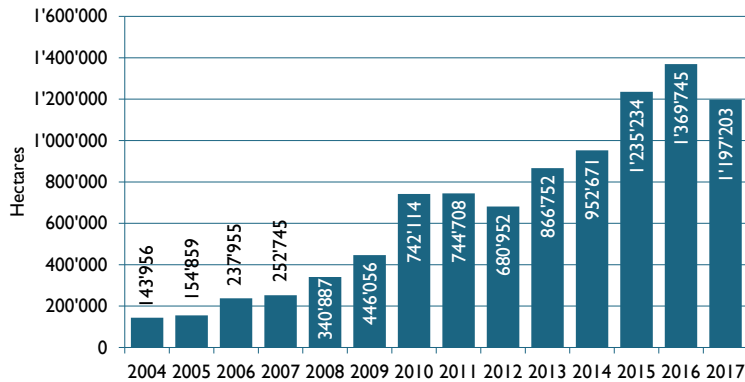


Figure 41: Oilseeds: Development of the global organic oilseed area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

Oilseeds: Use of organic oilseed area by crop 2017

Source: FiBL survey 2019

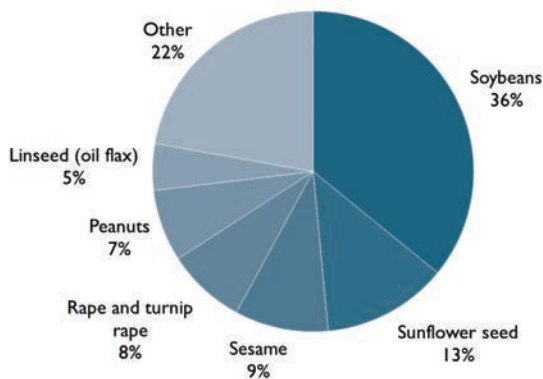


Figure 42: Oilseeds: Use of organic oilseed area by crop 2017

Source: FiBL survey 2019

Table 37: Oilseeds: Organic area by country 2017

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Afghanistan	123	0.8%	123	
Argentina	19'138	0.1%		
Austria	28'617	18.7%		
Azerbaijan	126	0.6%	50	76
Belgium	267	1.0%	201	66
Benin	12'605	3.9%	12'541	22
Bolivia	4'038	0.3%	4'038	
Bosnia and Herzegovina	87	1.0%	87	
Bulgaria	6'058	0.6%	2'180	3'877
Burkina Faso	16'730	2.0%	4'421	
Canada	56'875	0.5%	56'875	
China	167'000	0.8%	124'000	43'000
Colombia	0.2	0.001%	0.2	
Côte d'Ivoire	119	0.1%		
Croatia	9'505	5.7%	5'810	3'694
Czech Republic	1'322	0.3%	982	340
Denmark	2'143	1.3%	1'737	406
Ecuador	122	0.3%	104	18
Egypt	1'589	1.4%	1'589	
Estonia	5'053	7.2%	3'795	1'258
Ethiopia	24'936	2.9%	24'936	
Finland	1'541	2.6%	1'541	
France	59'172	2.6%	41'294	17'878
Germany	13'100	1.0%		
Greece	6'915	5.9%	2'392	4'522
Guatemala	342	0.6%		342
Guinea-Bissau	111	0.3%		
Hungary	9'647	1.0%	7'203	2'444
Iceland	6	-	6	
India	130'000	0.5%		
Indonesia	309	0.03%	109	
Iran	650	0.2%	650	
Ireland	90	0.9%	81	9
Israel	336	4.1%	336	
Italy	21'768	5.2%	14'770	6'998
Kazakhstan	42'726	2.2%	30'173	
Kenya	1'179	0.7%	465	714
Kyrgyzstan	5	0.01%	4	1
Latvia	1'167	1.2%	1'101	66
Liechtenstein	7	-	7	
Lithuania	8'180	5.2%	6'615	1'565
Luxembourg	9	0.3%	9	
Macedonia, FYROM	19	0.4%	14	5
Mali	10'110	1.8%		
Malta	0.1	-	0.1	0.03
Mexico	23'543	4.5%	22'885	
Moldova	4'183	1.0%	2'243	1'940
Namibia	38	5.1%	38	
Nepal	122	0.03%		122

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Netherlands	33	0.7%	19	14
Nicaragua	2'500	5.0%	2'500	
Nigeria	200	0.004%	70	130
Norway	51	1.2%	51	
Paraguay	784	0.02%	784	
Peru	1'442	23.3%	1'419	
Poland	4'084	0.5%	2'496	1'588
Portugal	45	0.2%	45	
Romania	70'090	4.3%	43'615	26'475
Russian Federation	114'575	1.0%	44'914	166
Senegal	1'362	0.1%	925	387
Serbia	2'255	0.6%	1'410	845
Slovakia	2'966	1.2%	2'071	895
Slovenia	298	5.1%	250	48
South Africa	124	0.01%		60
Spain	8'537	1.1%	6'290	2'247
Sudan	86'000	1.7%	3'000	83'000
Sweden	8'976	8.9%	7'855	1'121
Switzerland	964	3.5%		
Togo	36'448	-	14'775	158
Turkey	5'578	0.6%	4'561	1'017
Uganda	44'587	4.2%		
Ukraine	52'020	0.6%		
United Arab Emirates	0.1	-	0.1	
United Kingdom	111	0.02%	76	34
United States	61'164	0.2%		
Zambia	270	0.1%	200	
Zimbabwe	12	0.004%	3	5
World	1'197'203	0.5%	512'732	207'554

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

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For more information on soybean production (organic and other Voluntary Sustainability Standards (VSS)), please see the report “The State of Sustainable Markets – Statistics and Emerging Trends 2018.”¹

¹ Julia Lernoud, Jason Potts, Gregory Sampson, Bernhard Schlatter, Gabriel Huppe, Vivek Voora, Helga Willer and Joseph Wozniak (2018), The State of Sustainable Markets – Statistics and Emerging Trends 2018. ITC, Geneva. Available at: <http://www.vss.fibl.org/de/vss.html>

› Olives

Almost 883'000 hectares of olives were reported to be under organic production in 2017. This represents 8.3 percent of the world's total harvested olive area (10.7 million hectares according to FAOSTAT).

The main countries in which olives are grown are around the Mediterranean. Spain is by far the largest grower with 2.6 million hectares, followed by Tunisia (1.6 million hectares) and Italy (1.2 million hectares). Greece and Morocco are also important producers. For all these countries, data for the organic area was available.

Tunisia has the largest area of organic olives (more than 254'000 hectares), followed by Italy (almost 236'000 hectares), and Spain (more than 195'000 hectares). Almost 70 percent of the world's organic olive area is in Europe, followed by northern Africa with nearly 30 percent of the world's organic olive area. In Italy, the percentage of area under organic production is relatively high (over 20 percent).

In Tunisia, 15.5 percent of the olive area is organic, and in Spain almost 8 percent. France has the highest organic share with 27.3 percent of the olive area being organic. Since 2004, when data on land use and crops were collected for the first time, the olive area almost trebled. The available data indicates that a large part of the total olive area, 18 percent, is in conversion. Thus, an increase in the supply of organic olives may be expected.

Olives: Distribution by region and top 10 producing countries 2017

Source: FiBL survey 2019

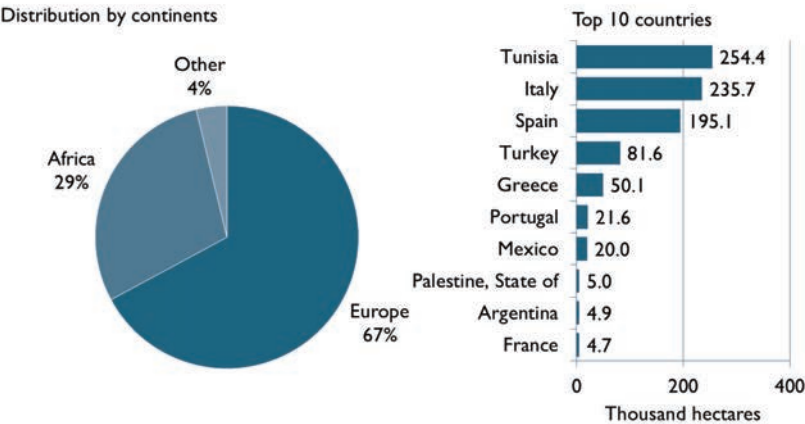


Figure 43: Organic olive area: Distribution by region and top 10 producing countries 2017

Source: FiBL-survey 2019; based on national data sources and certifier data. For detailed data sources see annex, page 331

Olives: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

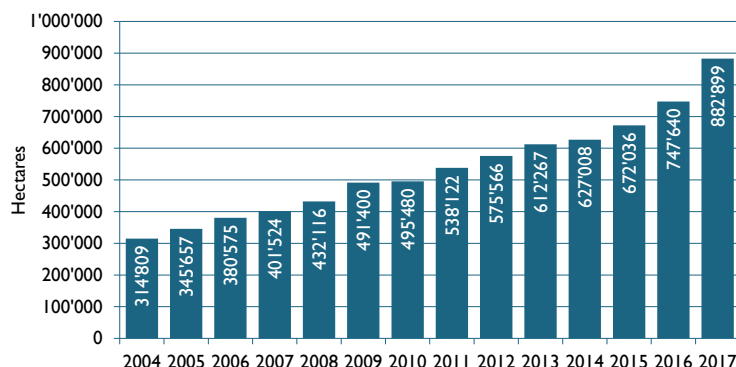


Figure 44: Olives: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019; based on national data sources and certifier data. For detailed data sources see annex, page 331

Table 38: Olives: Organic area by country 2017

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	198	0.5%		
Argentina	4'883	7.9%		
Azerbaijan	13	0.4%	5	8
Chile	966	4.7%		
Croatia	1'750	9.6%	1'221	529
Cyprus	1'547	14.6%	1'101	445
Egypt	1'008	1.5%	1'008	
France	4'736	27.3%	4'027	709
Georgia	70	-		70
Greece	50'085	5.6%	35'415	14'670
Iran	245	0.4%	155	90
Israel	557	1.7%	503	54
Italy	235'741	20.2%	172'231	63'510
Jordan	356	0.6%		
Lebanon	244	0.4%	173	72
Macedonia, FYROM	0.3	0.004%	0.3	
Malta	9	-	9	0.1
Mexico	20'000	-	20'000	
Montenegro	4	3.9%	3	1
Morocco	1'560	0.2%		
Palestine, State of	5'016	7.5%	4'557	459
Peru	95	0.6%	89	
Portugal	21'634	6.1%	15'978	5'656
Slovenia	243	20.7%	192	51
South Africa	110	-	55	46
Spain	195'114	7.6%	148'385	46'730
Tunisia	254'411	15.5%		
Turkey	81'586	9.6%	58'518	23'068
United States	719	5.1%		
World	882'899	8.3%	463'624	156'167

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Blank cells: No data available.

› Vegetables

The total area under organic vegetable production in 2017 (nearly 676'000 hectares) was 1.1 percent of the total area of vegetables grown in the world (62 million hectares in 2016, according to FAOSTAT).¹

Of the four most important vegetable-growing countries in the world (China, India, Nigeria, and Viet Nam), data on the organic area was only available for China, Nigeria, and Viet Nam.

The countries with the largest organic vegetable areas are China, Mexico, the United States, Italy, Egypt, and France.

The highest organic shares of the total vegetable areas are in Denmark, Austria, Switzerland, and Mexico. These are also the countries in Europe that, with the exception of Mexico, have the largest organic market shares for organic food. Furthermore, Sweden and Italy reported high organic shares of the total vegetable area.

Since 2004, when data on organic land use and crops was collected for the first time, the vegetable area increased by over six-fold, from 105'000 hectares to the current 676'000 hectares. The major increase in 2017 is mainly due to a substantial increase of the vegetable area in China, Italy, and Spain.

A large part (nearly 120'000 hectares) is for fruit vegetables, followed by leafy and stalked vegetables (salads). For most countries, however, no crop details for the vegetable area are available.

The available data on the breakdown of the fully converted and in conversion area at least 54'000 hectares of a large part of the organic vegetable area is under conversion. Thus, it can be concluded that not a big increase of the organic vegetable supply can be expected.

¹ FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > <http://www.fao.org/faostat/en/#data/QC>

Vegetables: Development 2004-2017

Source: FiBL-IFOAM-SOEL-Surveys 2006-2019

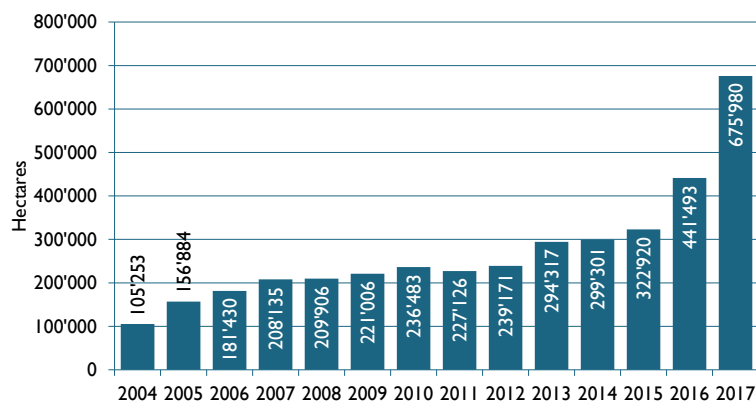


Figure 45: Vegetables: Development of the global organic area 2004-2017

Source: FiBL-IFOAM-SOEL surveys 2006-2019

Table 39: Vegetables: Organic area by country 2017

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	3	0.01%		
Argentina	2'766	1.4%		
Australia	3'902	5.6%		
Austria	4'000	24.2%		
Azerbaijan	213	0.2%	55	158
Bangladesh	157	0.02%		
Belgium	1'846	2.8%	1'654	192
Benin	5	0.004%		
Bhutan	53	0.6%		53
Bosnia and Herzegovina	28	0.02%	26	3
Bulgaria	2'648	6.6%	1'407	1'241
Burkina Faso	1	0.002%		
Cambodia	30	0.03%		
Canada	5'539	7.2%	5'539	
Chile	370	0.6%		
China	279'300	1.1%	256'800	22'500
Colombia	22	0.02%	19	4
Costa Rica	158	1.0%		
Croatia	353	3.8%	176	179
Cyprus	61	1.8%	31	30
Czech Republic	248	2.1%	200	48
Denmark	3'685	33.3%	3'603	81
Dominican Republic	120	0.3%	120	
Ecuador	3'571	4.0%	3'002	569
Egypt	23'379	3.0%	23'379	
El Salvador	3	0.05%	3	

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Estonia	214	6.4%	198	16
Finland	1'008	8.8%	1'008	
France	20'866	9.3%	18'909	1'957
French Guiana (France)	19	1.3%	15	4
French Polynesia	3	0.6%	3	
Gambia	1	0.02%		
Georgia	8	0.04%	8	
Germany	13'846	9.4%		
Greece	1'487	1.5%	963	524
Guadeloupe (France)	12	0.3%	10	2
Guatemala	565	0.5%	485	80
Hungary	3'446	6.7%	2'342	1'104
Iceland	16	-	16	
Indonesia	123	0.01%		
Iran	385	0.1%	100	285
Iraq	51	0.04%		
Ireland	328	4.8%	249	79
Israel	1'236	1.1%	1'204	32
Italy	54'720	10.8%	37'969	16'751
Jamaica	57	0.3%	56	0
Japan	1'326	0.4%	1'326	
Jordan	16	0.04%		
Kenya	4'786	2.7%	4'786	
Kyrgyzstan	49	0.1%	41	8
Lao P.D.R.	47	0.02%		
Latvia	379	4.9%	291	88
Lebanon	89	0.3%	88	1
Liechtenstein	18	-	18	
Lithuania	372	3.6%	336	36
Luxembourg	57	-	39	19
Macedonia, FYROM	178	0.4%	111	67
Madagascar	14	0.03%	14	
Malta	4	0.1%	3	1
Martinique (France)	20	0.9%	17	4
Mauritius	3	0.1%	1	2
Mexico	97'149	13.2%	97'149	
Moldova	109	0.3%	109	
Montenegro	1	0.1%	1	1
Morocco	426	0.3%		
Namibia	68	1.0%	17	11
Netherlands	7'297	8.0%	7'232	66
Nicaragua	1	0.02%	1	
Nigeria	140	0.004%	138	2
Norway	721	10.0%	669	53
Oman	16	0.1%		
Palestine, State of	0.2	0.001%	0.2	
Panama	209	1.9%	20	
Peru	1'001	0.5%	45	
Philippines	10	0.001%	10	
Poland	10'236	5.2%		

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Portugal	2'312	4.2%	2'022	290
Republic of Korea	310	0.1%		
Réunion (France)	104	1.7%	94	10
Romania	1'442	0.5%	1'147	295
Russian Federation	96	0.01%	87	5
Saudi Arabia	555	0.7%	508	47
Senegal	168	0.3%	43	125
Serbia	215	0.2%	111	103
Slovakia	199	2.6%	185	15
Slovenia	217	3.9%	189	28
South Africa	410	0.3%	285	72
Spain	20'331	5.9%	16'088	4'243
Sri Lanka	5	0.01%	5	
Sweden	1'997	11.4%	1'806	191
Switzerland	2'670	16.9%		
Taiwan	2'439	1.8%	2'439	
Thailand	735	0.2%		
Tunisia	137	0.1%		
Turkey	4'028	0.4%	2'259	1'768
Uganda	5'245	2.1%		
Ukraine	5'780	1.1%		
United Arab Emirates	16	0.1%	16	
United Kingdom	5'327	4.9%	5'065	262
United States	64'461	7.5%		
Viet Nam	263	0.02%	85	178
Zambia	525	1.0%	225	300
Zimbabwe	401	1.3%	212	72
World	675'980	1.1%	504'880	54'254

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Commodity Case Studies

The State of Sustainable Markets: Statistics and Emerging Trends

JULIA LERNOUD,¹ JASON POTTS,² GREGORY SAMPSON,³ BERNHARD SCHLATTER,⁴ GABRIEL HUPPE,⁵ VIVEK VOORA,⁶ HELGA WILLER,⁷ AND JOSEPH WOZNIAK⁸

Here we present a summary of the “State of Sustainable Markets: Statistics and Emerging Trends 2018” report (Lernoud et al. 2018), which offers a comprehensive snapshot of production-related data (area, production, and producers) for key global sustainability standards across eight commodity sectors (bananas, cocoa, coffee, cotton, palm oil, soybeans, sugarcane, and tea) and forestry. It also gives an overview of each of the 14 Voluntary Sustainability Standards (VSS) covered: 4C, Better Cotton Initiative (BCI), Bonsucro, Cotton Made in Africa (CmiA), GLOBALG.A.P., Fairtrade International, Forest Stewardship Council (FSC), IFOAM – Organics International, the Programme for the Endorsement of Forest Certification (PEFC), ProTerra Foundation, the Roundtable on Sustainable Palm Oil (RSPO), the Round Table on Responsible Soy (RTRS), Rainforest Alliance/Sustainable Agriculture Network (RA/SAN), and UTZ.

The report is the third product of a partnership between the Research Institute of Organic Agriculture (FiBL), the International Institute for Sustainable Development (IISD) and the International Trade Centre (ITC) funded by the Swiss State Secretariat for Economic Affairs (SECO). Currently, the data collection of the 2017 data is in progress.

Growth continues

Between 2011 and 2016, all standards covered experienced growth in their compliant areas, and currently at least 15 million hectares are certified according to these standards for eight selected crops (Figure 46).⁹ The Round Table on Responsible Soy (RTRS) underwent the greatest jump, with the certified area expanding more than seven fold. The Better Cotton Initiative (BCI) area increased nearly five times, while that of Cotton made in Africa (CmiA) nearly quadrupled. Similarly, significant growth in certified area was also reported by 4C and RSPO.

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⁸ Joseph Wozniak, International Trade Centre, Geneva, Switzerland, www.intracen.org

⁹ 2011 is the first year for which data is available for all voluntary sustainability standards covered in the report, with the exception of GLOBALG.A.P. for which data is only available since 2012.

Development of the VSS compliant area worldwide 2008-2016 (8 selected commodities, minimum possible)

Source: FiBL-IISD-ITC survey 2018

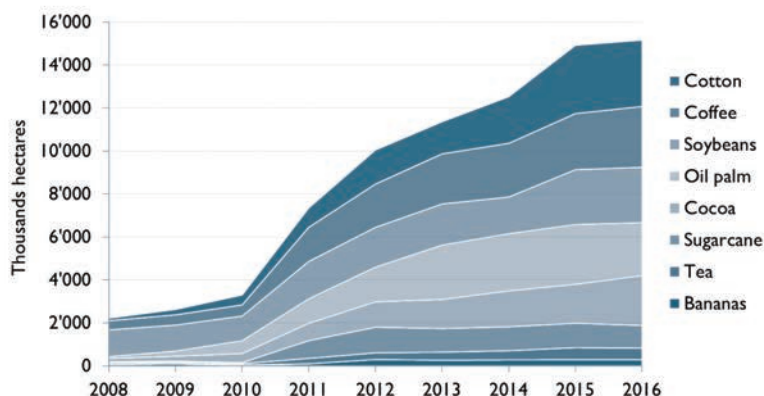


Figure 46: Development of the VSS compliant area worldwide, 2008-2016 (eight selected commodities, minimum possible)

Sources: FiBL-ITC-SSI survey 2018; Coffee Assurance Services 2014, 2015, 2016, and 2018; Better Cotton Initiative 2014, 2015, 2017, and 2018; Bonsucro 2014, 2015, 2016, and 2018; Cotton made in Africa 2014, 2015, 2016, and 2018; Fairtrade International 2017 and 2018; GLOBALG.A.P. 2015, 2016, and 2018; FiBL survey 2018; ProTerra Foundation 2014, 2015, 2016, and 2018; Rainforest Alliance 2014, 2015, 2016, and 2018; Roundtable on Sustainable Palm Oil 2014, 2015, 2016, and 2018; Round Table on Responsible Soy 2014, 2015, 2016, and 2018; UTZ 2014, 2015, 2016, and 2018

Looking at individual agricultural sectors, while cocoa experienced the greatest increase in certified area (28 percent) between 2015 and 2016¹; most other commodities experienced single-digit growth or even saw their certified area decline over the same period. For example, the oil palm area fell by 11.5 percent and the sugarcane area by almost 8 percent.

Organic continues to be the leading standard by certified area

Organic is the biggest sustainability standard in terms of both area and product variety. In 2016, more than 57.8 million hectares of agricultural production were certified as organic (including areas in the process of becoming organic-certified), representing 1.2 percent of agricultural land worldwide. GLOBALG.A.P. has the second-largest area of all the standards, accounting for 0.09 percent of the global agricultural area. In addition, the Roundtable on Sustainable Palm Oil (RSPO) certified more than 3.2 million hectares in 2016, making it the third biggest standard in terms of area certified.

¹ These growth rates are calculated by taking the minimum area possible as the reference.

Total certified area per VSS 2016

Source: FiBL-IISD-ITC survey 2018

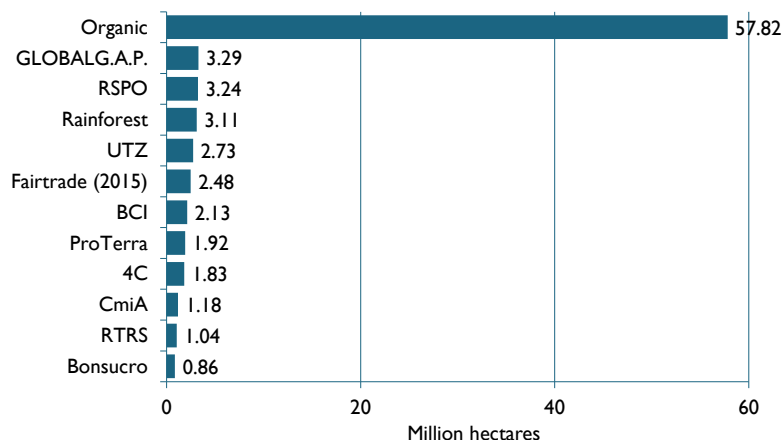


Figure 47: Total certified area per VSS, 2016 (only agriculture)¹

Sources: FiBL-ITC-SSI survey 2018; Coffee Assurance Services 2016; Better Cotton Initiative (BCI) 2018; Bonsucro 2018; Cotton Made in Africa (CmiA) 2018; Fairtrade International 2017; GLOBALG.A.P. 2018; FiBL survey 2018; ProTerra Foundation 2018; Rainforest Alliance (RA) 2018; Roundtable on Sustainable Palm Oil (RSPO) 2018; Round Table on Responsible Soy (RTRS) 2018; UTZ 2018.

Sector-specific highlights

What follows is an overview of the key statistics for each of the selected sectors (bananas, cocoa, coffee, cotton, palm oil, soy, sugarcane, tea, and forestry products). There is little information available on multiple certification,² and it has thus been decided to provide the minimum possible area of production, assuming that everything is 100 percent multiple-certified, and the maximum possible (no multiple certification), along with the average between both.

- Bananas:** Four of the VSS – Fairtrade International, GLOBALG.A.P., Organic and Rainforest Alliance/SAN (RA/SAN) – certified banana production in 2016. Combined, they certified a minimum of 289'000 hectares representing 5.3 percent of the global banana area. With more than 252'000 hectares, GLOBALG.A.P. had by far the largest VSS-certified banana area in 2016; the area with the highest

¹ Please note that the organic area is the area harvested estimated by FiBL, assuming that 90 percent of the fully converted area is actually harvested. This was done in order to make the organic data comparable with the data of the other VSS, which reported data on the harvested area. For the Rainforest Alliance/SAN, the area cultivated is shown.

² Multiple certification: It should be noted that many of the areas certified by VSS are multiple-certified. In our survey, we asked for the extent of multiple certification by country and VSS. The maximum would be the sum of the total area/production provided by the individual VSSs, and the minimum would be the area of the VSS with the largest area. An average between the maximum and minimum area gives us an estimate of the possible certified area for a given commodity.

growth (87 percent) in 2012–2016 was that of RA/SAN. (See also chapter on organic tropical and subtropical fruits, page 113).

- **Cocoa:** Four of the standards – Fairtrade International, Organic, RA/SAN and UTZ – certified cocoa production. Combined, they certified a minimum of 2.3 million hectares representing 22.8 percent of the global cocoa area. UTZ reported the largest VSS-certified cocoa area (2.1 million hectares) and reported the largest growth (fourfold between 2011 and 2016). (See also chapter on organic cocoa, page 102).
- **Coffee:** Five of the standards – 4C, Fairtrade International, Organic, RA/SAN and UTZ – certified coffee production. Combined, they certified a minimum of 2.8 million hectares or 25.8 percent of the global coffee area. 4C had the largest VSS-certified coffee area, over 1.8 million hectares, and it also registered the largest growth in the area (it trebled between 2011 and 2016)¹. (See also chapter on organic coffee, page 104).
- **Cotton:** Four of the standards – BCI, CmiA, Fairtrade International and Organic – certified cotton production. Combined, they certified a minimum of 3.1 million hectares representing 10.2 percent of the global cotton area. With 2.1 million hectares, BCI had the largest VSS-certified cotton area, and it showed the largest growth: a fivefold increase was reported for the 2011–2016 period.² (See also chapter on organic cotton, page 138).
- **Oil palm:** Three of the standards – Organic, RA/SAN and RSPO – certified oil palm production. Combined, they certified a minimum of 2.46 million hectares representing 11.7 percent of the global oil palm area. With 3.2 million hectares, RSPO had the largest VSS-certified oil palm area, while organic showed the largest growth: its area trebled between 2013 and 2016.
- **Soy:** Three of the standards – Organic, ProTerra Foundation and RTRS – certified soybean production. Combined, they certified a minimum of 2.6 million hectares or 2.1 percent of the global soy area. ProTerra Foundation had the largest VSS-certified soybean area (1.9 million hectares), while the largest growth (a sevenfold increase between 2011 and 2016) was noted for RTRS. (See also chapter on organic oilseeds, page 119).
- **Sugarcane:** Three of the standards – Bonsucro, Fairtrade International and Organic – certified sugarcane production. Combined, they certified a minimum of 1.05 million hectares or 3.9 percent of the global sugarcane area. Bonsucro had the largest VSS-certified sugarcane area, 0.9 million hectares; the largest growth was noted for Fairtrade International, whose area almost doubled between 2011 and 2016.

¹ As the 2016 coffee data for Fairtrade International were not available at the time of publication, the latest available figures, covering 2015, were used instead.

² As the 2016 cotton data for Fairtrade International were not available at the time of publication, the latest available figures, covering 2015, were used instead.

The State of Sustainable Markets

- **Tea:** Four of the standards – Fairtrade International, Organic, RA/SAN and UTZ – certified tea production. Combined, they certified a minimum of 542'000 hectares or 13.2 percent of the global tea area. RA/SAN had the largest VSS-certified tea area, almost 0.5 million hectares, and it also showed the largest growth in the area (a fourfold increase between 2011 and 2016).
- **Forestry:** In 2016, an estimated 428 million hectares of certified forest were reported, representing almost 11 percent of the global forest area. There is an estimated certification overlap in the sector of 15 percent between FSC and PEFC.

Bananas: Development of the area by VSS 2008-2016

Source: Fairtrade International, 2018; GLOBALG.A.P., 2018; FiBL, 2018; Rainforest Alliance/SAN, 2018

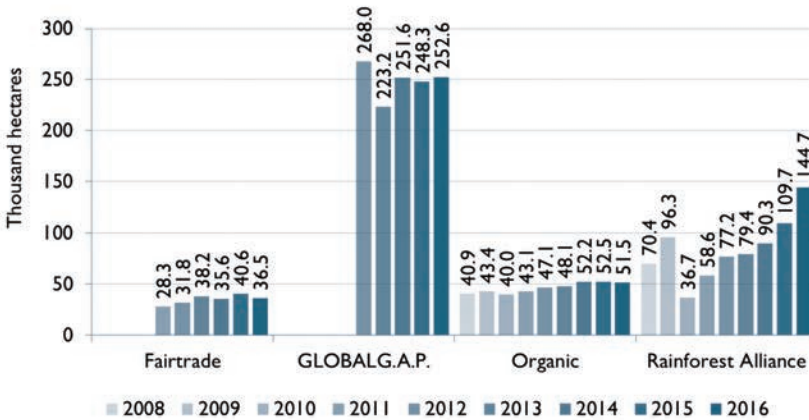


Figure 48: Bananas: Development of the area by VSS, 2008–2016

Source: Fairtrade International, 2018; GLOBALG.A.P., 2018; FiBL, 2018; Rainforest Alliance, 2018

Cocoa: Development of the area by VSS 2008-2016

Sources: Fairtrade International, 2018; FiBL, 2018; Rainforest Alliance/SAN, 2018; UTZ, 2018

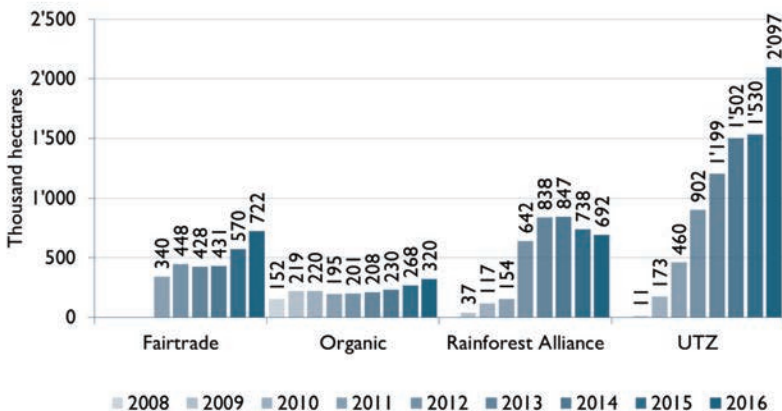


Figure 49: Cocoa: Development of the area by VSS 2008–2016

Sources: Fairtrade International, 2018; FiBL, 2018; Rainforest Alliance, 2018; UTZ, 2018

Coffee: Development of the area by VSS 2008-2016

Sources: 4C Association, 2018; Fairtrade International, 2017; FiBL, 2018; Rainforest Alliance/SAN, 2018; UTZ, 2018

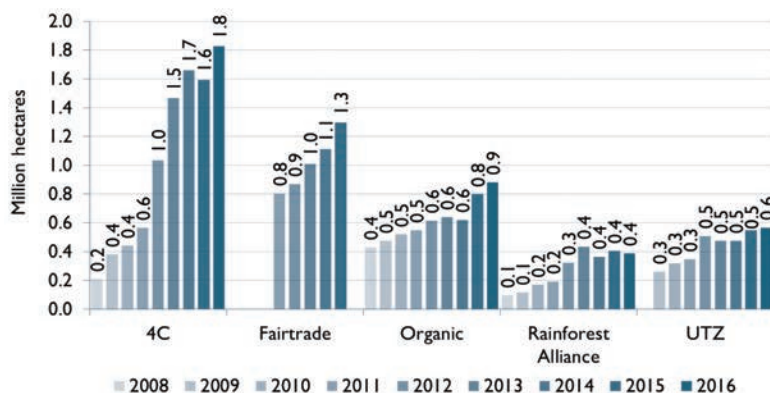


Figure 50: Coffee: Development of the area by VSS, 2008–2016

Sources: Coffee Assurance Services, 2017; Fairtrade International, 2017; FiBL, 2018; Rainforest Alliance, 2018; UTZ, 2018

Note: As the 2016 data for Fairtrade International were not available at the time of publication, the latest available figures, covering 2015, were used instead.

Cotton: Development of the area by VSS 2008-2016

Sources: Better Cotton Initiative, 2018; Cotton Made in Africa, 2018; Fairtrade International, 2017; Textile Exchange, 2018

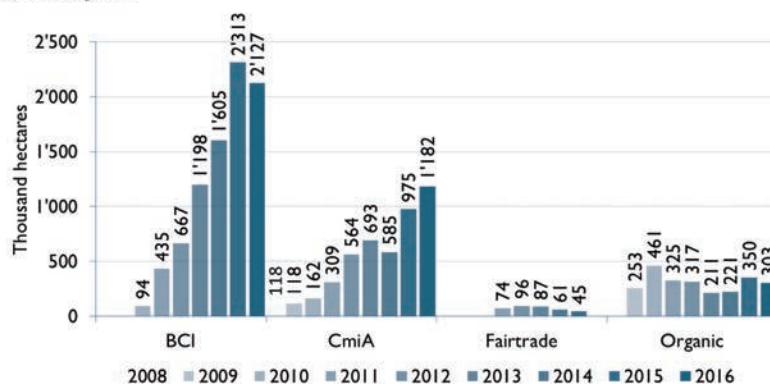


Figure 51: Cotton: Development of the area by VSS, 2008–2016

Sources: Better Cotton Initiative, 2018; Cotton Made in Africa, 2018; Fairtrade International, 2017; Textile Exchange, 2018

Note: As the 2016 data for Fairtrade International were not available at the time of publication, the latest available figures, covering 2015, were used instead.

Oil palm: Development of the area by VSS 2008-2016

Sources: FiBL, 2018; Rainforest Alliance/SAN, 2018; Roundtable on Sustainable Palm Oil (RSPO), 2018

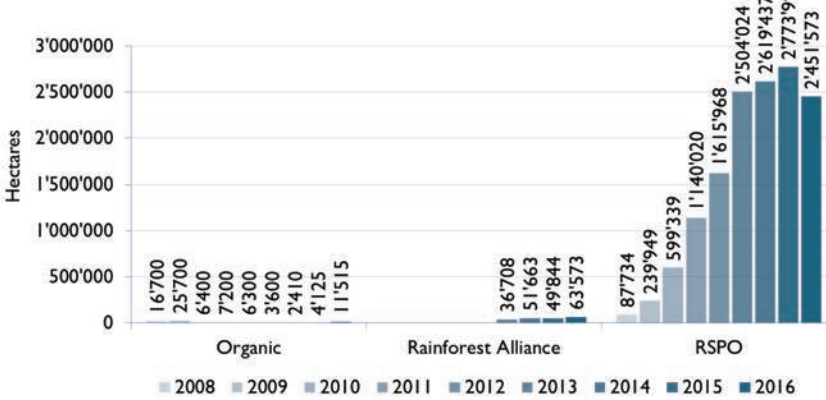


Figure 52: Oil palm: Development of the area by VSS, 2008–2016

Sources: FiBL, 2018; Rainforest Alliance, 2018; Roundtable on Sustainable Palm Oil (RSPO), 2018

Soybeans: Development of the area by VSS 2008-2016

Sources: FiBL, 2018; ProTerra Foundation, 2018; Round Table on Responsible Soy (RTRS), 2018

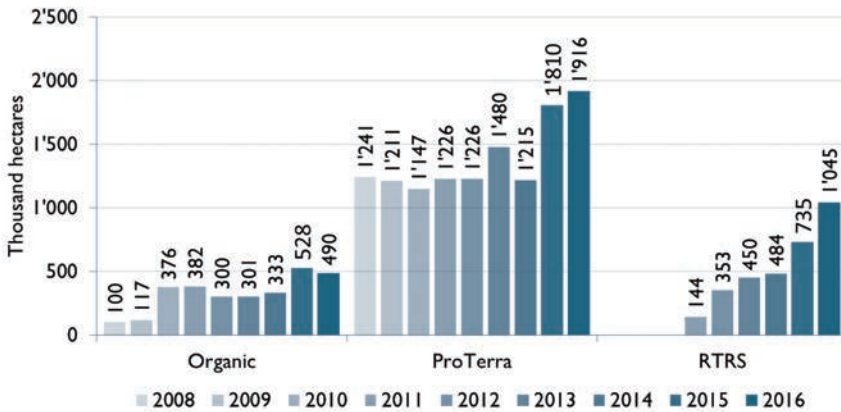


Figure 53: Soybeans: Development of the area by VSS, 2008–2016

Sources: FiBL, 2018; ProTerra Foundation, 2018; Round Table on Responsible Soy (RTRS), 2018

Sugarcane: Development of the area by VSS 2008-2016

Sources: Bonsucro 2018; Fairtrade International, 2018; FiBL, 2018

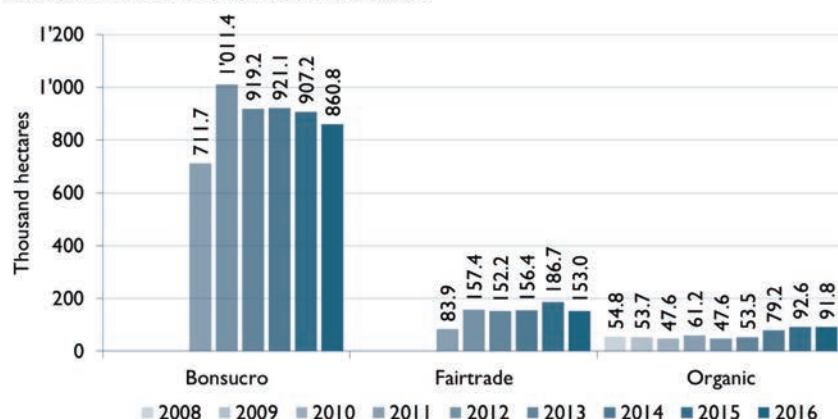


Figure 54: Sugarcane: Development of the area by VSS, 2008–2016

Sources: Bonsucro, 2018; Fairtrade International, 2018; FiBL, 2018

Tea: Development of the area by VSS 2008-2016

Sources: Fairtrade International, 2018; FiBL, 2018; Rainforest Alliance/SAN, 2018; UTZ, 2018

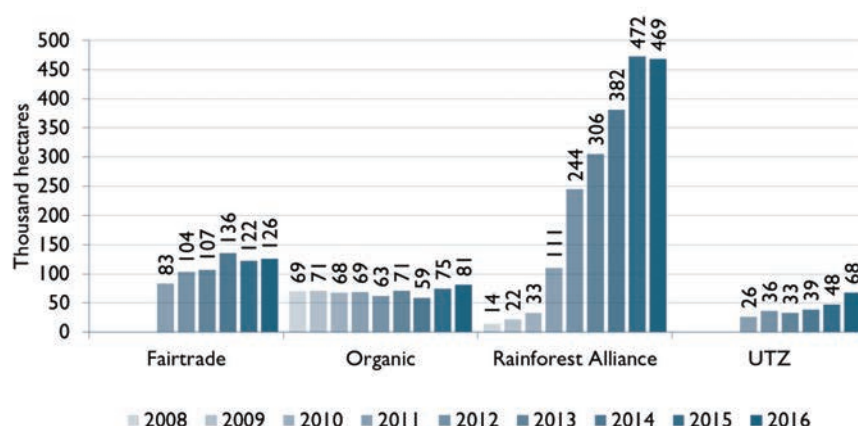


Figure 55: Tea: Development of the area by VSS, 2008–2016

Sources: Fairtrade International, 2018; FiBL, 2018; Rainforest Alliance, 2018; UTZ, 2018

More information

- › The State of Sustainability Initiatives website: www.iisd.org/ssi/
- › FiBL's online database on organic agriculture worldwide: www.organic-world.net
- › ITC online database on Voluntary Sustainability Standards: www.standardsmap.org
- › FiBL's VSS website: www.vss.fibl.org/de/vss.html

Reference

Julia Lernoud, Jason Potts, Gregory Sampson, Bernhard Schlatter, Gabriel Huppe, Vivek Voora, Helga Willer and Joseph Wozniak (2018): The State of Sustainable Markets – Statistics and Emerging Trends 2018. ITC, Geneva

Organic Cotton¹

LIESL TRUSCOTT,² EVONNE TAN,³ LISA EMBERSON,⁴ AND AMISH GOSAI⁵

Global trends

2016/17 was a promising season for organic cotton. As well as seeing growing brand commitments and developments from organic cotton initiatives across the globe, there was a ten percent growth in global fibre production.

The majority of this growth stemmed from China, but other countries that contributed significantly to global growth included Tanzania, Uganda, Benin, Turkey, and the United States.

Organic still occupied less than one percent of global cotton production, but it is interesting to look at the regional breakdown. Kyrgyzstan, for example, produced an impressive 66.8 percent of its overall cotton supply organically, while in Tanzania and Tajikistan the figures were seven and ten percent, respectively.

Globally, there were 220'478 farmers producing organic cotton in 2016/17, spread between 18 countries. Together, they produced 117'525 metric tons of organic cotton fibre on a total certified land area of 472'999 hectares. The top seven organic cotton-producing countries were India, China, Kyrgyzstan, Turkey, Tajikistan, the United States, and Tanzania which, together, accounted for 96 percent of the global total. Production in India, which accounts for just over half of global production but experienced a significant decline in 2015/2016, stabilized in 2016/17.

Outlook

A noteworthy trend in 2016/17 was the substantial area of cotton-growing land in conversion to organic, which totalled 213'566 hectares globally. To put this figure into perspective, it is equivalent to almost 50 percent of the total land area currently certified to grow organic cotton. This suggests strong growth over the coming years as

¹ This article is a condensed version of the Organic Cotton Market Report 2018 produced by Liesl Truscott, Evonne Tan, Lisa Emberson, and Amish Gosai, with production data collected by the following Textile Exchange Regional Ambassadors: Atila Ertem (Turkey and Central Asia), Amish Gosai (India), Silvio Moraes (Latin America), Leonard Mtama (East Africa), Silvere Tovignan (West Africa), Lazare Yombi (West Africa), and Allen You (China).

Textile Exchange's 2018 Market Reports is available here: <https://textileexchange.org/downloads/2018-organic-cotton-market-report/>

More information about Textile Exchange is available on <https://textileexchange.org/>

More information about organic cotton is available on www.aboutorganiccotton.org

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this land reaches certification. Over 80 percent of this in-conversion land is in India, with the remainder stemming predominantly from Pakistan, China, Tanzania, and Turkey.

Development of organic cotton fibre production

Source: Textile Exchange Organic Cotton Market Report 2018

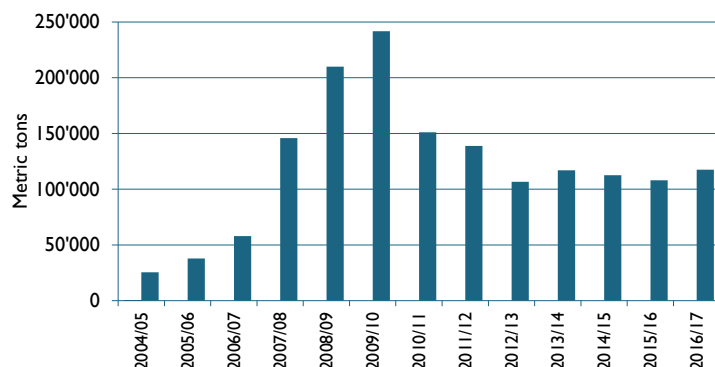


Figure 56: Development of organic cotton fibre production

Source: Textile Exchange Organic Cotton Market Report 2018

On the market side, more and more brands are committing to organic cotton. A growing number of brands and retailers are setting targets and signing commitments to increase their use of organic cotton, either under their own steam or as part of public, group commitments such as that of the German Textile Partnership, or the 2025 Sustainable Cotton Challenge facilitated by Textile Exchange. Such commitments are driving change in supply chains as brands invest in finding innovative and long-term solutions to secure supply and build greater transparency.

We are also seeing promising developments from organic cotton initiatives across the globe, with a surge in the efforts being made to grow and support the organic cotton sector. Read more about these in Textile Exchange's 2018 Organic Cotton Market Report.

Geography of production

The top seven organic cotton-producing countries accounted for 96 percent of global production in 2016/17. These include: India (50.60 percent), China (19.16 percent), Kyrgyzstan (6.82 percent), Turkey (6.59 percent), Tajikistan (5.45 percent), the United States (3.85 percent), and Tanzania (3.21 percent).

The remaining four percent was produced by Egypt (1.48 percent), Greece (0.72 percent), Uganda (0.65 percent), Benin (0.60 percent), Burkina Faso (0.42 percent), Peru (0.29 percent), Mali (0.11 percent), Brazil (0.04 percent), Senegal (0.004 percent), Thailand (0.004 percent), and Argentina (0.0003 percent).

See Table 40 for more detail on country-level production, or read on for region-level summaries.

Africa

Countries producing organic cotton in Africa in 2016/17 included Tanzania and Uganda in the East, and Benin, Burkina Faso, Mali, and Senegal in the West. Combined, a total of 5'863 metric tons of organic cotton fibre was produced on 46'555 hectares by 24'380 farmers. This represents a growth of 29 percent over the previous season, and Africa now accounts for five percent of global organic cotton production. An additional 19'151 hectares of cotton growing land, mostly in Tanzania, were in conversion to organic.

In East Africa, Tanzania continued to account for the vast majority of the region's (as well as the continent's) organic cotton production, followed by Uganda. Ethiopia will join this line-up in 2017/18 as PAN¹ UK's project reaches certification.

In West Africa, the 2016/17 season saw favourable climate conditions, which, combined with training and support received by farmers in Benin and Burkina Faso, resulted in an increase in production in each country except Mali, where production declined.

China

In China, 2016/17 saw a total of 22'521 metric tons of organic cotton fibre produced on 11'846 hectares by 824 farmers. This represents a growth of 52 percent over the previous season, and China now accounts for 19 percent of global organic cotton production. An additional 5'108 hectares of cotton growing land were in conversion to organic.

The majority of China's organic cotton is grown in Xinjiang province, but some production also takes place in Gansu and Hubei. The growth in China's organic cotton production is particularly strong for that certified to China's National Organic Program (NOP). China has a significant area of land in conversion to organic, which will reach certification over the next couple of years.

Growth is fuelled mostly by demand from the organic dairy industry, which uses organic cottonseed as feed for dairy cattle, particularly in the Xinjiang region. Demand from the domestic textile industry is also increasing.

EMENA and Central Asia

Countries producing organic cotton in the EMENA region² in 2016/17 included Egypt, Greece, Kyrgyzstan, Tajikistan and Turkey. Combined, a total of 24'756 metric tons organic cotton fibre was produced on 17'407 hectares by 2'614 farmers. This represents a growth of seven percent over the previous season, and this region now

¹ PAN is the Pesticide Action Network. For more information see www.pan-uk.org/

² Europe, Middle East and North Africa

accounts for 21 percent of global organic cotton production. An additional 3'887 ha of cotton growing land was in conversion to organic, the majority in Turkey but also Kyrgyzstan and Tajikistan.

Kyrgyzstan and Tajikistan experienced a marginal decline in production in 2016/17, following considerable spikes seen over the previous two years, but Egypt and Turkey both saw increases.

It came to light that Greece is also producing organic cotton, which further increased fibre volumes, though it is not currently separated at the gin and is therefore not sold as organic cotton fibre on the market.

Latin America and the Caribbean

Countries producing organic cotton in this region in 2016/17 included Brazil, Peru and Argentina. Combined, a total of 381 metric tons organic cotton fibre was produced on 1'226 hectares by 474 farmers. This represents a growth of 16 percent over the previous season, with this region now accounting for 0.3 percent of global organic cotton production. An additional 460 hectares of cotton growing land was in conversion to organic.

Organic cotton production in Latin America is characterized by rain-fed, smallholder family farms. Since 2013, many of the region's key production zones have been affected by severe drought. 2017 saw the beginning of a transition back to a more typical climate, but farmers were still impacted by losses from previous years. Combined with an economic instability and lack of investment, the strong growth anticipated for this region has not yet been realized.

However, momentum is building in this region, with a number of institutes associated with big retailers having expressed agendas to develop more sustainable supply chains in Latin America and the Caribbean.

South Asia

Countries producing organic cotton in South Asia in 2016/17 included India and Thailand. Pakistan had land in conversion to organic, but no certified production. Combined, the region produced a total of 59'474 metric tons organic cotton fibre on 387'596 hectares of land by 192'128 farmers. Although representing an overall decline of 1.2 percent, comparing this to the 20 percent decline seen in the previous season shows us that the rate of decline is levelling. In fact, strong growth is expected in the coming years as the region's 184'462 hectares of cotton growing land in conversion reaches organic certification.

India accounts for the vast majority (over 99 percent) of the region's total production, and 51 percent of global production. Madhya Pradesh produces almost half (47 percent) of India's organic cotton, followed by Odisha (26 percent), Gujarat (14 percent), and Maharashtra (11 percent). The decline in organic cotton production seen in India in recent years results partly from farmers transitioning to other, more lucrative organic crops, and partly from a small number of previously certified

farmers having been demoted back to in-conversion status as they resolve contamination problems. However, production is stabilizing, and strong growth is forecast over the next few years as the country's 172'180 hectares of land in conversion reaches organic certification.

In Pakistan, there was no certified production of organic cotton in 2016/17, but there were 12'283 hectares in conversion to organic. In Thailand, 4.2 metric tons of organic cotton fibre was produced by the Green Net Cooperative, a project involving 66 traditional fishing families.

United States

In the United States, 4'529 metric tons of organic cotton fibre were produced on 8'369 hectares by 58 farmers in 2016/17. This represents a growth of 26 percent over the previous season, and the United States now accounts for four percent of global organic cotton production. The Texas Organic Cotton Marketing Cooperative (TOCMC), a co-op of 35 family farmers based in the West Texas High Plains, accounted for 84 percent of the United States' organic cotton production in 2016/17. The remainder of production was spread between other farmers in Texas, New Mexico, and North Carolina. TOCMC, in particular, continues to transition additional acreage into organic production, with 496 hectares currently in transition.

Organic and textile standards

Organic cotton is grown within a rotation system that builds soil fertility, protects biodiversity, and is grown without the use of any synthetic chemicals or genetically engineered organisms. Organic cotton is subject to the national laws governing organic production including the European Union's Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products, the USDA National Organic Program (NOP) in the United States, and the National Programme for Organic Production (NPOP) in India.

Voluntary standards, the Global Organic Textile Standard (GOTS) and the Organic Content Standard (OCS) provide chain of custody assurance from the farm to the final product, with GOTS also addressing textile processing. In 2017, there were 3'643 and 5'024 facilities certified to OCS and GOTS, respectively.

Further reading

Textile Exchange (2018): Organic Cotton Market Report 2018. The Textile Exchange, Bath. Available at <https://textileexchange.org/downloads/2018-organic-cotton-market-report/>

Table 40: Organic cotton farmers, area and production 2016/2017

Region	Country	No. of farmers	Certified Organic Land Area [ha]*	Prod. of organic seed cotton [MT]	Prod. of organic cotton fibre [MT]	Organic fibre prod. Share [%]	Total in-conversion land area [ha]
Africa	Benin	2'715	3'384	1'739	699.3	0.60%	-
	Burkina Faso	7'369	3'731	1'210	491.4	0.42%	-
	Ethiopia	-	-	-	-	0.00%	173.50
	Mali	1'363	9'865	346	130.0	0.11%	569.00
	Senegal	277	92	10	4.3	0.00%	-
	Tanzania	4'337	16'883	10'041	3'773.0	3.21%	18'408.67
	Uganda	8'319	12'600	1'862	765.0	0.65%	-
Africa Total		24'380	46'555	15'209	5'863	4.99%	19'151
China Total		824	11'846	60'205	22'521.2	19.16%	5'108.42
Europe, Middle East & Central Asia	Egypt	360	542	4'707	1'741.5	1.48%	-
	Greece	-	1'153	2'500	850.0	0.72%	-
	Kyrgyzstan	1'009	6'929	20'096	8'019.0	6.82%	991.00
	Tajikistan	1'049	4'920	16'380	6'404.6	5.45%	175.00
	Turkey	196	3'863	19'353	7'741.3	6.59%	2'721.43
Middle East & Central Asia Total		2'614	17'407	63'036	24'756	21%	3'887
Latin America	Argentina	5	100	3	0.4	0.00%	-
	Brazil	308	496	125	43.0	0.04%	155.20
	Peru	161	630	879	338.1	0.29%	305.00
Latin America Total		474	1'226	1'007	381	0%	460
South Asia	India	192'060	386'464	175'954	59'470.2	50.60%	172'179.51
	Pakistan	2	1'056	-	-	0.00%	12'282.86
	Thailand	66	76	12	4.2	0.00%	-
South Asia Total		192'128	387'596	175'966	59'474	51%	184'462
USA Total		58	8'369	12'939	4'528.7	3.85%	496.00
Total		220'478	472'999	328'362	117'525	1	213'566

Source: Textile Exchange Organic Cotton Market Report 2018

*NOTE: The land area figures reported by Textile Exchange refer to land certified to an organic standard by a producer group growing organic cotton. However, the same piece of land can be, and increasingly is being, used to grow other organic crops in addition to cotton. Crop rotation is fundamental to organic agriculture but, with the low and falling cotton price in recent years, more and more farmers are moving away from cotton to grow other crops, such as marigold in India, which can fetch a higher price on the market. This means that reported land area figures do not necessarily reflect the land area used to grow only organic cotton, and may therefore seem disproportionately high compared to the organic cotton volumes harvested.

Milestones of the Organic Cotton Sector

Year	Milestone
1990	Organic receives legal status in the US.
1991	Organic receives legal status in the European Union.
1992	First certified organic cotton is produced in Turkey, certified by IMO.
1996	Patagonia becomes the first major apparel company to commit to converting 100 percent of its cotton to organic.
2002	Organic Exchange (now Textile Exchange) is founded.
2002	Organic & Fairtrade Competence Centre is launched by Helvetas and the Swiss State Secretariat for Economic Affairs, with an initial focus on cotton.
2004	OE 100 and OE blended standards, now the Organic Content Standard or OCS, is developed by Organic Exchange (now Textile Exchange).
2008	Global Organic Textile Standard (GOTS) certification system publicly launched.
2009	Global Organic Cotton Community Platform is launched by ICCO, the Swiss State Secretariat for Economic Affairs, Helvetas, and Textile Exchange.
2011	Dharwad Declaration for improvement of availability, access and quality of non-GM cotton varieties initiated by FiBL, bioRe. and University of Agricultural Sciences, Dharwad.
2011	Green Cotton Project launched by FiBL and Stiftung Mercator with a focus on seed breeding and genetic diversity for organic cotton.
2012	Global Organic Cotton Round Table launched in Hong Kong by Textile Exchange.
2012	Soil Association and GOTS launch first global campaign for organic cotton: "Have You Cottoned On Yet?"
2014	Launch of the Organic Cotton Accelerator, a non-profit supporting growth organic cotton through sector-wide collaboration and knowledge sharing.
2014	Launch of the Chetna Coalition, a coalition of brands and manufacturers acting collaboratively to produce value and reduce risk in organic cotton sourcing.
2014	First Life Cycle Assessment for Organic Cotton released by PE International (now thinkstep) and Textile Exchange.
2014	Organic & Fair Cotton Secretariat, supported by C&A Foundation, established to build responsible and credible organic cotton supply chains and enhance farmer livelihoods in Madhya Pradesh, India.
2015	Organic Fiber Council of the Organic Trade Association established.
2015	Textile Exchange launches aboutorganiccotton.org , a microsite dedicated to organic cotton.
2017	First draft of the Regenerative Organic Certification framework published.
2017	First Regional Organic Cotton Round Table for Turkey, Egypt & Central Asia hosted by Textile Exchange in Izmir, Turkey.
2018	First Regional Organic Cotton Round Table for West Africa hosted by Textile Exchange in Koudougou, Burkina Faso.

Compiled by Liesl Truscott, Evonne Tan, Lisa Emberson and Amish Gosai, all Textile Exchange

Global Market

The Global Market for Organic Food & Drink¹

AMARJIT SAHOTA²

I Introduction

The organic food market continues its positive trajectory, with global sales reaching 97 billion US dollars in 2017.³ Organic crops are now grown in almost every country, however demand remains concentrated. Figure 57 shows that North America and Europe comprise almost 90 percent of global revenues;⁴ these two regions account for just one quarter of the organic land area. Although internal markets are now developing, much of the organic crops grown in Asia, Africa and Latin America are destined for export markets.

2 North America

North America remains in the pole position, with the region's organic food market valued at 48.7 billion US dollars in 2017. The US has the largest market for organic foods in the world, worth 45.2 billion US dollars.

The North American organic food market is characterised by mergers, acquisitions and investments. Such activity has led to large operators, which operate at every level of the supply chain. Whitewave Foods, a leading organic food enterprise, was set up by the purchase and merger of several organic food entities. The French multinational Danone acquired Whitewave Foods for 12.5 billion US dollars in July 2016. General Mills, a large American food company, bought Annie's in 2014. It also owns a brace of other organic food brands. UNFI, a leading wholesaler and distributor of organic foods, acquired Supervalu in July 2018. Supervalu is a conventional supermarket chain, with about 3'000 American stores.

¹ This chapter has been prepared by ongoing research by Ecovia Intelligence (formerly known as Organic Monitor) on the 'The Global Market for Organic Food & Drink'. No part of this chapter may be reproduced or used in other commercial publications without written consent from Ecovia Intelligence. To request permission, write to:

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³ One US dollar corresponded to 1.1297 euros in 2017 (Average annual exchange rate according to the Central European bank).

⁴ Please note that there are some differences in organic food sales between the calculations of Ecovia Intelligence and those of FiBL due to different methodologies.

At the retail side, Whole Foods Market became the world's largest natural and organic food retailer by buying rivals in USA, Canada and the UK. It was bought by Amazon for 13.7 billion US dollars in June 2017. Amazon is now actively promoting the Whole Foods Market 365 and related private labels on its online platform.

Retailer private labels play an important role in North America. Kroger, the second largest food retailer, announced that sales of its Simple Truth private label products surpassed 2 billion US dollars in 2017. The Simple Truth brand houses a wide range of organic, natural and free-from products.

3 Europe

Valued at 39.6 billion US dollars, the European market for organic foods is the second largest in the world. Healthy growth continued in most country markets in 2017, with some countries (such as France and Denmark) reporting exceptional growth. As will be shown later in this book, there are significant differences in Europe between market sizes and sales per capita (Table 67).

Europe has the largest concentration of organic food retailers in the world. Most are located in Germany, France, and Italy. Much of the growth however is coming from mass market retailers, such as supermarkets, hypermarkets, and discounters. Almost all leading food retailers are marketing organic foods under their private labels. In countries like Switzerland and Denmark, retailer private labels generate the most sales for many organic product categories.

Organic foods are also making inroads in the catering and foodservice sector, with a growing number of restaurants, cafés, bars, and canteens using organic ingredients and / or serving organic products. Some governments are encouraging schools and government canteens to use organic ingredients.

Central & Eastern European (CEE) countries, such as Poland, Hungary, and Romania, have traditionally been important growers and exporters of organic crops. However, internal markets are slowly developing in these countries.

4 Other regions

The combined value of the organic food market in other regions (Asia, Australasia, Latin America, and Africa) totalled 8.7 billion US dollars in 2017.

Asia has the third largest market for organic products. Historically, the most important consumer markets were in Japan and South Korea; most developments are now occurring in the Chinese and Indian market. A number of organic food enterprises are being set up to cater for the local market. For instance, over ten organic dairy companies have been set up in China in the last decade to cater for the domestic market.

In Asia, a transition is taking place whereby countries are moving from an export to domestic focus. Organic foods are in demand as a growing middle class seeks food

products that are better for their health and avoid contentious agricultural chemicals. Food scandals and health scares are a major driver in Asia. China has a large market for organic products partly because the country has experienced a number of food scandals; these include selling rotten meat, sewage oil in food products, contaminated pork and beef, as well as numerous incidents of adulteration and counterfeiting.

Brazil has the largest market for organic products in Latin America. Similar to Asia, demand is coming from a growing middle class that is seeking healthy nutritious foods. Conventional food retailers comprise most organic food sales. Farmer markets are also important in Brazil, with many producers selling direct to consumers. Other Latin American countries, such as Argentina, Peru, Chile, and Colombia, have export-oriented organic food markets.

Australia and New Zealand also have important markets for organic products. Both countries are established as leading exporters; organic products include beef, lamb, kiwi fruit, apples, pears, onions, wine, and dairy products.

5 Challenges & outlook

Organic food sales have been growing at a healthy rate for several decades now, with sales edging towards 100 billion US dollars. As the industry reaches this significant milestone, it is worth noting the challenges ahead:

- Rising number of standards. The number of organic standards continues to increase. There are over 80 national standards and a higher number of private / voluntary standards for organic agriculture. Although there are single organic standards for the major trading blocs (Europe and the US), operators outside these regions have to consider multiple certification. New private standards like Regenerative Organic (introduced in March 2018¹) continue to be launched, adding to the certification complexity.
- Demand concentration. As shown in this book, organic crops are grown in 181 countries, however two regions generate roughly 90 percent of organic food sales. If the organic food market is to become truly international, organic foods should not be perceived as “luxury products” for the western world. Internal markets need to develop in Latin America, Asia, and Africa.
- Supply shortfalls. Organic food supply appears to be lagging behind demand. Organic food sales increased almost four-fold between 2003 and 2017; however, the amount of organic land area increased less. If this trend continues, then there are concerns about shortfalls in organic food supply.

¹ For more information see <https://regenorganic.org>.

- Trade agreements. The global organic food industry is also being affected by trade wars and geopolitics. For instance, the US and China have been locked in a trade war since 2017. This has hit exports of agricultural (conventional and organic) crops from US, including soybeans, corn, fruits, vegetables, nuts, and dairy products. Similarly, the UK organic food sector is likely to be affected by Brexit, since most organic raw materials are from other European countries. European countries are also the main destinations of organic food exports from the UK.
- Competing labels. Organic is the dominant eco-label, however the food industry now has over 200 labels that represent some ethical / sustainability attributes. Consumers now have a variety of options when they want to buy foods with health attributes and / or sustainability aspects. In terms of ethical labels, there is competition from Fairtrade, Non-GMO, Rainforest Alliance, etc. There is also competition from vegan foods, and free-from foods (gluten-free, dairy-free, etc.).¹

Sales breakdown of organic foods by major regions 2017

Source: Ecovia Intelligence 2019

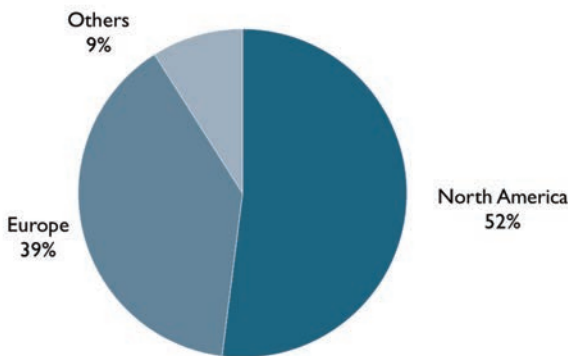


Figure 57: Sales breakdown of organic foods by major regions, 2017

Source: *The Global Market for Organic Food & Drink* (Ecovia Intelligence)

Note: All figures are rounded. Please note that there are some differences in organic food sales between the calculations of Ecovia Intelligence and those of FiBL

¹ Editors' note: For more information on voluntary standards, please see page 137.

Milestones of the Global Organic Market

Year	Milestone
1999	Global organic market data published for the first time by the International Trade Centre ITC, Geneva (Organic food and beverages: World supply and major European markets).
2001	Organic Monitor (now known as Ecovia Intelligence) formed to analyse the global market for organic products.
	Global organic food sales reach 20 billion US dollars.
	The Bio-Siegel national organic logo is launched in Germany.
2002	Japanese Agricultural Standard for organic foods is introduced.
2002	USDA National Organic Programme (NOP) is implemented.
2004	EU expansion leads to 14 percent rise in European organic farmland.
	Korean government introduces national organic programme.
2005	China introduces national organic standard.
2008	Global organic food sales surpass USD 50 billion US dollars.
2009	EU implements revised organic regulations.
	Brazil introduces national organic standard.
	US enters organic equivalency agreement with Canada.
	Europe temporarily overtakes North America to have largest organic food market.
2010	Introduction of the current EU organic logo.
2012	New US-EU organic equivalency agreement.
2013	Whitewave Foods acquires Earthbound Farm and becomes major organic food enterprise.
2014	Surge in demand for organic baby food gives China largest organic infant formula market.
2016	US passes GM labelling bill, whilst Non-GMO project product sales reach 20 billion US dollars.
2017	Amazon buys the world's leading natural & organic food retailer Whole Foods Market.

Compiled by Amarjit Sahota, Ecovia Intelligence

Standards, Legislation, Policies

Public Standards and Legislation

BEATE HUBER,¹ OTTO SCHMID,² VERENA BATLOGG,³ AND FLÁVIA MOURA E CASTRO⁴

The year 2018 showed a lot of dynamics with regard to organic standards and legislation. The European Union (EU) adopted the basic act of its new organic regulation, which will come into force in 2021. In 2019 and 2020, the secondary legislation – the delegated and implementing act for production, controls, and trade – will be drafted and adopted. In Russia, the law on organic production, which will come into force in 2020, was signed. In Ukraine, the organic law was adopted in August 2018, and it will come into force in August 2019. In Belarus, negotiations on the organic legislation have reached the final stage, and adoption is expected in the beginning of 2019.

Organic legislation worldwide: current situation

According to the FiBL survey on organic legislation and public standards, 93 countries had organic legislation in 2018. Some of these countries explicitly accept Participatory Guarantee Systems (PGS) in addition to so-called third party certification schemes. Countries with PGS recognized by IFOAM are indicated with an asterisk (*) in Table 41. Sixteen countries are in the process of drafting legislation. Data on legislation around the world were collected from various authorities and experts. The categorization of legislation as being “not fully implemented” or “fully implemented” was based directly on the feedback from the people interviewed, and the information was not subject to verification. We received responses from experts and authorities from the majority of the countries. It is assumed that the countries that did not respond had not passed legislation on organic production. It should be noted that some countries listed below have legislation, but do not enforce it. The indication “not fully implemented” therefore relates to countries that have only recently adopted legislation and are still in the process of finalizing its implementation, as well as countries that have adopted legislation but do not provide the resources necessary for its implementation.

Table 41 shows the list of countries that have legislation for organic agriculture, and Table 42 shows the countries that are in the process of drafting legislation. Please send comments or information about countries that are not listed to Beate Huber

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⁴ Flávia Moura e Castro, IFOAM – Organics International, 53113 Bonn, Germany, www.ifoam.bio

(beate.huber@fiBL.org). Organic legislation and public standards that are endorsed by the international organic movement are listed in the IFOAM Family of Standards.¹

Some countries have no organic legislation but have national or regional production standards. Such public standards provide a national or regional definition of organic products and are a reference point for certification activities; the East African Organic Product Standard is an example. They do not necessarily lead to the adoption of a national inspection and certification system, which would be supervised by the government. Table 43 shows that 29 countries in Africa, Asia, and Oceania, have adopted national or regional standards for organic agriculture.

Table 41: Countries with legislation on organic agriculture 2018

Region	Country	Remark
European Union (28) ²	Austria	Fully implemented
	Belgium	Fully implemented
	Bulgaria	Fully implemented
	Croatia	Fully implemented
	Cyprus	Fully implemented
	Czech Republic	Fully implemented
	Denmark	Fully implemented
	Estonia	Fully implemented
	Finland	Fully implemented
	France	Fully implemented
	Germany	Fully implemented
	Greece	Fully implemented
	Hungary	Fully implemented
	Ireland	Fully implemented
	Italy	Fully implemented
	Latvia	Fully implemented
	Lithuania	Fully implemented
	Luxemburg	Fully implemented
	Malta	Fully implemented
	Poland	Fully implemented
	Portugal	Fully implemented
	Romania	Fully implemented
	Slovak Republic	Fully implemented
	Slovenia	Fully implemented
	Spain	Fully implemented
	Sweden	Fully implemented
	The Netherlands	Fully implemented
	United Kingdom	Fully implemented
Non-EU Europe (14)	Albania	Fully implemented
	Belarus	Not fully implemented
	Iceland	Fully implemented
	Kosovo	Not fully implemented
	Liechtenstein	Fully implemented
	Macedonia, FYROM	Fully implemented
	Moldova	Fully implemented
	Montenegro	Fully implemented
	Norway	Fully implemented

¹ For more information about the IFOAM family of standards, please visit the website (add link to: <https://www.ifoam.bio/en/ifoam-family-standards-0>).

² Official Journal of the European Union (2007): Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. Available at eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF

Standards, Legislation, Policies › Organic Rules Update

Region	Country	Remark
	Serbia	Fully implemented
	Switzerland ¹	Fully implemented
	Russia	Not fully implemented
	Turkey	Fully implemented
	Ukraine	Not fully implemented
Asia & Pacific Region (27)	Armenia	Not fully implemented
	Australia	Fully implemented
	Azerbaijan	Not fully implemented
	China	Fully implemented
	French Polynesia*	Fully implemented
	Georgia	Fully implemented
	India ^{2*}	Fully implemented
	Indonesia	Fully implemented
	Iran	Fully implemented
	Israel	Fully implemented
	Japan ³	Fully implemented
	Jordan	Not fully implemented
	Kazakhstan	Not fully implemented
	Korea, South	Fully implemented
	Lebanon	Fully implemented
	Malaysia	Fully implemented
	Mongolia	Not fully implemented
	New Caledonia*	Fully implemented
	New Zealand ⁴	Fully implemented
	Philippines	Not fully implemented
	Saudi Arabia	Fully implemented
	Solomon Islands	Not fully implemented
	Taiwan	Not fully implemented
	Tajikistan	Not fully implemented
	Thailand ⁵	Fully implemented
	United Arab Emirates	Not fully implemented
	Vietnam	Not fully implemented
The Americas & Caribbean (22)	Argentina	Fully implemented
	Bolivia*	Fully implemented
	Brazil*	Fully implemented
	Canada	Fully implemented
	Chile*	Fully implemented
	Colombia	Fully implemented
	Costa Rica*	Fully implemented
	Cuba	Not fully implemented
	Dominican Republic	Fully implemented
	Ecuador*	Fully implemented
	El Salvador	Not fully implemented
	Guatemala	Fully implemented
	Honduras	Fully implemented
	Jamaica	Not fully implemented

¹ Swiss legislation is available at www.admin.ch/ch/d/sr/c910_18.html

² Information on the National Programme for Organic Production (NPOP) in India is available at www.apeda.gov.in/apedawebsite/organic/index.htm

³ Japanese Agriculture Standards (JAS) for organic plants and organic processed foods are available at: http://www.maff.go.jp/e/policies/standard/jas/specific/attach/pdf/criteria_o-1.pdf

⁴ New Zealand Food Safety Authority (NZFSA) Official Assurance Programme for Organic Products: www.foodsafety.govt.nz/industry/sectors/organics

⁵ Homepage of the Thai National Bureau of Agricultural Commodity and Food Standards: www.acfs.go.th/eng/index.php

Region	Country	Remark
	Mexico*	Fully implemented
	Nicaragua	Fully implemented
	Panama	Fully implemented
	Paraguay*	Fully implemented
	Peru	Fully implemented
	Uruguay*	Fully implemented
	USA	Fully implemented
	Venezuela	Not fully implemented
Africa (2)	Morocco	Fully implemented
	Tunisia	Fully implemented

*Organic regulations recognizing Participatory Guarantee Systems (PGS)

Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2019

Table 42: Countries in the process of drafting legislation 2018

Region	Country
Europe (1)	Bosnia & Herzegovina
Asia and Pacific Region (6)	Bangladesh Bhutan Kyrgyzstan Nepal Pakistan Sri Lanka
The Americas & Caribbean (2)	Grenada St. Lucia
Africa (7)	Algeria Burundi Egypt Kenya South Africa Sudan Uganda

Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2019

Table 43: Countries with a national or regional standard but without a national legislation 2018

(Regional standards are indicated by a footnote)

Region	Country
Asia and Pacific Region (20)	Bahrain Bhutan Brunei Darussalam Fiji ^a Kiribati (Micronesia) ^a Kyrgyzstan Laos Marshall Islands (Micronesia) ^a Micronesia ^a Nauru (Micronesia) ^a Nepal Palau (Micronesia) ^a Papua New Guinea ^a Qatar Samoa ^a Singapore

	Solomon Islands ^a
	Tonga ^a
	Tuvalu ^a
	Vanuatu ^a (Melanesia)
Africa (9)	Burundi ^b
	Egypt
	Kenya ^b
	Rwanda ^b
	South Africa
	Tanzania ^b
	Uganda ^b
	Zambia
	Zimbabwe

^a Pacific Organic Standard; ^b the East African Organic Products Standard

Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2019

The Codex Alimentarius Guidelines: Recent developments¹

The need for clear and harmonized rules has not only been taken up by private bodies, such as IFOAM – Organics International, and state authorities, but also by United Nations organizations, including the Food and Agriculture Organization (FAO), the World Health Organization (WHO), and the United Nations Conference on Trade and Development (UNCTAD). The Codex Alimentarius Commission approved plant production guidelines in June 1999 and animal production guidelines in July 2001. They also provide guidance to governments on developing national legislation for organic food. The latest update of the guidelines was done in 2013. The history of the work on the Codex Alimentarius guidelines on organic agriculture can be found in previous editions of “The World of Organic Agriculture” (Huber et al. 2018).

Recent work by the Codex Committee for Food Labelling (CCFL) in the area of organic agriculture is related to organic aquaculture. In 2011, it was agreed that organic aquaculture and seaweed production would be included as a new focus area. However, in 2016, after discussions at several draft working paper meetings, the Codex Committee for Food Labelling proposed to either discontinue the work on organic aquaculture guidelines or identify a different subsidiary body to continue the work. No compromise could be found on the most controversial issues, such as the use of juveniles, the use or non-use of recirculation or containment systems, breeding techniques, feeding sources, the ban or restriction of hormones, and conversion periods. Therefore, no further work will be done on aquaculture rules in the CCFL.

As a result of these discussions in Codex, IFOAM reconsidered their aquaculture standards, and, in November 2017, the General Assembly of IFOAM – Organics International passed a motion that organic aquaculture may include environmentally integrated types of recirculation systems with additional restrictions.

¹ Information about Codex Alimentarius is available <http://www.fao.org/docrep/005/Y2772E/Y2772E00.HTM>

The Codex organic guidelines were not put on the agenda for the 2017 and 2019 Codex Committee for Food Labelling (CCFL) meetings as none of the national member organisations of Codex Alimentarius have asked for an urgent revision.

Import requirements of major economies

The major import markets for organic products are the European Union, the United States, Canada, and Japan. All of these markets have strict regimes for the importation of organic products. In the European Union, the United States, and Japan, products may only be imported if the certifying agency has been approved by the respective competent authority. The approval of certification bodies requires compliance or equivalency with the requirements of the importing countries, which can be achieved through

- (a) bilateral agreements between the exporting country and the target import country, or
- (b) direct acceptance of the certifying agency by the target import country.

Bilateral agreements between the exporting and the target import country

Most importing countries, including the United States, the European Union, Canada, and Japan have options for bilateral recognition (i.e., the option to confirm that another country's control system and its standards are in line with domestic requirements and that the products certified in those countries can be sold on the national market). Bilateral agreements are largely political agreements that depend on political will and negotiations between the governments, but they are also based on technical assessments.

The United States and the European Union have recognized each other's national organic standards and control systems, except for animal products from the European Union and apples and pears from the United States, which require extra verification. Additional specifications are agreed upon for wine. In addition, products from aquaculture production are not yet included in this agreement.

In 2009, the United States and Canada concluded their first bilateral agreement. Producers and processors, who are certified according to the US National Organic Program (NOP)¹ standards by a certification body recognized by the United States Department of Agriculture (USDA), do not have to be certified by the Canada Organic Product Regulation (COPR) standards to sell their products as organic in Canada. Likewise, Canadian organic products certified to COPR standards may be sold or labelled in the United States as organically produced.² The United States has further concluded bilateral agreements with Japan, South Korea, and Switzerland

¹ National Organic Program (NOP) www.ams.usda.gov/AMSV1.0/NOP

² There are exemptions to the agreements between the US and Canada relating to sodium nitrate, hydroponics and livestock for the United States and antibiotics for livestock in Canada.

Canada has signed equivalency agreements with the United States, the European Union, Costa Rica, Japan, and Switzerland.

The European Union currently recognizes thirteen countries¹ as being equivalent to the European Union's system (known as the Third Country list), the latest country added is Chile, with whom a trade agreement was established in 2017.

The United States has accepted several foreign governments' accreditation procedures. Certification bodies in India, Israel, and New Zealand, which meet the United States requirements, can be accredited by their respective governments and sell products as organic in the US, even though they are not directly accredited by the USDA. This level of recognition only covers accreditation procedures; the respective certification bodies still have to meet the requirements of NOP to issue certificates accepted by the United States. An overview of organic trade legislation and agreements between the US and other countries is available on the Organic Trade Association (OTA) website at www.globalorganictrade.com.

Acceptance of certifying agencies by the target importing country

The United States, the European Union, and Japan have options to recognize certification bodies operating outside of their countries. The technical requirements for achieving such recognition are difficult to meet, and the associated fees are high. Maintaining recognition and/or the necessary accreditation requires substantial financial capacity and personnel from the certification agency.

Products are only granted import into the European Union if they have been certified by an inspection body or authority recognized by the European Commission. In updates to EU regulation 1235/2008, the European Union published the list of approved control bodies and authorities recognized for applying equivalent standards and control schemes in non-EU countries. Certification from recognized control bodies has been accepted for imports to the European Union since July 1, 2012.

In the US system, it is not relevant whether the certification body is based in the United States or elsewhere; any certification body can be approved to operate a US certification program as long as inspections are conducted by inspectors trained in NOP requirements using NOP-based questionnaires. Only certificates issued by certification bodies accredited by the United States Department of Agriculture (USDA) are accepted. Approximately 80 agents are currently authorized to certify farms and businesses under the USDA organic legislation. Most USDA-accredited certifying agents are allowed to certify farms and businesses anywhere in the world.

¹ Argentina, Australia, Canada, Chile, Costa Rica, India, Israel, Japan, New Zealand, Republic of Korea, Switzerland, Tunisia, and the United States.

Literature

- Codex Alimentarius (2013): Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods. (GL 32 – 1999, Rev. 1 – 2001, Rev. 2013). Rome.
<https://tinyurl.com/y8mpxqmw>
- Commission Regulation (EC) No 1235/2008 of 8 December 2008 laying down detailed rules for implementation of Council Regulation (EC) No 834/2007 as regards the arrangements for imports of organic products from third countries; Consolidated version: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02008R1235-20171024>
- Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control; Consolidated Version: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02008R0889-20170521>
- Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91; Consolidated version: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02007R0834-20130701>
- European Commission (2008) Guidelines on imports of organic products into the European Union. 15.12.2008. Rev.1. European Commission, Brussels. Available at https://ec.europa.eu/agriculture/organic/sites/orgfarming/files/docs/body/guidelines_for_imports_en.pdf
- European Parliament and Council (2018) Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007. Available at <https://eur-lex.europa.eu/eli/reg/2018/848/oj>
- Huber, Beate, Otto Schmid and Verena Bartlogg (2018): Standards and Regulations. In: Willer, Helga and Julia Lernoud (Eds.) (2018): The World of Organic Agriculture. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn. Available at <https://www.organic-world.net/yearbook/yearbook-2018/pdf.html>
- Organic Trade Association (2018): Global Organic Trade Guide, OTA, Washington DC. Available at www.globalorganictrade.com
- Schmid, Otto (2007) Developments of Standards for Organic Farming. In: Lockeretz, W. (Editor): Organic Farming – An International History. CABI International. Oxford. 152-174
- USDA (2018): Organic Regulations. The USDA website, USDA, Washington DC. Available at <https://www.ams.usda.gov/rules-regulations/organic>

Milestones of Standards and Legislation

Year	Milestone
1980	First IFOAM Basic Standards.
1983	Austria adopts first national rules for organic agriculture (Österreichisches Lebensmittelbuch (Codex) Kapitel A.8).
1990	US: Organic Foods Production Act of 1990. In 2002, this act established the legal basis for the National Organic Program (NOP) to enforce agricultural products sold, labeled, or represented as “organic” within the U.S.
1991	European Union: Council Regulation (EEC) 2092/91 on organic production is published.
1992	Adoption of IFOAM criteria, a standard for certification bodies.
1993	European Union: Council Regulation (EEC) 2092/91 on organic production comes into force.
1997	US: First detailed draft for organic standards published by the United States Department of Agriculture (USDA).
1999	Codex Alimentarius “Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods” are introduced.
2000	Council Regulation (EEC) 2092/91 on organic production is amended to include organic husbandry rules. Japanese Agricultural Standards (JAS) for organic plants and organic processed foods of plant origin adopted.
2001	Codex Alimentarius organic guidelines for animal husbandry are introduced.
2002	US: National Organic Program (NOP) comes into force (start of implementation).
2008	European Union: Council regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 comes into force.
2010	Launch of IFOAM's new Organic Guarantee System.
2018	European Union: Adoption of Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repeals Council Regulation (EC) No 834/2007.

Compiled by Beate Huber and Otto Schmid, FiBL

Participatory Guarantee Systems in 2018

Joelle Katto-Andrighetto,¹ Cornelia Kirchner,² Flávia Moura e Castro,³ and Federica Varini⁴

Participatory Guarantee Systems (PGS) are locally-focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks, and knowledge exchange (IFOAM definition, 2008⁵). PGS are particularly suitable for small-scale farmers and local markets, and, since 2004, the number of PGS initiatives and producers involved in them has been growing on all continents (for definitions see end of article).

IFOAM – Organics International is the only organization collecting data about PGS on a global level. A list of milestones related to the IFOAM PGS activities can be found at the end of the article. To date,⁶ we have recorded in our PGS database more than 240 PGS initiatives in 67 countries, with at least 391'078 producers involved and 142'955 producers certified.

Development of PGS-certified producers worldwide

Source: IFOAM – Organics International 2019

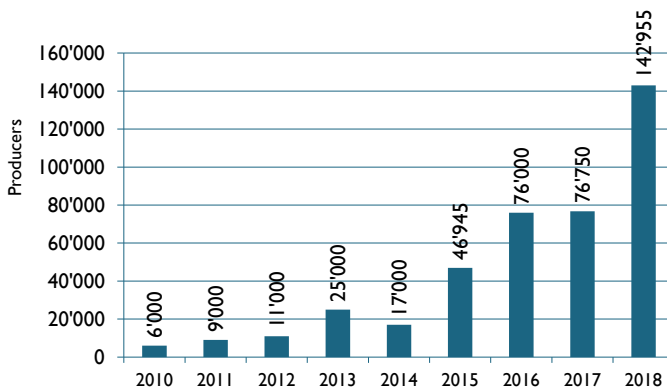


Figure 58: Development of PGS-certified producers worldwide

Source: IFOAM – Organics International

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⁵ More information about the IFOAM definition of organic agriculture is available on the IFOAM website at <https://www.ifoam.bio/en/organic-landmarks/definition-organic-agriculture>

⁶ Data compiled in October 2018

The highest number of producers involved in PGS can be found in India, where a total of 333'144 producers were counted. At least 113'090 of them are certified producers. There are only three other countries with more than 5'000 producers involved in PGS: Bolivia (with 9'284 producers involved and 8'164 certified¹), Uganda (with 9'273 producers involved and 2'216 certified) and Brazil (with at least 5'401 producers certified²).

Regional development

Asia

Asia counts more PGS producers than any other region, with at least 342'799 producers involved, of which 115'549 are PGS certified. This development is related to the expansion of PGS in the whole region in the past years, but it is mostly due to the increasing numbers of farmers joining PGS in India, in particular through the governmental initiative PGS-India, implemented by the National Center of Organic Farming (NCOF). The new regulation, which has been enforced since July 2018, makes organic certification compulsory and recognizes PGS-India and the National Program for Organic Production (NPOP) as the two possible systems to verify compliance with organic standards. Between 2017 and 2018, the number of producers involved in PGS in the country has increased by 24 percent, while the number of PGS certified producers increased by 58 percent. After India, the highest numbers for producers involved in PGS in Asia are found in South Korea (2'000) and the Philippines (1'970). In terms of certified producers, Thailand (1'116) has the second highest number in the region, after India. Furthermore, Asia is currently the region with the most PGS initiatives under development (38).

Latin and Central America

Latin and Central America, which has 18'220 certified producers among 23'418 producers involved, is the region with the highest number of operational PGS initiatives: 156. Brazil (26) has the most, followed by Chile (15), which has seen an increase of more than 50 percent in operational initiatives between 2017 and 2018. Both countries recognize PGS as one of the two possible systems to verify compliance with organic standards in their regulations, and have recently signed a memorandum of understanding aimed at promoting efforts to facilitate the trade of organic produce, including PGS certified products. Bolivia remains the country in the region with the highest number of producers involved (9'284) and certified (8'164). It is followed by Brazil (with at least 5'401 producers certified) and Peru (with 3'244 producers involved and 3'014 producers certified).

¹ The figures are from 2016

² Data for Brazil: available online and regularly updated by the Competent Authority (<http://www.agricultura.gov.br/assuntos/sustentabilidade/organicos/cadastro-nacional-produtores-organicos>). Information on producers that are involved in PGS but have not yet received their certification is not included, as well as the number of PGS initiatives that are under development.

Africa

In Africa, it is estimated that there are 17'795 producers involved, 4'650 of whom are certified. There are 25 PGS initiatives under development in this region, which is a sharp decrease compared to the data reported in 2017 (56). This decrease is related to the consolidation of various PGS groups (previously included in the survey as PGS initiatives) under few PGS initiatives.

Oceania

In Oceania, there are at least 3'905 producers involved. Of these, 2'633 are certified, which represents a significant increase compared to the figures for 2017 (1'385). This is mostly related to developments in Vanuatu, which is now the country in the region with the highest number of PGS certified producers (1'184), followed by Fiji (1'156, from 2'199 producers involved).

North America and in Europe

Due to an unfavorable legal framework, PGS initiatives are less widespread in North America and in Europe, where the figures tend to be stable over the years. In Europe, we have seen a modest increase compared to data reported for 2017, with 1'394 producers involved, the majority of which are located in France (1'070 certified producers).

Definitions used

PGS initiative: Entity or organization that has defined/chosen/adopted a common set of standards for organic agriculture, a common set of procedures (i.e. a common manual describing those procedures), and a coordination body (i.e. secretary, association, etc.). This coordination body has the overview of the data coming from the regional/sub groups, local groups or from the individual farmers directly. A PGS initiative will also typically use one common label to identify the products of their farmers as organic and/or a logo that is used by other PGS initiatives, such as a national/regional organic logo.

Explanatory note: A PGS initiative can be composed of one single local group, especially at the initial stage of development. Even though it is common for PGS initiatives to be composed of various local groups, it is also possible that the PGS producers in a PGS initiative work together based on geographic proximity or technical expertise, without forming a local group.

PGS status: Setting up a PGS is a long process and requires two or more years before the producers involved can be fully certified. In our data collection, we distinguish between two situations:

- (a) **Operational PGS:** a PGS that is implementing a functional certification system to certify their producers and has emitted at least one certificate to one farmer.

- (b) **PGS under development:** a PGS that is in the process of developing a functional certification system to certify their producers and has not yet emitted any certificates.

Number of producers within a PGS: There are two categories of producers considered for a PGS initiative:

- (a) **Producers involved:** Farmers and processors that are involved in a PGS either as certified or as not having yet received certification, including those that are in the process of conversion and that are expecting/intending to get a PGS certificate in the near future.
- (b) **Producers certified:** Farmers and processors that have been verified through a PGS and that have received a PGS certificate or a proof of certification, if they are approved as part of a group within a PGS initiative.

General notes on the data

Every two years IFOAM – Organics International conducts a global PGS survey. The last survey was conducted in 2017; therefore, the figures for most of the PGS are from November 2017. Additional data were collected through bilateral communication with PGS initiatives, competent authorities and PGS experts. If new data is not received, data from the previous year or older data is used. When PGS are recognized under a national organic regulation, data that is collected and published by competent authorities is used. This is the case in Brazil,¹ Chile,² Bolivia,³ Costa Rica,⁴ Mexico,⁵ and India.⁶

¹ Ministério da Agricultura, Pecuária e Abastecimento, Brasil: Cadastro Nacional de Produtores Orgânicos. Available at <http://www.agricultura.gov.br/assuntos/sustentabilidade/organicos/cadastro-nacional-produtores-organicos>

² Servicio Agrícola y Ganadero, Chile: Certificación de Productos orgánicos. Available at <http://www.sag.cl/ambitos-de-accion/certificacion-de-productos-organicos/132/registros>

³ Consejo Nacional de Producción Ecológica (UC-CNAPE), email communication, data for 2016.

⁴ Servicio Fitosanitario del Estado, MAG, Costa Rica: Lista Oficial de Grupos en Certificación Participativa. Available at https://www.sfe.go.cr/DocsARAO/Lista_inscritos_Certificacion_Participativa.pdf

⁵ Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria, Mexico: Padrón de Organismos de Certificación Participativa de productos orgánicos a pequeños productores y producción familiar. Available at <https://www.gob.mx/senasica/documentos/padron-de-organismos-reconocidos-para-otorgar-certificacion-participativa-de-productos-organicos-a-pequenos-productores>

⁶ Department of Agriculture & Cooperation, India: Participatory Guarantee System for India. Available at <http://pgsindia-ncof.gov.in>

Table 44: Participatory Guarantee Systems 2018

Continent	Country	PGS operational	PGS under development	Producers certified	Producers involved
Africa	Benin	1	0	177	306
	Burkina Faso	1	0	371	371
	Burundi	0	1	0	2'027
	Ethiopia	0	1	0	30
	Kenya	6	9	178	930
	Morocco	0	1	0	30
	Mozambique	1	0	19	90
	Namibia	1	0	6	10
	Nigeria	1	0	47	47
	Rwanda	0	1	0	315
	Senegal	0	1	0	500
	South Africa	4	5	271	371
	Tanzania	3	0	515	2'045
	Uganda	14	6	2'216	9'273
	Zimbabwe	1	0	850	1'450
Total Africa		33	25	4'650	17'795
Asia	Bangladesh	0	1	0	123
	Bhutan	0	1	0	100
	Cambodia	4	3	177	222
	China	0	4	0	167
	India	2	0	113'090	333'144
	Indonesia	2	0	147	781
	Japan	0	1	4	7
	Kyrgyzstan	0	1	0	822
	Laos	1	2	86	288
	Myanmar	1	7	44	110
	Nepal	3	1	39	300
	Pakistan	0	1	0	0
	Philippines	5	9	266	1'970
	South Korea	1	0	114	2'000
	Sri Lanka	1	1	111	756
	Taiwan	1	0	60	60
	Thailand	5	6	1'116	1'611
	Vietnam	3	0	295	338
Total Asia		29	38	115'549	342'799
Europe	Belgium	1	1	80	191
	Bosnia	0	1	0	0
	France	1	0	981	1'070
	Hungary	0	1	0	0
	Italy	2	2	49	49
	Spain	2	1	17	56
	Turkey	0	1	0	28
Total Europe		6	7	1'127	1'394
Latin America	Argentina	1	1	20	40
	Belize	0	1	0	5
	Bolivia	1	0	8'164	9'284
	Brazil	26	0	5'401	5'401
	Chile	15	0	233	233
	Colombia	6	4	312	526
	Costa Rica	5	0	31	82
	Cuba	0	1	0	252
	Ecuador	4	1	765	2'578
	Guatemala	0	1	0	0
	Mexico	7	1	113	273
	Paraguay	1	0	47	1'000
	Peru	8	4	3'014	3'244
	Puerto Rico	0	1	0	0
	Uruguay	1	0	120	500
Total Latin America		75	15	18'220	23'418
North America	Canada	1	0	16	17
	USA	1	0	760	1'750
Total North America		2	0	776	1'767
Oceania	Australia	1	0	14	19
	Cook Islands	0	1	0	13
	Fiji	4	2	1'156	2'199
	French Polynesia	1	0	14	14
	Kiribati	1	0	0	120
	New Caledonia	1	0	88	179
	New Zealand	1	0	150	150
	Samoa	0	1	0	0
	Solomon Islands	1	0	27	27
	Vanuatu	1	0	1'184	1'184
Total Oceania		11	4	2'633	3'905
World		156	89	142'955	391'078

Source: IFOAM – Organics International

Milestones of the Work of IFOAM – Organics International to Promote and Support PGS

Year	Milestone
2004	First International Workshop on Alternative Certification, in Torres, Brazil.
2005	Launch of the first PGS Case Studies, showcasing PGS initiatives from Brazil, India, New Zealand and USA (updated in 2008 to include one case from France).
2006	Nomination of the international PGS Task Force, later established as the PGS Committee of IFOAM – Organics International (2009).
2007	Launch of PGS concept document “Shared Visions, Shared Ideals” and Publication of the first compilation of PGS case studies.
2008	Definition of PGS, launch of the PGS Guidelines and the PGS Self Evaluation Form (SEF).
2009	First issue and launch of the Global PGS Newsletter, published on a monthly basis until 2013 (then bimonthly).
2011	Launch of the Annual PGS Survey and of the Official IFOAM PGS Recognition program, Publication of the first IFOAM Policy Brief on How Governments Can Support Participatory Guarantee Systems, Approval of the first PGS Standards in the IFOAM Family of Standards.
2012	Launch of the introductory brochure on Organic Agriculture and Participatory Guarantee Systems.
2015	Publication of the Regulation Toolkit for Governments, with recommendations on requirements and procedures for PGS approval.
2016	Launch of the first PGS educational video “PGS: A Guide to Participatory Guarantee Systems for Organic Agriculture”; Launch of the online map of PGS Initiatives.

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Policies supporting the organic sector

FEDERICA VARINI¹ AND JOELLE KATTO-ANDRIGHETTO²

From private sector to the political arena: the rise of organic regulations

Although organic farming as a concept has existed for almost 100 years, it has only garnered significant attention from consumers, environmentalists, farmers and ultimately policy-makers worldwide since the mid-1980s. This turning point coincided with increasing concerns about the negative environmental impacts brought by the industrialization of the agricultural sector after World War II.

The development of national and regional regulations followed a similar path in many states, and it was characterized by a progressive shift of decision making from the private sector to government authorities. Initially set by private scheme owners, mainly organic farmers' organizations, in the 1980s, organic standards started to become part of a legislative process that brought the enforcement of national and regional organic regulations to help facilitate international trading. For more information, please see the chapter by Huber et al., page 152.

Public money for public good

At the same time, an increasing number of governments started recognizing the potential of organic agriculture to contribute towards their sustainability goals and began supporting organic agriculture beyond regulation.

Despite the fact that state support given to organic agriculture is overall still very low compared to what is dedicated to conventional agriculture, there are interesting examples and a growing number of government policies and programs that support organic agriculture development, such as subsidy schemes, market development support, capacity building and research investment.

Europe

The leading continent in terms of public support to organic agriculture has always been Europe, and more precisely the European Union. Many western and central European countries introduced conversion aid schemes and other forms of financial support for organic farmers on a national or regional basis between 1987 and 1993. With the legal definition of organic farming (Council Regulation (EEC) No 2092/91 on organic production), it became possible to include organic farming as an option under the agri-environment programmes (Council Regulation (EEC) No 2078/92) and other

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measures of the rural development programs. These measures provided a unified approach for supporting organic agriculture, particularly through the introduction of support for the conversion to and maintenance of organic production.

Currently, in the European Union, the Common Agriculture Policy remains one of the key policy instruments that supports the development of organic farming. Nevertheless, over time, organic sector support has extended into other policy areas, such as research, market development, public procurement, etc. By the mid-1990s, a diversified set of support measures started to merge into broader policy strategies such as national or regional organic action plans.

A similar tendency can also be seen beyond Europe, where, over the last 20 years, national or regional organic policies have developed and diversified as a result of increasing acceptance by governments, who see that organic agriculture offers sustainability solutions. At the same time, the organic sector's capacity to advocate successfully with government institutions has increased.

Asia

In Asia, public support for organic agriculture is relatively recent compared to Europe. Nevertheless, impressive efforts in the form of comprehensive national organic agriculture development strategies have been undertaken by a number of countries including the Philippines, Bhutan, several Indian states (particularly Sikkim, Kerala, and Karnataka), and Taiwan. In 2010, the Philippines adopted the Organic Agricultural Act (Republic Act 10068), which established a structural framework and support for building the organic sector. This policy also includes organic regulation provisions, and, above all, it laid the foundation for a strategic national plan for organic agriculture for the period 2012 to 2016.

Another outstanding example is the Indian State of Sikkim, where political commitment to support organic farming began in 2003 and was consolidated in 2010 with the design of the Sikkim Organic Mission, a roadmap that detailed all the measures necessary to achieve the target of becoming a fully organic state, which was achieved in 2015.

In general, in India, both the federal government and individual states have taken unprecedented initiatives to support organic agriculture. In 2015, the federal government launched the Paramparagat Krishi Vikas Yojana, a programme that packages several types of support measures for organic agriculture, which are specifically targeted at small-scale producers, and the adoption of Participatory Guarantee Systems.

North America

The US is in general characterised by a low level of market interventionism in the agricultural sector and the government prefers to let market forces drive the

agricultural sector and market development. Support measures target mainly research, insurance schemes and partial coverage of certification costs.

The 2014 US Farm Bill¹ signalled an important achievement for the American organic sector, committing substantial budget to research and direct support to farmers in the form of reimbursement of annual certification costs. The bill also increased funding for the National Organic Program (NOP) and improved the insurance scheme for organic crops. However, there were still significant inequalities between organic and conventional producers. In 2016, the United States Department of Agriculture (USDA) eliminated most of these disparities and made the application process easier and more affordable for diversified small farms.

In Canada, the province of Quebec was the first province to ensure government support for organic. It started in 1989 with a program allocating funds for research, extension and support for the establishment of sector organizations. At the federal level, the Organic Agriculture Centre of Canada (OACC) at Dalhousie University, in collaboration with the Organic Federation of Canada has received, since 2009, ground-breaking federal government funding for implementing several research programs under the Organic Science Cluster.

Latin America and the Caribbean

In Latin America, policy support for organic agriculture has generally been very low. Policy interventions have mainly focused on developing national organic regulations, and policies in support of family farming are still recent, many launched at the beginning of this millennium. Most of these initiatives do not yet constitute state policies; they are programs or government initiatives, which means that there are risks regarding their institutionalization and permanence.

Some noticeable exceptions are the Brazilian National Policy for Agroecology and Organic Production (PNAPO, Federal Decree No 7,794),² which was implemented in 2012, and the organic public school procurement programme, *Programa Nacional de Alimentação Escolar* (PNAE) approved as legislation in 2009 (Law 11.947/2009). Another outstanding example is Cuba with its Urban, Suburban and Family Agriculture Programme, which started in 1997 and is still running today. This programme was one of the first and most important Cuban strategies responding to the food crisis that followed the collapse of the Soviet Union and has, over years, established a stable and central role in stimulating the adoption of organic agriculture and agroecology across the island.

¹ The 2018 Farm Bill, approved on the 12th December 2018, replaces the 2014 Farm Bill continues to support the organic sector.

² In Portuguese: *Política Nacional de Agroecologia e Produção Orgânica*. Full text (in Portuguese) available at: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/decreto/d7794.htm. Accessed 10/May/2018

Additionally, many regional and municipal governments have provided a conducive framework for public support for organic, again covering various types of strategies and detail. In Mexico for example, several states (e.g., Zacatecas, Chiapas, Oaxaca, and the federal district of Mexico City) have local laws to establish programs to promote organic agriculture.

Africa

In Africa, governments have traditionally not had sufficient resources to support organic agriculture development, so it was mostly achieved through foreign aid. Tunisia is a clear exception, with an impressive sector growth - particularly an impressive export value growth - in the past 10 years, following the enforcement of the Organic law in 1999, which made considerable public investments available for organic research and extension at a very early stage of development of the sector.

Oceania

Government policies in Australia and New Zealand generally do not intervene in the agriculture sector, and, therefore, pro-organic policies are virtually non-existent.

Political interest for organic agriculture is emerging in the islands of the Pacific Community where there are some interesting initiatives. Before 2008, there was no legal framework on organic agriculture in the Pacific, nor a supportive political framework or a sector development strategy under which the main organic actors could cooperate with each other. With the financial support of the International Fund for Agricultural Development (IFAD) and technical assistance from IFOAM – Organics International, the Pacific Regional Organic Task Force (ROTF) developed the Pacific Organic Standards (POS). The ROTF was a technical group representing all sectors and countries and territories of the Pacific Islands that were involved in organic. Another adhoc group consisted of interested Pacific leaders, called the Pacific High Level Organics Group (PHLOG), providing high-level political support and advocacy. The standard was endorsed in 2008 by the PHLOG and following this by the Heads and Ministers of Agriculture of the region. Subsequently, the Secretariat of the Pacific Community (SPC) supported the development of the Pacific Organic and Ethical Trade Community (POETCom), a multi stakeholder network that grew from the ROTF. POETCom developed an organic guarantee and labelling system and in 2013 developed a regional brand “Organic Pasifika”. Although supportive policy frameworks are starting to develop across several territories and countries of the Pacific Community, the POS has only been legally recognized and adopted to national legislation in French Polynesia (2011) and New Caledonia (2017).

Municipalities in support of organic farming

A recent trend is that municipalities and cities play an increasing role in supporting the development of the organic sector while legislating on broader objectives related to sustainable growth and development of urban areas. In the Philippines for instance,

the League of Organic Agriculture Municipalities and Cities (LOAMC), which was created in 2012 and which comprises around 120 members, showcases excellent examples of integrated urban management and aims to mainstream organic farming support at the municipal and city level within the country. Recently, LOAMC became a technical consultant for the national Organic Agriculture Board, which formulates and supervises the implementation of organic agriculture policies at the national level. In Europe, the 'Organic City Network Europe', which was created in 2016, provides a platform for cities to cooperate on issues such as: the future of the Common Agriculture Policy (CAP), regional and local food supply chains, green public procurement (GPP) policies, research and innovation, the true cost of food, increasing the transparency of supply chains, and access to land for new organic farmers.

Online references

A global overview of policies supporting organic agriculture worldwide is available in the Global Policy Toolkit on Public Support to Organic Agriculture.¹

¹ The toolkit can be downloaded free of charge from the IFOAM – Organics International website at <https://www.ifoam.bio/en/global-policy-toolkit-public-support-organic-agriculture>

Milestones of Policies Supporting the Organic Sector

Year	Milestone
1980	IFOAM basic standards published, which formed the basis for many national legislations.
1983	Organic farming is mentioned in the Austrian Codex Alimentarius. ¹
1981	French public authorities acknowledge the existence of "agriculture that does not use chemicals or synthetic pesticides" within the framework of the Agricultural Orientation Act of July 1980, supplemented by the Decree of 10 March 1981. In March 1985, the government implements a national voluntary organic standards associated with the AB logo. ²
1987	Denmark is the first country to implement a regulatory framework for organic farming.
1989	North America: The province of Quebec adopts the Plan d'intervention intégrée en agriculture biologique (Integrated plan for organic farming).
1991	The European Union adopts Council Regulation (EEC) 2092/91 on organic production.
1992	The European Union's agri-environmental programme is launched (Council Regulation (EEC) No 2078/92).
1997	First bilateral equivalence agreement between Switzerland and EU regulations. Argentina and Israel sign the first unilateral equivalence agreements with the European Union. Cuba starts its Urban, Suburban and Family Agriculture Programme.
1999	Adoption of the Codex Alimentarius Commission guidelines on organic agriculture. Tunisia is the first African country to implement a national organic regulation.
2000	Japanese law (JAS) on organic agricultural products established.
2002	Organic Food Production Act in US, which established the US National Organic Program (NOP) in 2002 to enforce agricultural products sold, labelled, or represented as "organic" within the US.
2007	The European Council of Agricultural Ministers agrees on the new Council Regulation (EC) No 834/2007 on organic production and labelling of organic products; rules for import become more flexible. Endorsement of the East African Organic Products Standard.
2008	Creation of the Pacific Organic Standards.
2010	The Philippines adopt the Organic Agricultural Act (Republic Act 1006).
2012	US and EU establish a bilateral agreement for trading of organic products. Brazil adopts the Brazilian National Policy for Agroecology and Organic Production (PNAPO, Federal Decree No 7,794). Creation of the League of Organic Agriculture Municipalities and Cities in the Philippines.
2015	Sikkim becomes the first fully organic state worldwide.

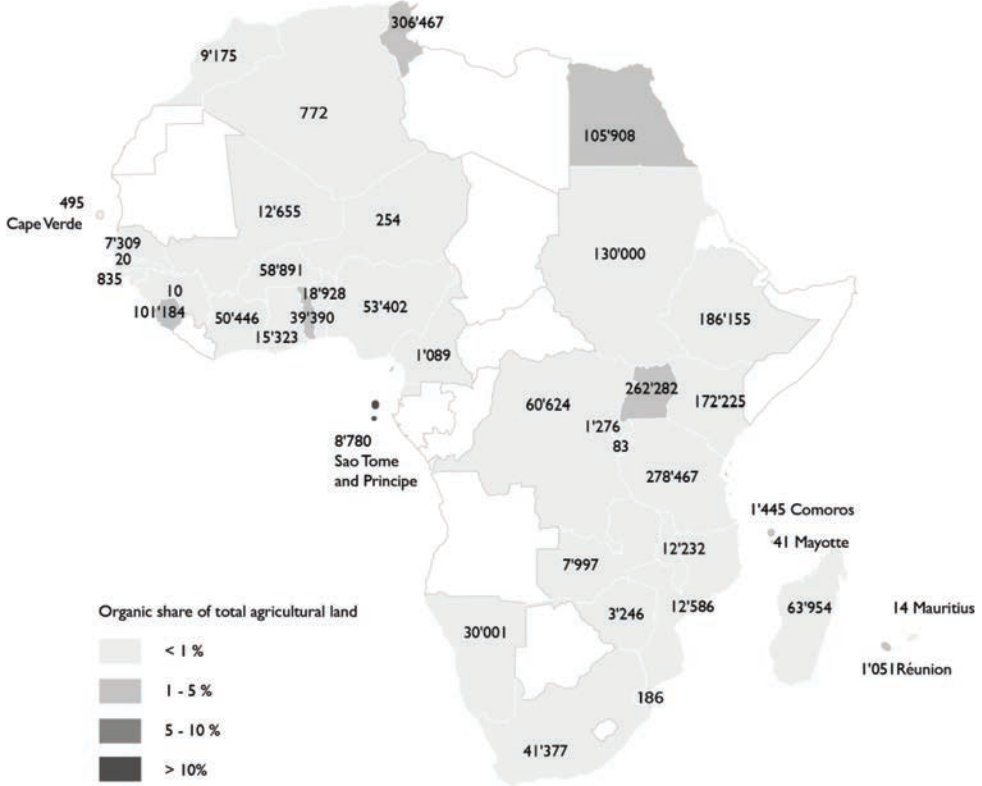
Compiled by Federica Varini and Joelle Katto-Andrighetto

¹ Codex Alimentarius Austriacus is a collection of standards and product descriptions for a variety of foods. The Codex Alimentarius Austriacus standards is primarily the product of a voluntary effort of experts in the food industry and universities. It is available at

<https://www.verbrauchergesundheit.gv.at/lebensmittel/bio/Festschrift-Bioregelungen.pdf?67toeg>

² For more information about the history of the French organic logo see the website of Agence Bio at <http://www.agencebio.org/breve-histoire-de-la-bio>

Africa



Map 2: Organic agricultural land in the countries of Africa 2017 (in hectares)

Source: FiBL survey 2019, based on information from the private sector, certifiers, governments, and for North Africa, the Mediterranean Organic Agricultural Network (MOAN)
For detailed data sources see annex, page 331.

Latest Developments in Organic Agriculture in Africa

JORDAN GAMA¹ AND MWANZO LAWRENCE MILLINGA²

Organic agriculture in Africa is gaining momentum, and 2018 continued to see the growing recognition among policymakers that organic agriculture has a significant role to play in addressing food insecurity, land degradation, poverty, and climate change in Africa. This, in one way or the other, prompted the 160 delegates in attendance at the 4th African Organic Conference (AOC), in Saly, Dakar, Senegal, to agree that Ecological Organic Agriculture (EOA) plays a significant role in fulfilling the African Union's Agenda 2063 and the Sustainable Development Goals (SDGs). Together, they recommended that all member states should increase efforts to generate and disseminate information to advance ecological organic agriculture and provide solutions that can facilitate engagement of financial institutions in improving access to financing organic agriculture businesses.

The African Organic Network (AfrONet)

There was significant achievement in 2018 in the institutionalization of the African Organic Network (AfrONet).³ AfrONet is the organic umbrella organization, which was established during the Second African Organic Conference in 2012, in Lusaka, Zambia. It unites and represents African ecological/organic stakeholders (Gama 2018). In terms of achievements, AfrONet stands out as an important body for the future of the African organic movement and sector.

AfrONet aims to strengthen and support regional networks and the Ecological Organic Agriculture Initiative for Africa (EOAI).⁴ Importantly, in Southern Africa, the Southern African Network for Organic Development (SANOD) and IFOAM's Southern African Network (ISAN) have continued to be in the spotlight for uniting stakeholders and further developing organic agriculture in the region. Other active regional networks are those of West, Central, and East Africa.

Organic conferences in Eastern, Western and Central Africa have become a success. For example, a successful Western African organic conference was held in Bamako, Mali in December 2017, whereas the East African Organic Conference was held in May 2018, prior to the Fourth African Organic Conference, in November 2018, in Saly,

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³ Information about AfrONet is available on afronet.bio.

⁴ The aim of EOAI is to promote ecologically sound strategies and practices among diverse stakeholders in production, processing, marketing and policy making to safeguard the environment, improve livelihoods, alleviate poverty and guarantee food security.

Dakar, Senegal. These conferences mark significant milestones and links for mainstreaming Ecological Organic Agriculture (EOA)¹ in the regions as well as in member countries' policies, strategies, and programmes. AfrONet takes the lead of the multi-stakeholder organizing committees for all of these conferences and is instrumental in the coordination and preparation of the events.

Furthermore, AfrONet actively participated in the events of the Forum for Agricultural Research in Africa (FARA),² the Organic World Congress held in India in 2017, as well as in projects such as the Productivity and Profitability of Organic and Conventional Farming Systems (ProEcoOrganicAfrica),³ PROGROV,⁴ the Ecological Organic Agriculture Initiative, and the Organic Trade Development in East Africa (OTEA).⁵ AfrONet has a permanent seat in the Continental Steering Committee (headed by the African Union) and Regional/Cluster Steering Committees of the Ecological Organic Agriculture Initiative (EOAI).

In collaboration with the African Union Commission (AUC), training on organic standards and certification is provided to stakeholders in the member countries of the Common Market for Eastern and Southern Africa (COMESA),⁶ the Economic Community of West African States (ECOWAS),⁷ and the East African Community (EAC).⁸ Furthermore, the Kasisi training centre in Zambia was identified by the AUC as one of the satellite centres for organic training on the continent, and the African Union Commission has approved the continent-wide Organic Product Standard for Africa.

Bringing strong representation to the Organic World Congress (OWC) held in India in November 2017, Africa, through Morocco, staged a bid to host the next OWC in 2020, in Marrakech. Although the voting process placed Morocco second after France, it

¹ According to the EAO Initiative (2015) Ecological Organic Agriculture is a "holistic system that sustains the health of ecosystems and relies on functional cycles adapted to local conditions, rather than the use of synthetic inputs which have adverse effects on total health (human, animal, plant and environmental). Africa continues to face the biggest challenge of feeding its citizens and populations in a contaminated and quickly deteriorating biodiversity. With a rapidly growing population, worsening effects of climate change, effects of globalisation, rising food prices and the diminishing health of Africa's biodiversity, the Ecological Organic Agriculture (EOA) brings in dimensions of Agricultural practices that embrace sustainability, biodiversity, ecosystems while producing food for the populations."

² More information about FARA is available at: www.fara-africa.org

³ Information about the ProEcoOrganicAfrica is available at www.ProEcoAfrica.net

⁴ Productivity and Growth in Organic Value-chains (ProGrOV) is led by the International Centre for Research in Organic Food Systems (ICROFS), Denmark. It has the following partners: Makerere University, Faculty of Agriculture, Department of Animal Science, Uganda; University of Nairobi, Faculty of Agriculture, Department of Animal Production, Kenya; Sokoine University of Agriculture, Department of Crop Science and Production, Tanzania; University of Copenhagen (UCPH), Denmark. More information is available at <http://drp.dfcentre.com/project/productivity-and-growth-organic-value-chains-progroov>.

⁵ OTEA is the Organic Trade and Value Chain Development project run by IFOAM – Organics International <http://www.ifoam.bio/en/organic-trade-and-value-chain-development-otea>

⁶ More information about COMESA is available at: www.comesa.int

⁷ More information about ECOWAS is available at: www.ecowas.int

⁸ More information about EAC is available at: www.eac.int

was still a big milestone. So far, one Organic World Congress (at that time called IFOAM International Scientific Conference) took place in Africa: in 1986 the event was held in Ougadougou, Burkina Faso.

The Fourth African Organic Conference in 2018 in Senegal

In partnership with the steering committee of the Ecological Organic Agriculture Initiative for Africa (EOAI), AfrONet led the multi-stakeholder organizing committee of the Fourth African Organic Conference, which was held from 5th – 8th November 2018, in Saly, Dakar, Senegal. The conference deliberated on the theme “Ecological and Organic Agriculture Strategies for Viable Continental and National Development in the Context of the African Union’s Agenda 2063.” It was attended by 160 delegates from more than 30 countries from Africa and other continents. The conference acknowledged the contribution of the ecological organic agriculture (EOA) in fulfilling the African Union’s Agenda 2063, the Sustainable Development Goals (SDGs), continental integration, mainstreaming of EOA into comprehensive Africa Agriculture Development Programme (CAADP), preserving and systemizing traditional knowledge, as well as providing scientific-based evidences for enabling policies to address poverty, climate change impact, food security, biodiversity loss, market access constraints, employment generation and gender inequalities for a prosperous Africa¹.

Through the work of the Steering Committee of EOAI and the Economic Community of West African States (ECOWAS), it was evident that the African Union Commission (AUC) continues to provide leadership in advancing the implementation of the Decision on Organic Farming (Doc. EX. CL/631 (XVIII)).

International partners remained instrumental in the success of the conference. These include: SWISS AID, the United Nations Conference on Trade and Development (UNCTAD), the Food and Agriculture Organization (FAO), the International Network of Organic Farmers Organization (INOFO), the Swiss Agency for Development and Cooperation (SDC), the Swedish Society for Nature Conservation (SSNC), IFOAM – Organic International, the International Society for Organic Agriculture Research (ISO FAR), the Research Institute of Organic Agriculture (FiBL) and the French Agricultural Research Centre for International Development (CIRAD).

The conference was a follow up of the Third African Organic conference that took place in Lagos, Nigeria, in 2015, where farmers and a diverse community of young scientists presented interesting research results and contributed to a fruitful discussion as well as knowledge sharing and exchange.

¹ The Saly 2018 declaration on ecological and organic agriculture strategies for viable continental and national development in the context of the African Union’s Agenda 2063. It is available at https://www.unodc.org/documents/westandcentralafrica/Declaration_de_Saly_EN.pdf

The Saly Declaration calls for the African governments, continental and regional institutions, development partners, donors and private sector investors to increase support for the development of EOA in Africa.

Outlook

Organic growth projections show a substantial increase in organic production in Africa, with the potential for millions of smallholder farmers and their families to move out of poverty and hunger and enjoy a better quality of life. The fact that traditional African agriculture is based on low external inputs provides an excellent foundation upon which organic agriculture can enhance productivity, resilience, and the profitability of smallholder farming in Africa. It is, therefore, an ideal development option for Africa. Organic farming practices integrate traditional farming methods and the use of affordable, locally available resources. As such, they are highly relevant to the majority of African farmers. Therefore, the necessary intensification of agricultural production in Africa can and should be ecological, maintain ecosystem services, and be based on restoring, building, and maintaining the natural resource base, particularly soil, water, and biodiversity. Therefore, local communities, farmers, and their sustainable practices need to be supported and enhanced so that the potential benefits of improved agricultural systems, based on the principles of organic agriculture, can be unleashed and disseminated throughout the continent.

References

- African Union, Executive Council (2011): Decision on organic farming. Doc. EX.CL/631 (XVIII). Eighteenth Ordinary Session. 24 - 28 January 2011, Addis Ababa, Ethiopia. Available at http://www.au.int/en/sites/default/files/decisions/9646_council_en_24_28_january_2011_executive_council_eighteenth_ordinary_session.pdf
- Auerbach, R., Rundgren, G., and El-Hage Scialabba N. (Eds.) (2013). Organic Agriculture: African Experiences in Resilience and Sustainability. Food and Agriculture Organization of the United Nations (FAO), Rome. Available online from the website: <http://www.fao.org/docrep/018/i3294e/i3294e.pdf>
- Ecological Organic Agriculture (EOA) initiative, Continental Steering Committee (2015): The Ecological Organic Agriculture (EOA) Initiative in Africa. Action Plan 2015-2020. EOA Continental Steering Committee
- Ecological Organic Agriculture (EOA) Initiative, Continental Steering Committee (2015): The Ecological Organic Agriculture (EOA)-Initiative. 2015-2025 Strategic Plan. EOA Continental Steering Committee, African Union Commission
- Gama, Jordan (2018): Latest Developments in Organic Agriculture in Africa. In: FiBL & IFOAM – Organics International (2018): The World of Organic Agriculture: Statistics and Emerging Trends 2018. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn. Available at <http://www.organic-world.net/yearbook.html>
- IFOAM (2013): Impacts associated with the uptake of organic agriculture in East Africa. IFOAM – Organics International, Bonn. Available online from the website: http://www.ifoam.org/sites/default/files/the_impact_of_organic_agriculture_in_east_africa.pdf
- Rahmann G, Olabiyi TI, Olowe VI, Azim K, & AdeOluwa O (Eds.) (2018): Scientific Track Proceedings of the 4th African Organic Conference, 5 - 8 November, 2018, in Saly Portudal, Senegal, " Ecological and Organic Agriculture Strategies for Viable Continental and National Development in the Context of the African Union's Agenda 20163". Ibadan, University of Ibadan

Milestones of Organic Agriculture in Africa

Year	Milestone
1977	First organic farm in Africa, SEKEM initiative in Egypt, is founded.
1988	The 7 th IFOAM International Scientific Conference is held in Ougadougou, Burkina Faso. It is the first time an IFOAM conference takes place in Africa.
1999	Tunisia develops a national strategy to reform agriculture and maximise the benefits of organic farming by adopting legislation on organic agriculture.
2001	Establishment of the first National Organic Movement (NOAM), the National Organic Movement of Uganda (NOGAMU).
2003	Establishment of national organic standards and local certification bodies (Tan-Cert, Ugo-Cert and the South African Organic Certification).
2006	First African Pavilion at Biofach, Nuremberg, Germany.
2007	First Regional Organic Products Standards, the East African Standards – EAS 456:2007, launched.
2009	First African Organic Conference (1st AOC) held in Kampala, Uganda. The Network of Organic Research in Africa (NOARA) is launched.
2011	African Union – Heads of State Decision on Organic Farming (Doc. EX. CL/63 I (XVIII)).
2012	The Ecological Organic Agriculture Initiative (EOAI) is launched in six countries – Ethiopia, Nigeria, Kenya, Tanzania, Uganda, and Zambia. The Second African Organic Conference (2nd AOC) takes place in Lusaka, Zambia. The African Organic Network (AfrONet) is founded.
2013	The Continental Steering Committee of the Ecological Organic Agriculture Initiative (EOAI SC) is launched. Since then, they have met twice per annum.
2014	African Union Commission direct support in capacity development in organic standards certification and marketing is given to three regional economic commissions (the Southern African Development Community (SADC), the East African Community (EAC) and the Economic Community of West African States (ECOWAS)).
2015	The Third African Organic Conference (AOC) takes place in Lagos, Nigeria. The first General Assembly (GA) of the African Organic Network (AfrONet) takes place in Lagos, Nigeria. The first Organic Products Exhibition in Africa, Lagos, Nigeria. Election of the first Board of AfrONet.
2016	The OTEA African Organic Leadership Course, by IFOAM – Organics International takes place in Dar es Salaam, Tanzania and Kampala, Uganda. Expansion of organic exports and trade from Africa – increase in land, number of organic farmers, products and total value. Mainstreaming of organic agriculture into national and regional policies, programs and strategies.
2017	Ecological Organic Agriculture strategy and action plan endorsed by the Council of Ministers of the African Union.
2018	The fourth African Organic Conference (AOC) takes place in Saly, Dakar, Senegal. The second General Assembly of the African Organic Network (AfrONet) takes place in Saly, Dakar, Senegal. Election of the second Board of AfrONet.

Compiled by Jordan Gama and Mwanzo Lawrence Millinga

Africa: Current Statistics

JULIA LERNOUD,¹ HELGA WILLER² AND BERNHARD SCHLATTER³

There were almost 2.1 million hectares of agricultural land in 2017, which is 0.2 percent of the continent's total agricultural area and 3 percent of the global organic agricultural area. The organic agricultural land in Africa has increased by nearly 255'000 hectares or 14 percent compared to 2016, and it increased by more than 2 million hectares from the 52'000 hectares in 2000. In 2017, 44 countries reported data on organic activities. Tunisia is the country with the largest organic area, with almost 306'500 hectares, and Uganda is the country with the highest number of organic producers, with over 210'000. The country with the highest organic share of the total agricultural land is the island state of Sao Tome and Principe, with 18 percent of its agricultural area being organic, followed by Tunisia with 3 percent and Egypt with 2.8 percent.

Land use

In 2017, over half of all organic agricultural land was used for permanent crops (almost 1.3 million hectares) in Africa. Almost 30 percent was used for arable crops (over 599'000 hectares), and almost two percent (over 82'700 hectares) was grassland/grazing area. For 8 percent of the organic agricultural land, no details were available.

Tunisia (274'000 hectares, mainly olives), Uganda (almost 170'700 hectares, mainly cocoa), Ethiopia (161'000 hectares mainly coffee), Kenya (over 127'000 hectares, mainly nuts and coconuts), and the United Republic of Tanzania (almost 107'000 hectares, mainly coffee) had the largest organic permanent crop areas. The key organic permanent crop is coffee, with over 373'000 hectares reported, 12.4 percent of the total coffee area of the region. The largest organic coffee areas are in Ethiopia (over 160'000 hectares) and Tanzania (almost 82'000 hectares). The organic coffee area has increased 20-fold since 2004; some of the increase can be attributed to the continually improving data availability. Cocoa was grown on almost 111'000 hectares, and it has grown 64-fold since 2004, representing 2.3 percent of the continent's cocoa area. The largest areas of organic cocoa are found in the Democratic Republic of Congo (51'900 hectares), Sierra Leone (43'300 hectares), and Uganda (over 19'000 hectares).

Almost thirty percent of the organic farmland was used for arable crops, most of which are oilseeds (almost 236'500 hectares, 0.9 percent of the total oilseed area; mainly sesame), textile crops (119'000 hectares, 2.3 percent of the region's total cotton

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area), and cereals. Nearly 60 percent of the region's cotton is found in the United Republic of Tanzania (almost 68'500 hectares), followed by Sudan (15'000 hectares). Since 2004, the organic cotton area grew 12-fold. Cereals were grown on over 66'000 hectares in 2017; the key producing countries were the United Republic of Tanzania (almost 51'000 hectares), Egypt (over 8'000 hectares), and Senegal (almost 3'700 hectares).

Producers

There were at least 815'000 organic producers in Africa. The countries with the most organic producers are Uganda (over 210'000), Ethiopia (over 203'000), and the United Republic of Tanzania (148'000). It can be assumed that the number of producers is higher because some countries only report the number of farm enterprises/companies.

Wild collection

Wild collection has an important role in Africa with over 14.3 million hectares certified as organic in 2017. Zambia is the country with the largest area (more than 5.9 million hectares, mainly beekeeping), followed by the United Republic of Tanzania (2.4 million hectares, mainly beekeeping), Namibia (1.3 million hectares, mainly devil's claw), South Africa (1.3 million hectares, mainly devil's claw), Mozambique (more than 844'000 hectares, mainly coconuts), and Somalia (over 807'000 hectares, mainly natural gums). Medicinal plants, such as devil's claw (*Harpagophytum procumbens*) are the commodities that have the largest area (over 2.5 million hectares), followed by oil plants (almost 737'000 hectares), such as argan. Beekeeping is the key activity in organic wild collection in Africa with almost 7.8 million hectares. Zambia is the country with the largest wild collection area used for organic beekeeping with 5.9 million hectares, representing 67 percent of the total beekeeping area.

For more information about the African figures, see data tables for Africa, page 184.

Organic Agriculture in Africa: Graphs

Africa: The ten countries with the largest organic area 2017

Source: FiBL survey 2019

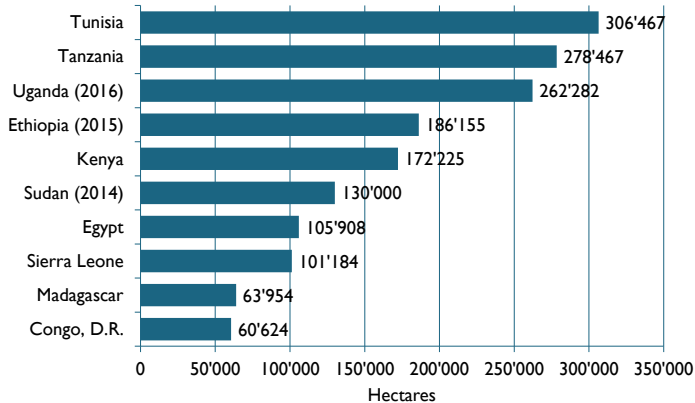


Figure 59: Africa: The ten countries with the largest organic agricultural area 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 I

Africa: The countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019

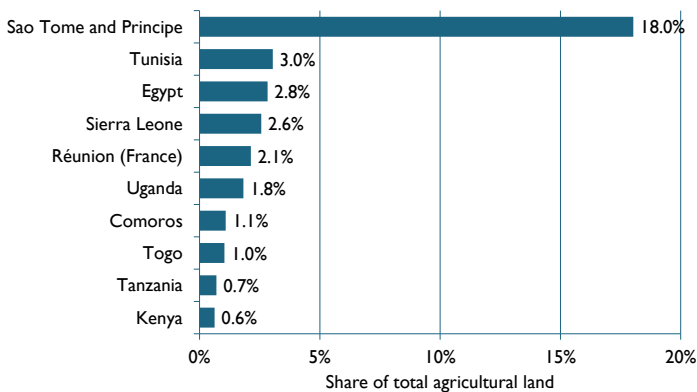


Figure 60: Africa: The countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 I

Africa: Development of organic agricultural land 2000 to 2017

Source: FiBL-IFOAM-SOEL-Surveys 2001-2019

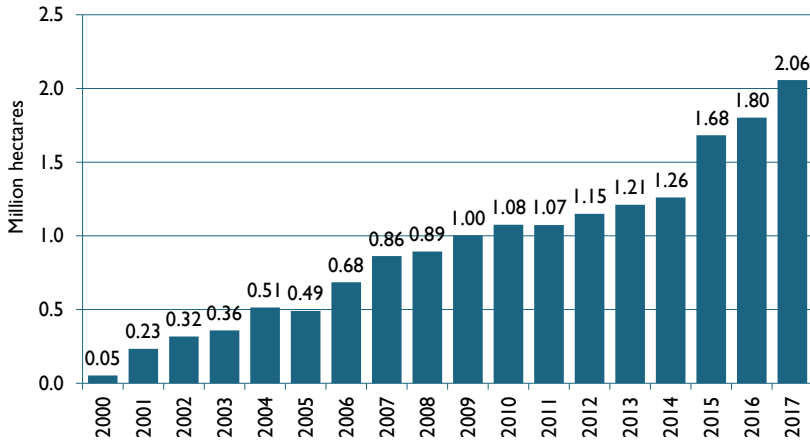


Figure 61: Africa: Development of organic agricultural land 2000 to 2017

Source: FiBL-IFOAM-SOEL-surveys 2000-2019

Africa: Use of organic agricultural land 2017

Source: FiBL survey 2019; based on information from the private sector, certifiers, and governments.

Land use types 2017

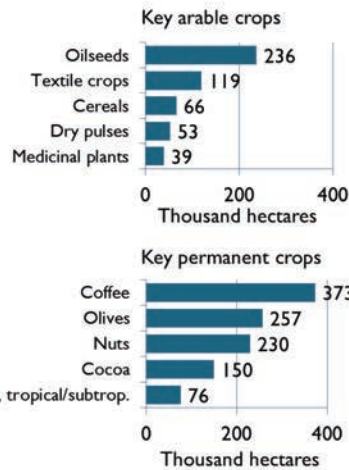
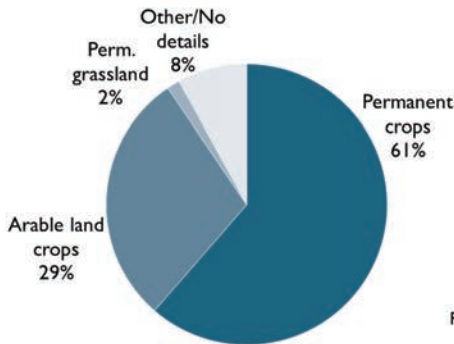


Figure 62: Africa: Use of organic agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Africa: The ten countries with the largest number of organic producers 2017

Source: FiBL survey 2019

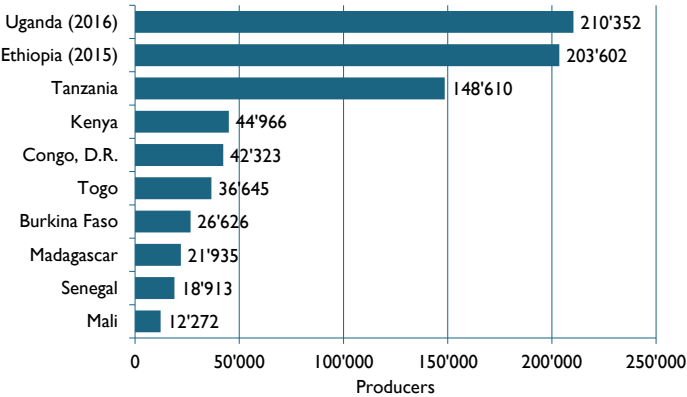


Figure 63: Africa: The ten countries with the largest number of organic producers 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Organic Agriculture in Africa: Tables

Table 45: Africa: Organic agricultural land, organic share of total agricultural land and number of organic producers 2017

For information on data year, see page 331.

Country	Area [ha]	Share of total agr. land [%]	Producers [no.]
Algeria	772	0.002%	64
Benin	18'928	0.5%	4'030
Burkina Faso	58'891	0.5%	26'626
Burundi	83	0.004%	35
Cameroon	1'089	0.01%	499
Cape Verde	495	0.6%	
Chad		Wild collection only	
Comoros	1'445	1.1%	1'540
Congo, D.R.	60'624	0.2%	42'323
Côte d'Ivoire	50'446	0.2%	2'777
Egypt	105'908	2.8%	970
Ethiopia	186'155	0.5%	203'602
Gambia	20	0.003%	
Ghana	15'323	0.1%	3'164
Guinea	10	0.0001%	
Guinea-Bissau	835	0.1%	
Kenya	172'225	0.6%	44'966
Lesotho		Wild collection only	
Madagascar	63'954	0.2%	21'935
Malawi	12'232	0.2%	6
Mali	12'655	0.03%	12'272
Mauritania		Wild collection only	
Mauritius	14	0.02%	22
Mayotte	41	0.3%	5
Morocco	9'175	0.03%	116
Mozambique	12'586	0.03%	8
Namibia	30'001	0.1%	23
Niger	254	0.001%	
Nigeria	53'402	0.1%	1'087
Réunion (France)	1'051	2.1%	257
Rwanda	1'276	0.1%	9'002
Sao Tome and Principe	8'780	18.0%	3'564
Senegal	7'309	0.1%	18'913
Sierra Leone	101'184	2.6%	1'846
Somalia		Wild collection only	
South Africa	41'377	0.04%	281
Sudan	130'000	0.2%	218
Swaziland	186	0.02%	
Tanzania, United Republic of	278'467	0.7%	148'610
Togo	39'390	1.0%	36'645
Tunisia	306'467	3.0%	7'236
Uganda	262'282	1.8%	210'352
Zambia	7'997	0.03%	10'061
Zimbabwe	3'246	0.02%	2'007
Total*	2'056'571	0.2%	815'070

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

*Total number includes data for countries with less than three operators.

Table 46: Africa: All organic areas 2017

Country	Agri- culture [ha]	Aqua- culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]	Total [ha]
Algeria	772				628	1'400
Benin	18'928				3'700	22'628
Burkina Faso	58'891				231'765	290'656
Burundi	83					83
Cameroon	1'089				47'000	48'089
Cape Verde	495					495
Chad					124'130	124'130
Comoros	1'445				63	1'508
Congo, D.R.	60'624					60'624
Côte d'Ivoire	50'446				1'060	51'506
Egypt	105'908				60'000	165'908
Ethiopia	186'155				9'033	195'188
Gambia	20					20
Ghana	15'323				115'974	131'296
Guinea	10				1'000	1'010
Guinea-Bissau	835					835
Kenya	172'225				151'425	323'650
Lesotho					1	1
Madagascar	63'954				15'500	79'454
Malawi	12'232				6'319	18'551
Mali	12'655				8'690	21'344
Mauritania					2'800	2'800
Mauritius	14					14
Mayotte	41					41
Morocco	9'175				180'391	189'565
Mozambique	12'586				844'400	856'986
Namibia	30'001				1'311'400	1'341'401
Niger	254					254
Nigeria	53'402	3'600			1'000	58'002
Réunion (France)	1'051					1'051
Rwanda	1'276				12	1'287
Sao Tome and Principe	8'780					8'780
Senegal	7'309				26'607	33'915
Sierra Leone	101'184				5'422	106'606
Somalia					807'300	807'300
South Africa	41'377				1'284'663	1'326'040
Sudan	130'000				173'913	303'913
Swaziland	186					186
Tanzania	278'467				2'418'740	2'697'207
Togo	39'390				242	39'632
Tunisia	306'467		71'533	27'605	25'486	431'091
Uganda	262'282				158'328	420'610
Zambia	7'997				5'966'900	5'974'897
Zimbabwe	3'246				343'090	346'336
Total	2'056'571	3'600	71'533	27'605	14'326'981	16'486'289

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 47: Africa: Land use in organic agriculture 2017

Land use	Crop group	Area [ha]
Agricultural land and crops, no details		70'509
Arable crops	Arable crops, no details	8'309
	Cereals	66'063
	Dry pulses	52'992
	Fallow land, crop rotation	7'149
	Flowers and ornamental plants	921
	Hops	3
	Industrial crops	84
	Medicinal and aromatic plants	39'162
	Mushrooms and truffles	1
	Oilseeds	236'419
	Plants harvested green	6'098
	Root crops	18'091
	Seeds and seedlings	2
	Strawberries	620
	Sugarcane	8'087
	Textile crops	119'104
	Tobacco	5
	Vegetables	35'811
	Arable crops, other	207
Arable crops total		599'128
Cropland, no details		83'210
Other agricultural land		10'715
Permanent crops	Berries	36
	Citrus fruit	7'151
	Cocoa	149'535
	Coconut	22'685
	Coffee	373'444
	Fruit	1'749
	Fruit, temperate	78
	Fruit, tropical and subtropical	76'303
	Grapes	4'651
	Medicinal and aromatic plants, permanent	46'867
	Nurseries	3
	Nuts	229'804
	Olives	257'089
	Tea/mate, etc.	27'928
	Permanent crops, other	65'071
Permanent crops total		1'262'392
Permanent grassland		30'618
Total		2'056'571

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 48: Africa: Use of wild collection areas 2017

Land use	Area [ha]
Apiculture	7'842'103
Fruit, wild	19'817
Medicinal and aromatic plants, wild	2'577'265
Nuts, wild	265'961
Oil plants, wild	736'615
Rose hips, wild	127'600
Wild collection, no details	2'757'619
Total	14'326'981

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Asia



Map 3: Organic agricultural land in the countries of Asia 2017

Source: FiBL survey 2019 based on information from the private sector, certifiers, governments, and, the Mediterranean Organic Agricultural Network (MOAN) for the Mediterranean countries
For detailed data sources see annex, page 331.

Developments in the Organic Sector in Asia in 2018

COMPILED BY IFOAM ASIA¹

In 2018, national organic standards were approved in countries like Bangladesh and Vietnam, while Cambodia issued a roadmap to promote organic agriculture. National organic standards were revised in China, the Philippines, and South Korea, with structural changes in China, prioritization of the inclusion of Participatory Guarantee Systems (PGS) in the Philippines and permanent fixation of direct payment programs for organic farmers in South Korea.

Participatory Guarantee Systems (PGS) remain strong in Indonesia, and the central government shows active support for its “1000 Organic Villages” project. In Thailand, the government launched a large-scale project, which relies on support programs to convert one million rai (160’000 hectares) to organic rice production within three years, amidst criticism from the private sector. The first Biofach Southeast Asia, which was sponsored by the Thai Ministry of Commerce, was successfully launched, together with the national trade fair “Organic and Natural Expo and Symposium.”

The largest organic event in Asia, the 3rd IFOAM Asia Organic Asia Congress (OAC), was held in Bislig City, Philippines. It brought together major organic stakeholders in Asia and the Philippines. Improvements in the political relationship between North and South Korea indicate potential opportunities for cooperation in the development of the organic sector on the Korean Peninsula.

Bangladesh

SHAIKH TANVEER HOSSAIN² AND KHURSHID ALAM³

The Bangladeshi government approved the “National Organic Agricultural Policy (NOAP)” in 2016, and the Ministry of Agriculture formed three sub-committees in July 2018 to develop organic standards and a certification system. Accordingly, two sub-committees were assigned. The first sub-committee is responsible for developing a domestic organic standard and identifying a competent authority for accreditation purposes. The other sub-committee is responsible for developing the certification procedure. The government is keen to improve the domestic organic market by incorporating the findings of the sub-committees next year. The organic area and production are increasing gradually in Bangladesh. Civil society organizations, entrepreneurs in the organic movement, and the related sectors are actively involved

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in the development of the sector. Consumers are also showing more concern for safe and organic foods than in previous years, which is a very positive sign for the growth of the overall organic sector and movement in Bangladesh.

Furthermore, the Bangladeshi government is committed to promoting and encouraging the organic sector in different ways. Two organizations, the “Tarango” and the “Partex Group,” were awarded the Bangabandhu National Agriculture Award 2017 (“Bangabandhu Jatiya Krishi Puroshkar-1422”), the highest state recognition in the agriculture sector, for their contribution to the organic industry in the previous year.

Cambodia

AYUMI MATSUURA¹

Cambodia has been the focus for interventions by international development actors since the early 1990s after thirty years of civil war. Until now, more than half of the country’s national budget is still funded through development assistance. As a result, policy developments are aligned to meet the demands of aid programs rather than the demands of civil society in the country. Unfortunately, this has also applied to the organic agriculture sector.

Agriculture in Cambodia was based on self-sufficiency farming until recent years. Since more than half of the households are engaged in farming, most of them grow rice for self-consumption. Until recently, chemical inputs were unavailable or unaffordable and were not used by farmers.

Farmer’s income generation and commercialization of agro-products were promoted through many aid programs, which encouraged the use of agro-chemical input. With the promotion of value-chain development in the 2010s, the trend shifted to organic production. However, there was no equivalent word for “organic” in the local language, and many Cambodians did not understand the concept of “organic.” Therefore, many development workers used the word “organic” in English or translated it as “natural.” In most cases, it was understood as farming without chemical inputs. Most of the efforts to convert conventional farmers to organic failed because, by then, farmers had become heavily dependent on chemical inputs, and their organic products could not be sold at a higher price.

The Cambodian Organic Agriculture Association (COorAA), the domestic organic certification body, was established through an international development initiative in 2006. It is still struggling to become “localized” and “self-sustainable.”

Nevertheless, awareness on the global demand for organic products increased, and exporters found farm plots, where farmers practice agroforestry, as they cannot afford agro-chemical inputs.

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In 2018, there was an increase in the export of organic products through contract farming such as organic rice produced by agriculture cooperatives. Furthermore, a program to export organic cassava produced through contract farming was launched. In 2019, contract farming of organic cashew nuts will be launched.

On the policy level, the Cambodian government is under pressure to harmonize its organic standard in line with other ASEAN countries. With the support of European donors, the Ministry of Agriculture Forestry and Fisheries of Cambodia issued the “National Roadmap for Cambodian Organic Agriculture (CAM.ORGANIC) 2018-2022”, which includes the plan to set up a national organic standard and certification system.

China

ZHOU ZEJIANG¹

In 2018, with the restructuring of the national government, the Certification and Accreditation Administration of China (CNCA) was merged into the newly established “State Administration for Market Regulation,” and the organic sector is now under the supervision of the new body.

The Chinese national organic standard (GB/T19630), which was first issued and implemented in 2005 and revised in 2011, underwent a second revision. The third version of the standard will be effective from 2019.

The number of organic certification bodies increased significantly in 2018 after the national authority implemented the new policy of “easier entrance but stricter supervision.” The supervision measures taken by the national and local authorities have been increasingly strengthened.

The national authority (CNCA) started the program “Establishment of Demonstration Areas for National Organic Products Certification” in 2011, and by the end of 2017, 129 counties were listed as pilots for the programme. Twenty-six counties were chosen as “Areas for the Demonstration of National Organic Product Certification.” In 2018, 51 more counties were added to the list of the pilot counties.

The “Internet + Tele-control system for Organic Products Inspection,” which was developed by the Organic Food Development & Certification Centre of China (OFDC), was tested and appraised in 2018 with support from the national authority. This system is a strong tool for supporting effective post-inspection and certification supervision, for lowering the costs for both the applicants and certification bodies, and for enhancing the integrity of organic production and certification.

In 2018, Chinese certification bodies sent inspectors abroad to conduct organic inspections in accordance with the Chinese organic standard. As many as 418 Chinese

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organic certificates were issued, thus facilitating the export of foreign organic products to China, which demonstrates a strong interest by foreign traders to explore the Chinese organic market.

The 10th National Community-Supported Agriculture (CSA) Conference attracted more than 400 delegates representing more than 1'000 CSA groups from all over China. Since 2009, the annual CSA conference has been held in different parts of China. The Chinese CSA movement achieved global prominence with the election of Dr. Shi Yan as co-chairperson of URGENCI, the international CSA network.

India

JOY DANIEL¹

The year has not been very favourable for the small and marginal farmers who depend on rain-fed farming in the country. Rainfall was far below average in 2018, and it was the fifth consecutive year with a rainfall deficit according to data from the Indian Meteorological Department (IMD). Even worse, the country has witnessed 13 years with little rainfall during the past 18 years. Groundwater extraction has been the only way, even though it is unsustainable, to compensate for the low rainfall. The effects of climate change are affecting the farmers in many adverse ways. The time has come for the nation to understand that organic farming is the only way to circumvent the not-so-distant climate disaster.

In relation to climate change, many cases around the country showed that organic farmers dealt with the drought much better than conventional farmers did. Among the 300'000 farmers, who committed suicide out of distress during the last 20 years, very few were organic farmers. Organic farmers benefit from better soil structure, which helps to hold moisture, and diversity on the farms helps compensate losses in one crop with gains from other crops. Some farmers have also been able to sell their products as certified organic.

Third party certified organic cultivated farm area rose from 1.5 million hectares in 2017 to 1.78 million hectares in 2018. This does not include the 260'800 hectares certified by the PGS-India system, which is facilitated by the National Centre for Organic Farming – a government department, which was established to promote organic farming in the country. Overall, the certified organic cultivated area in the country is about 2 million hectares. This does not include at least another 10'000 hectares that are certified by other PGS systems and an estimated 10 million additional hectares, on which traditional forms of agriculture are practiced in Northeast India, tribal regions, hills, and in remote dryland regions. These areas are organically managed but not certified as organic.

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Indonesia

INDRO SURONO¹

In 2018, the domestic market demand for organic food showed growth, especially due to the online trading undertaken by some distributors. Organic products on the market were diverse, ranging from fresh to processed products. However, this was limited to the big cities like the greater Jakarta area. On the production level, organic farming also showed growth, especially for trade on international markets. For local market development, the Indonesia Organic Alliance (IOA) supported many PGS initiatives under “PAMOR” (the Indonesia PGS system) in Sumatra and Java. IOA also initiated an organic trade forum to assist with market access. The central government program “1000 Organic Villages” is steadily developing with products already certified both for the national and international markets. The implementation of import regulations for organic products in 2017 made it possible for more imported organic products to be sold in supermarkets in big cities in Indonesia.

Japan

SATOKO MIYOSHI²

According to the figures released by the Ministry of Agriculture, Forestry and Fisheries (MAFF) in 2017, the Japanese organic market showed a substantial increase in 2017, with an estimated value of 178.5 billion Japanese yen.³ According to a survey done by Yano Research Institute Ltd., 55 percent of retailers sell organic products in their stores. In August 2018, the International Organic Expo held in Yokohama city attracted about 13'600 visitors, and more than 24'000 visitors attended the in the Organic Lifestyle Expo held in Tokyo in September. These events show the high interest of retailers and consumers in organic products; not only in foods and beverages but also in non-food products such as fashion and home products.

The Ministry of Agriculture, Forestry and Fisheries (MAFF) organized a meeting for local governments promoting organic agriculture, with the aim of preparing a platform of local governments, which promote and support organic agriculture. MAFF also organized a National Organic Day (December 8th) to promote organic agriculture in Japan. Schools in Isumi city in the Chiba prefecture now use 100 percent local organic rice in school meals. A compost facility was also set up and is managed by the city.

Many new farmers are becoming more interested in starting organic farming. Given the decreasing number of farmers, these new farmers will be the key for the society's sustainable future and the further development of the sector.

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³ Approximately 1.4 billion euros

Korea

MANCHUL JUNG¹ AND DONG-GEUN CHOI²

The year 2018 saw the 20th anniversary of the implementation of the “Sustainable Agriculture Promotion Act” (later renamed “Environmentally-Friendly Agriculture Promotion Act”). The promulgation of the act was conducive to the establishment of the framework that enabled the implementation of diverse policies such as direct payment programs to promote steady growth of environmentally-friendly agriculture in South Korea. In 2018, efforts were undertaken to revise the act in order to expand the definition of environmentally-friendly agriculture (which includes organic agriculture) to include environmental aspects (e.g., ecological services). This shows a change in the policy paradigm as it shifts the focus from safety and health to environment and ecology.

The short-term direct-payment programs for organic farmers have now become permanent. On the institutional level, the “Policy Commission for Environmentally-Friendly Agriculture,” composed of producers, consumers, experts, etc., was formed to foster public-private governance and to discuss policy measures to promote production, distribution, and consumption of environmentally-friendly agricultural products.

In 2018, elections for local governments were held. Central and local governments put much emphasis on the role of the public sector in increasing the consumption of environmentally friendly agricultural products. Efforts have been undertaken to expand the school meal programs into other public procurement programs. As a trial measure, the central government bought 5000 tons of certified environmentally-friendly rice to be used in the military and other public canteens.

2018 was a historic year with the détente between North and South Korea. The Korean organic movement appealed to international organizations such as IFOAM - Organics International and humanitarian groups to assist in building bridges between the two Koreas, especially in the area of cooperation and development of organic agriculture on the Korean Peninsula.

Myanmar

THAN SEIN³, HLA MYINT KYAW⁴, and OLIVER GARDINER⁵

In the past 20 years, organic agriculture in Myanmar has seen little development. In the 1990s, 80 percent of the agricultural land was managed naturally, and fewer inputs were used than today. Before the political revolution of 1988, the socialist

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government provided subsidized fertilizers, but government support was later cut, and extension services for farmers were no longer granted. Consequently, agro-chemical companies have bridged the gap, and today, the Myanmar farmers and agro-ecosystem are suffering from agrochemical pollutant. The Department of Agriculture has prioritized Good Agricultural Practices (GAP) for food security reasons.

In November 2013, the Myanmar Organic Grower and Producer Association (MOGPA) was established to work with organic farmers. In 2016, MOGPA received technical support from the FAO Regional Office to establish a Participatory Guarantee System (PGS) in Myanmar.

From the start, MOGPA has been dedicated to working with smallholder farmers in organic agriculture and to assisting them in producing optimal, quality-controlled products. It currently has more than 15'000 members, who have completed an organic education and training program, which was launched in August 2010. About 500 members are active in the formation of PGS groups.

MOGPA is currently working to establish organic training schools and organic farm models in each state in Myanmar. One such school, called the "Golden Ground Organic Farming Training Center," was opened in the Shan State, where more than 560 farmers have been trained, and an "Organic Farmers Handbook" was published.

In the Yangon district, two organic farmers' markets were established in 2018, and the main supermarket "City Mart" is seeking to invest in organics. In the hospitality industry, demand for organics is high, exceeding production.

In 2019, MOGPA will be working with Regeneration International to organize a series of workshops on regenerative organic agriculture.

Philippines

VIC TAGUPA¹

One of the most discussed issues in 2018 is the amendment of RA10068 - the "Organic Agriculture Act of 2010", particularly regarding the inclusion and implementation of Participatory Guarantee Systems (PGS). This act has declared a state policy to promote, propagate and develop organic agriculture in the country.

The enactment of the Organic Agriculture Act boosted growth in the sector with government support for the establishment of the National Organic Agriculture Program, annual nation-wide organic agriculture festivals, and other measures. A series of discussions took place throughout the year supported by the office of Senator Cynthia Villar, the Head of the Senate Committee on Agriculture and Food. The

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national government has made it a top priority to include PGS in the amendment of RA10068 by 2019.

In 2018, Bislig City, in the Surigao del Sur province, (Mindanao island) hosted the 3rd IFOAM Asia Organic Asia Congress, which brought together more than 1'300 participants from the Philippines and other Asian countries.

The League of Organic Municipalities and Cities in the Philippines (LOAMC-Ph) has become one of the largest organic agriculture organizations in the country. In 2018, membership in LOAMC exceeded 120 members, representing cities and municipalities pursuing organic agriculture programs. Strategic alliances have been formalized with Goesan County (South Korea) and the Asian Local Governments for Organic Agriculture (ALGOA), expanding its network and spearheading the development of organic agriculture on the municipal and city levels.

Thailand

VITOON PANYAKUL¹

In 2017, there was another turning point in the growth of Thai organic agriculture: the government launched a large-scale project to expand organic rice farming through direct subsidies. Initiated and implemented by the Department of Rice in the Ministry of Agriculture and Cooperatives, the project plans to convert one million rai (160'000 hectares) into organic rice production within three years. They will do so through a combination of direct subsidies, based on organic land acreage, input subsidy, and free government certification.

However, there is criticism from the private sector, such as the complete lack of consultation with them. They also criticize the plan for being very ambitious as it almost quadruples the organic acreage of the country and requires a budget of over 410 million US dollars over five years (which is larger than the annual budget allocated for all government departments combined).

The requirement for farmers to only apply for organic certification with the Department of Rice (DoR) would mean that farmers could not apply for private certifications. The lack of planning for support mechanisms (e.g., training inspectors or developing a market for organic rice) also came under severe criticism.

There was no assessment on the implications of the project, especially on the price existing farmers receive for organic rice. The training of inspectors, which is needed to certify the increase in organic rice, was also not taken into consideration. By the end of 2017, the project managed to reach 200'000 rai, doubling organic rice production, but falling short of the 300'000 rai target.

Another important development was the involvement of the Thai Ministry of Commerce in "Biofach Southeast Asia." The ministry sponsored this private trade fair,

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which was organized by the German NurembergMesse and combined with the national trade fair "Organic and Natural Expo and Symposium." Biofach Southeast Asia was the highlight of organic trade activities, not just for Thailand but also for the Southeast Asia region. At this event, members of organic trade and producer associations in Asia met and jointly organized the "ASEAN Organic Federation" to further their collaboration to promote organic agriculture and trade within the region.

Participatory Guarantee Systems (PGS) were a hot topic among the Thai government agencies after the government launched its second five-year "National Organic Development Strategy," which included support for PGS. Many producer groups, as well as supporting organizations, wanted to set up PGS for their newly converted farmers. This led to a proliferation of organic PGS in the country. However, due to the lack of competent advisers, genuine PGS groups were slow to expand. Towards the end of the year, PGS groups and supporting organizations got together to form the "Thai Organic PGS Federation" in order to share resources and experiences. This may help to consolidate the Thai PGS movement as well as strengthen their influence.

Vietnam

DANG THI BICH HUONG¹

The year 2018 proved very fruitful for the organic market and policy development.

In 2018, many violations in food production and processing were reported, and cases of food poisoning further increased the distrust of domestic consumers in conventional goods. Consumers are increasingly using imported and domestic organic products, especially PGS organic products.

On the policy level, the Ministry of Science and Technology (MOST) issued the National Standard on Organic Agriculture (No TCVN 11041:2017) in December 2017. It consists of three parts: General Requirements for Production, Processing, and Labelling of Organic Products; Organic Crop Production; and Organic Livestock. A further standard (No TCVN 12134:2017), regarding the general requirements for the certifying bodies, was also issued.

The year 2019 is expected to be one of growth in the organic market in Vietnam. Organic production and the organic market will increase due to consumer demand for safe food and rising per capita income. The distribution system for organic products is getting more diversified, and PGS have now been set up in more than seven provinces in Vietnam (Ha Noi, Ha Nam, Hoa Binh, Tuyen Quang, Cao Bang, Ben Tre, and Hoi An). With the training provided by the Vietnam Organic Agriculture Association (VOAA), more than five other local governments have expressed their intention to set up organic PGS groups in their respective provinces.

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IFOAM Asia in 2018

JENNIFER CHANG¹

In 2018, the two biggest IFOAM Asia projects – the Asian Local Governments for Organic Agriculture (ALGOA) project and the Organic Youth Forum – showed the most progress. The members of ALGOA, the “Asian Local Governments for Organic Agriculture,” tripled in number and reached 204 members. The ALGOA Philippines Members Forum reached out to other local governments and created much interest in the potential and impact of local government cooperation in the promotion of organic programs.

The ALGOA annual organic leadership training, under the full sponsorship of Goesan County, South Korea, provided opportunities for 26 local government officials from 16 countries to learn about the fundamentals of organic agriculture. The 10-day residential training successfully culminated in the building up of valuable networks and exchange among the participants. The Organic Youth Forum, with its growing number of members, undertook a weeklong study tour of Mindanao Island in the Philippines to learn first-hand about the local development of organic agriculture in the Philippines and to search for ways to create synergies for future cooperation with the local youth leaders in the private and the public sector. ALGOA members in Mindanao Island provided support for the local logistics and planning for 22 young people from 14 countries in Asia (including Kyrgyzstan), Germany and Switzerland.

Interest in the Organic Youth Forum is increasing, and a contract with New Taipei City has been signed for the next Forum, which will be held from March 26th to 31st, 2019. For the Forum, 22 foreign and 50 local youth delegates will be carefully selected for attendance. Discussions are underway for another Forum to be held in Nagaland, India, in early December 2019.

The third Organic Asia Congress (OAC) in Bislig City, Philippines in September 2018 was organized with the full support of the local government of Bislig and the central government. More than 1'300 participants came from 24 countries from Asia and other parts of the world. It was the largest organic event of the year in Asia, and participants took part in the week-long event which included the main plenaries of the Congress, the 6th Organic Rice Conference, the IFOAM Organic Farming Innovations Award (OFIA) Summit, the IFOAM Asia Organic Youth Forum (and pre-Forum study tour), the ALGOA Philippines Members' Forum, and an organic trade fair.

The year 2019 will be another year of milestones with the “ALGOA+4 Summit” in September, which will bring together more than 200 representatives from international organizations, local governments, and IFOAM members around the world. The year will see ALGOA making strides from being a regional to global-minded organization.

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Milestones of Organic Agriculture in Asia

Year	Milestone
1973	Japan: The Teikei movement is started by the Miyoshi Organic Farmers Group/Motomeru Kai Consumer Group.
1976	South Korea: the Right Farming Association is established - the start of the organic farming movement.
1988	China: the Nanjing Institute of Environmental Sciences under the Ministry of Environmental Protection (NIES-MEP) of China joins IFOAM - the starting point of the organic movement in China.
1994	China: the Organic Food Development Center of China (OFDC) is established - the first organic organization and the first organic certification body in China. China: The first private organic standard (OFDC standard) is introduced.
1995	Thailand: the Organic Agriculture Certification Thailand (ACT) is established, and the first Thai organic crop standards are drafted.
1998	South Korea: Enforcement of Environmentally-friendly Agriculture (EFA) Promotion Act.
2000	Japan: Standards for Organic established under the Japan Agricultural Standards (JAS).
2001	The Philippines: The Organic Certification Center of the Philippines (OCCP) is established.
2002	Indonesia: National standard on organic food production released (SNI 01-6729-2002).
2002	Thailand: The National Office of Agricultural and Food Commodity Standards (ACFS) completes "Organic Agriculture: the Production, Processing, Labeling and Marketing of Organic Agriculture," covering crop, livestock, and aquaculture.
2004	India: Establishment of the National Centre for Organic Farming (NCOF) India: the Government of Karnataka formulates an Organic Farming Policy. India: The first international meeting on alternative certification, at which Indian case studies are also discussed, takes place.
2005	China: The national organic standard GB/T-10630 (Organic products) is issued by the Standardization Administration of China. China: The management regulation of organic certification is issued by the Certification and Accreditation Administration of the People's Republic of China (CNCA).
2005	Philippines: President Gloria Macapagal Arroyo issues Executive Order 481 to promote, develop and sustain organic agriculture as a farming technology and to develop the growing organic agriculture industry in the country.
2006	Japan: Implementation of the Organic Agriculture Promotion law.
2007	Thailand National Organic Development Committee was established, and the first National Strategic Plan for Organic Agriculture Development (2008 – 2011) approved.
2011	South Korea hosts the 17th IFOAM Organic World Congress (OWC) in Namyangju City, Gyeonggi Province.
2012	South Korea: Establishment of IFOAM Asia.
2015	South Korea: Establishment of the Asian Local Governments for Organic Agriculture (ALGOA); Organic 3.0 Goesan Declaration adopted.
2017	Vietnam Organic Agriculture Association organizes the "1st Asia Organic Day" on September 19 th .
2017	19th IFOAM Organic World Congress is hosted in India.

Compiled by Jennifer Chang, IFOAM Asia

Asia: Current statistics

JULIA LERNOUD,¹ HELGA WILLER,² AND BERNHARD SCHLATTER³

Overview

The area of organic agricultural land in Asia is almost 6.1 million hectares, which is 0.4 percent of the total agricultural area in the region. Nine percent of the global organic agricultural land is in Asia. Since 2001 (420'000 hectares), the organic land has grown over fourteen-fold. Between 2016 and 2017, the organic area in Asia increased by over 1.2 million hectares or 25 percent. The country with the largest organic agricultural area is China (3 million hectares), and the country with the most producers is India (835'000 producers). The countries with the highest organic shares of the total agricultural land are Timor-Leste (8.2 percent) and Sri Lanka (6 percent).

Land use

In Asia, 45 percent of all organic farmland was used for arable crops (2.7 million hectares) in 2017, 13 percent (nearly 809'000 hectares) for permanent crops, and 18 percent for grassland/grazing areas (over 1 million hectares). Land use information was not available for 24 percent of the agricultural land, so we can assume that each category has a larger share of the total organic land.

Cereals comprise the key organic arable crop group (mainly wheat and rice), with over 1.1 million hectares, representing 0.3 percent of the total cereal area in Asia. Most organic cereals were grown in China (over 900'000 hectares) and Kazakhstan (more than 65'000 hectares). Oilseeds (mainly soybeans) are also an important crop group grown on at least 341'000 hectares (mainly in China and India) and represented 0.6 percent of the total oilseed area in Asia. The key organic cereals were rice, grain maize and wheat. Organic rice represented 42 percent of the total organic cereal area and, together with wheat (27 percent) and grain maize (14.5 percent), represented almost 84 percent of the total organic cereal area in Asia. Organic rice was mainly grown in China (322'000 hectares), constituting 68 percent of the total organic rice in the region. The largest organic wheat areas were also in China (143'000 hectares) followed by Kazakhstan (over 19'000 hectares), representing almost all of the total organic wheat area in Asia.

Most of the organic permanent crop land was used for coconuts (over 213'000 hectares), tea (109'500 hectares), coffee (almost 82'000 hectares), and tropical and subtropical fruits (nearly 71'000 hectares). The Philippines had the largest organic coconut area, with almost 150'000 hectares, representing 70 percent of the total organic coconut area of the region. Most of the organic coffee in Asia was grown in

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Indonesia, where over 46'000 hectares were reported, followed by Timor-Leste (31'000 hectares); both countries represented 95 percent of the organic coffee area in Asia. Organic coffee represented 3.1 percent of the total coffee in Asia. Almost 3.1 percent of the total tea grown in Asia was organic; most of it was in China (90'000 hectares) followed by Myanmar (almost 8'000 hectares).

Producers

In 2017, 1.1 million organic producers were reported in Asia. India is the country with the most organic producers (835'000), followed by the Philippines (166'000). Unfortunately, many countries do not report the number of producers or only report the number of companies; thus it is assumed that the number of producers is higher. Since 2004, when there were 100'000 organic producers, the number has increased over eleven-fold.

Wild collection

In 2017, 4.4 million hectares of organic wild collection were reported in Asia. Unfortunately, detailed data is available for only 3 percent of the reported area. From the details available, wild nuts (almost 45'000 hectares) and wild medicinal plants (18'000 hectares) are the key commodities. Furthermore, bee pastures (over 56'000 hectares) play an important role. India is the country in the region with the largest organic wild collection area, with 1.8 million hectares, followed by China (1.3 million hectares), and Tajikistan (1 million hectares).

Market

In Asia, organic market data is not available for most of the countries, but we can assume that the market is continually growing. Seven countries (less than 20 percent of the countries with organic data) provided organic retail sales values (Table 13, page 72). From the data available, we can assume that at least 9.6 billion euros of organic products were sold in Asia. For China, 7.6 billion euros were reported for 2017, making the country the world's fourth largest market for organic products. Furthermore, Japan has a large organic domestic market valued, 1.4 billion euros, and South Korea reported a market of 330 million euros. More information about the Asian market is available in the chapter about the global market from Amarjit Sahota (page 146).

For more information about the Asian figures, see data tables for Asia, page 201.

Organic Agriculture in Asia: Graphs

Asia: The ten countries with the largest organic area 2017

Source: FiBL survey 2019

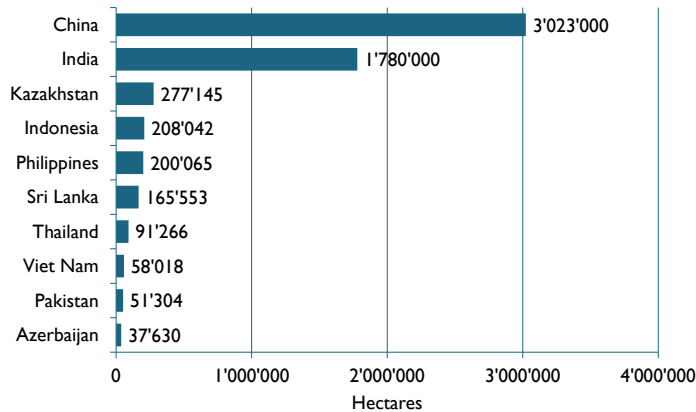


Figure 64: Asia: The ten countries with the largest organic agricultural area 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Asia: The countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019

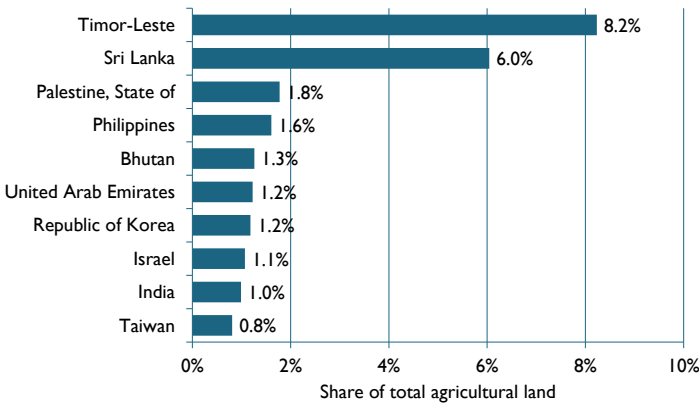


Figure 65: Asia: The countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Asia: Development of organic agricultural land 2000 to 2017

Source: FiBL-IFOAM-SOEL-Surveys 2002-2019

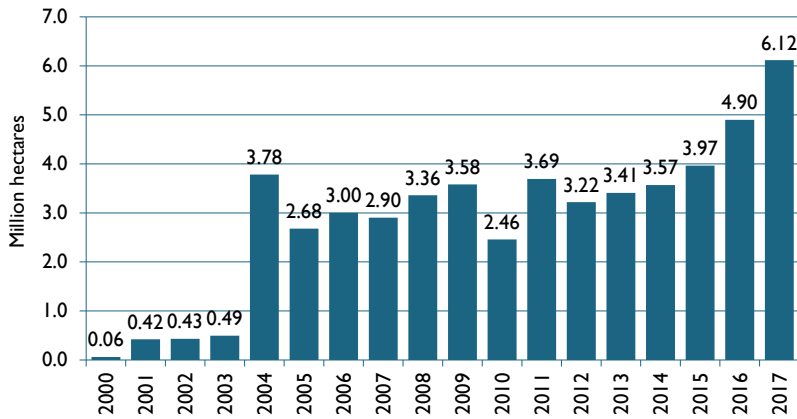


Figure 66: Asia: Development of organic agricultural land 2000 to 2017

Source: FiBL-IFOAM-SOEL surveys 2002-2019; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Asia: Use of organic agricultural land 2017

Source: FiBL survey 2019; based on information from the private sector, certifiers, and governments.

Land use types 2017

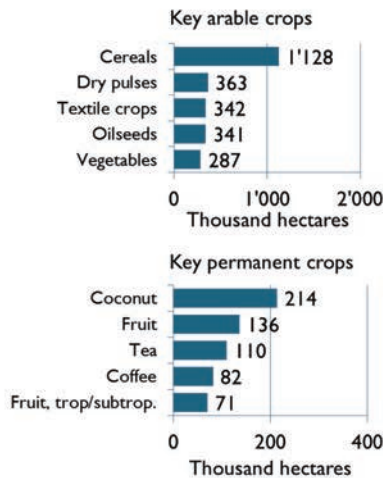
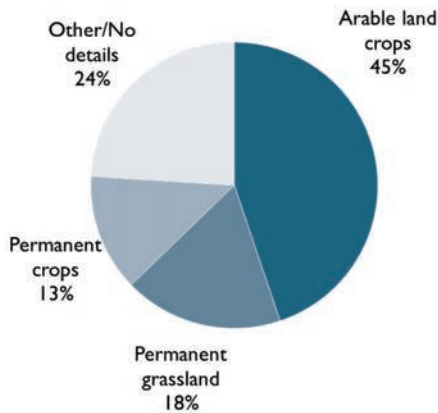


Figure 67: Asia: Use of organic agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Organic Agriculture in Asia: Tables

Table 49: Asia: Organic agricultural land, organic share of total agricultural land, and number of producers 2017

For information on data year, see page 325.

Country	Area [ha]	Organic share [%]	Producers [no.]
Afghanistan	272	0.001%	
Armenia	1'430	0.1%	36
Azerbaijan	37'630	0.8%	305
Bangladesh	8'056	0.1%	9'337
Bhutan	6'632	1.3%	4'295
Brunei Darussalam		Aquaculture only	
Cambodia	11'042	0.2%	6'760
China	3'023'000	0.6%	6'308
Georgia	1'452	0.1%	1'075
Hong Kong		Processing only	
India	1'780'000	1.0%	835'000
Indonesia	208'042	0.4%	17'948
Iran (Islamic Republic of)	11'916	0.03%	3'879
Iraq	60	0.001%	
Israel	5'758	1.1%	303
Japan	9'956	0.2%	2'130
Jordan	1'446	0.1%	23
Kazakhstan	277'145	0.1%	61
Kuwait	20	0.01%	
Kyrgyzstan	19'327	0.2%	1'097
Lao People's Democratic Republic	7'668	0.3%	1'342
Lebanon	1'353	0.2%	107
Malaysia	603	0.01%	119
Myanmar	10'248	0.1%	16
Nepal	9'361	0.2%	983
Oman	38	0.003%	4
Pakistan	51'304	0.1%	25
Palestine, State of	5'298	1.8%	1'449
Philippines	200'065	1.6%	166'001
Republic of Korea	20'700	1.2%	12'896
Saudi Arabia	17'075	0.01%	145
Singapore		Processing only	
Sri Lanka	165'553	6.0%	8'703
Syrian Arab Republic	19'987	0.1%	2'458
Taiwan	6'490	0.8%	2'598
Tajikistan	12'659	0.3%	10'486
Thailand	91'266	0.4%	38'120
Timor-Leste	31'278	8.2%	3
United Arab Emirates	4'687	1.2%	97
Uzbekistan		Wild collection only	
Viet Nam	58'018	0.5%	10'150
Total*	6'116'834	0.4%	1'144'263

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

*Total number includes data for countries with less than three operators.

Table 50: Asia: All organic areas 2017

Country	Agri- culture [ha]	Aqua- culture [ha]	Forest [ha]	Wild collection [ha]	Other non agri. land [ha]	Total [ha]
Afghanistan	272					272
Armenia	1'430			4'820		6'250
Azerbaijan	37'630	123	123	1'063		38'939
Bangladesh	8'056	5'848				13'903
Bhutan	6'632			15'787		22'419
Brunei Darussalam		29				29
Cambodia	11'042			4'330		15'372
China	3'023'000			1'260'000		4'283'000
Georgia	1'452			215	1'507	3'174
Hong Kong			Processing only			
India	1'780'000			1'780'000		3'560'000
Indonesia	208'042	4'160		18'269		230'470
Iran	11'916			50'219	20'000	82'135
Iraq	60					60
Israel	5'758					5'758
Japan	9'956					9'956
Jordan	1'446					1'446
Kazakhstan	277'145			863		278'008
Kuwait	20					20
Kyrgyzstan	19'327			10		19'337
Lao P.D.R.	7'668			17'068		24'736
Lebanon	1'353			209		1'562
Malaysia	603			1'115		1'718
Myanmar	10'248					10'248
Nepal	9'361			24'422		33'783
Oman	38					38
Pakistan	51'304			44'620		95'924
Palestine, State of	5'298					5'298
Philippines	200'065			14		200'079
Republic of Korea	20'700					20'700
Saudi Arabia	17'075					17'075
Singapore			Processing only			
Sri Lanka	165'553					165'553
Syrian Arab Republic	19'987			8'000		27'987
Taiwan	6'490	2				6'492
Tajikistan	12'659			1'055'890		1'068'549
Thailand	91'266	662		117'560		209'488
Timor-Leste	31'278					31'278
United Arab Emirates	4'687					4'687
Uzbekistan				5'000		5'000
Viet Nam	58'018	58'583		1'323		117'924
Total	6'116'834	69'406	123	4'410'796	21'507	10'618'666

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 51: Asia: Land use in organic agriculture (fully converted and in conversion) 2017

Land use	Crop group	Area [ha]
Arable land crops	Arable crops, no details	68'786
	Cereals	1'127'835
	Dry pulses	363'269
	Fallow land, crop rotation	61'425
	Flowers and ornamental plants	10'300
	Green fodders from arable land	1'629
	Medicinal and aromatic plants	59'963
	Mushrooms and truffles	1'545
	Oilseeds	341'397
	Root crops	20'349
	Seeds and seedlings	68
	Strawberries	44
	Sugarcane	2'399
	Textile crops	341'616
	Tobacco	4
	Vegetables	287'430
	Arable crops, other	41'685
Arable land crops total		2'729'745
Cropland, no details		62'105
Other agricultural land		278
Permanent crops	Berries	113
	Citrus fruit	5'018
	Cocoa	2'232
	Coconut	213'628
	Coffee	81'674
	Flowers and ornamental plants, permanent	20
	Fruit	136'210
	Fruit, temperate	44'644
	Fruit, tropical and subtropical	70'821
	Grapes	27'213
	Medicinal and aromatic plants, permanent	15'663
	Nuts	69'874
	Olives	6'501
	Tea/mate, etc.	109'543
	Permanent crops, other	25'792
Permanent crops total		808'946
Permanent grassland		1'081'677
Total		6'116'834

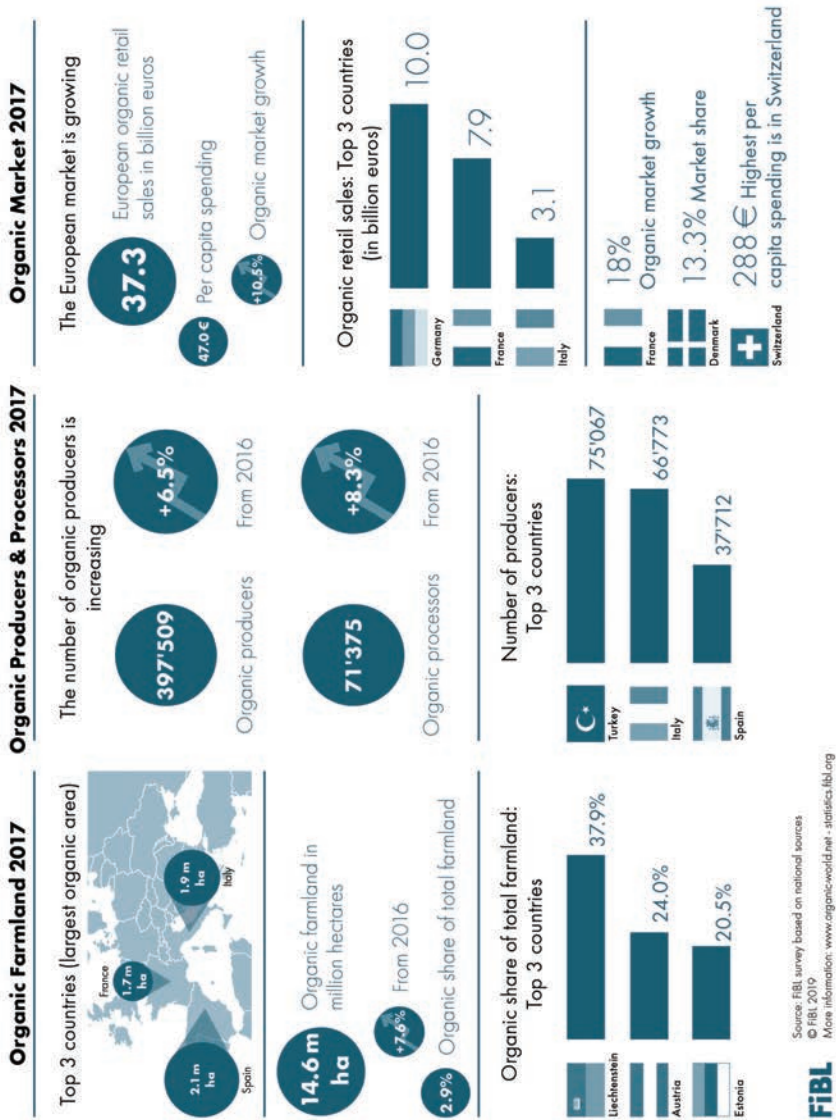
Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Table 52: Asia: Use of wild collection areas 2017

Land use	Area [ha]
Apiculture	56'267
Berries, wild	161
Fruit, wild	541
Medicinal and aromatic plants, wild	18'029
Mushrooms, wild	1'115
Nuts, wild	44'799
Oil plants, wild	303
Palm sugar	541
Rose hips, wild	10
Seaweed	136
Wild collection, no details	4'288'893
Total	4'410'796

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Organic Agriculture in Europe 2017



Europe



Map 4: Organic agricultural land in the countries of Europe 2017 (in hectares)

Source: FiBL-AMI survey 2019; based on information from the private sector, certifiers, governments, Eurostat and the Mediterranean Organic Agriculture Network. For detailed information on sources, please check annex.

Organic in Europe: Recent Developments

**HELGA WILLER,¹ BRAM MOESKOPS,² EMANUELE BUSACCA,³
NICOLAS DE LA VEGA⁴**

In 2017, the European organic food and farming sector continued to excel both in terms of organic production and market growth. Data for 2017 (for full data see page 216) shows the European organic food market recording significant growth – increasing by more than ten percent to 37.3 billion. At the same time, the organic sector faces a number of challenges, notably that the growth rates in organic area, in spite of recent stronger growth, continues to lag behind the dynamic growth seen within the organic food market (Figure 68). A major milestone in 2018 was the publication of the new European Union rules on organic production and labelling of organic products in May, and in June 2018, the European Commission launched its proposal for the Common Agricultural Policy for the period 2021 to 2027.

Europe: Growth of organic area and retail sales 2000-2017 compared

Source: FiBL-AMI surveys 2006-2019

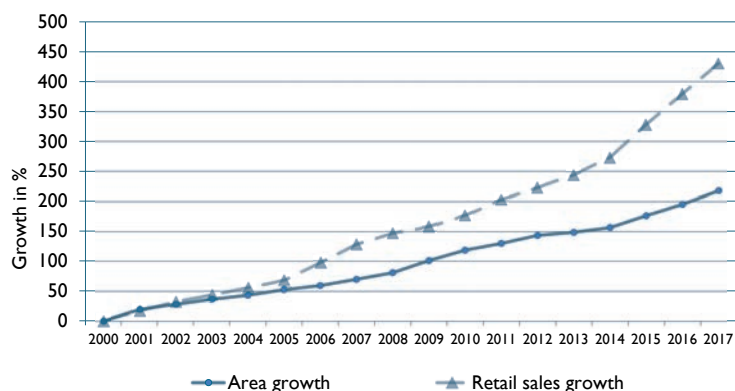


Figure 68: Europe and the European Union: Growth of organic farmland and retail sales compared, 2000-2017

Source: FiBL-AMI surveys

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New EU organic rules adopted

On 30 May 2018, the European Parliament and the Council (2018) adopted new European Union (EU) rules on organic production and labelling of organic products. The new EU organic regulation will apply from 01 January 2021. The European organic food and farming movement, represented by IFOAM EU, calls on both the EU institutions and all the stakeholders to work together in the next two years on the development of the secondary legislation (implementing and delegated acts).¹ This should ensure that the regulation will be applicable to the work of all parts in the organic production chain: farmers, producers, traders, and the control system.

As for the new regulation, the categories of products that can be organic certified are live and unprocessed agricultural products (animals, including the ones from aquaculture, plants, algae and seaweed, seed and plant reproductive material, mushrooms), processed food, and feed. The novelty is represented by Annex I of the new regulation, which provides a list of products that are not clearly covered by the mentioned categories but that can still be certified. This list includes specific yeasts, maté, vine leaves, palm hearts, hop shoots, silkworm cocoon, natural gums and resins, essential oils, cork stoppers, raw cotton, raw wool, raw hides, plant-based traditional herbal preparations. It also includes sea salt and other salts for food and feed, even if those are not living organisms. Catering operations, i.e., restaurants and canteens, are outside of the scope of the regulation. However, national or private standards can be applied. For more information about the main changes, see IFOAM EU (2018).

Organic regulations for Russia and Ukraine

Not only did the European Union see relevant regulatory developments in 2018. In June 2018, a new law regulating production, storing and transportation of organic produce in Russia was signed. The new law, previously approved by both chambers of the Russian Parliament, will enter force on January 1, 2020. And on 30 July, the President of Ukraine, signed the Law of Ukraine on the basic principles and requirements for organic production, trade and labelling of organic products, which is harmonized with the European Union organic legislation.

Proposal for the Common Agricultural Policy for 2021 to 2027 launched

In June 2018, the European Commission launched its proposal for the Common Agricultural Policy (CAP) for the period 2021 to 2027. According to IFOAM EU already today organic farming is playing a leading role in making European agriculture more sustainable, the next CAP should reinforce this by better rewarding farmers for the public goods that they provide. With the right incentives and an adequate budget in the next CAP, many more farmers could make an even larger

¹ The text published in the Official Journal on June 2018 14, represents the “Basic Act.” This means that many details of the text still have to be developed. This will happen in the next two years through other legal acts called “delegated acts” and “implementing acts.” The new EU organic regulation will apply from 2021.

contribution to the environment, climate, and rural communities beyond 2020 (IFOAM EU, 2018).

The organic movement is concerned about the significant cuts foreseen to the second pillar of Rural Development, which so far has been providing crucial support to farmers for the conversion to organic and has helped them with maintenance payments. The second pillar should be strengthened, and more than 30 percent of its budget should be dedicated to the climate and environment CAP objectives (IFOAM EU, 2018).

The newly proposed Eco-schemes offer another opportunity to compensate farmers who want to do more for the climate and the environment, using money from the first pillar that constitutes over three quarters of the total CAP budget. However, essential elements are still missing, including a minimum budget for Eco-schemes and defining the type of agricultural practices and systems that are eligible for support. This will be a key focus of discussion between Council and Parliament (IFOAM EU, 2018).

Research

Organic farming research is funded under national research programs or national organic action plans as well as through European programmes. Several organic farming research projects have been funded under the EU framework programmes since the mid-1990s. So far, the following projects focussing on organic agriculture have been funded by the current framework programme (Horizon 2020): OK-Net Arable, OK-Net EcoFeed¹ (see more information below), and LIVESEED², ECOBREED³, BRESOV⁴ (three projects on organic seed and plant breeding). RELACS⁵ and Organic-PLUS,⁶ which will investigate alternatives for contentious inputs used in organic farming, have started in in spring 2018. A new project addressing animal welfare in organic farming, PPilow, is expected to start in 2019.

Under CORE Organic,⁷ a new call for projects was launched in 2016 as a result of which 12 European projects were selected. The projects have started in the course of 2018.⁸

Organic Farm Knowledge for farmers and advisers to exchange knowledge

In December 2018, the Horizon 2020-funded “OK-Net Ecofeed” project launched the extended knowledge platform Organic Farm Knowledge ([www.organic-](http://www.organic-farmknowledge.eu)

¹ <https://ok-net-ecofeed.eu/>

² <https://www.liveseed.eu/>

³ <http://ecobreed.eu/>

⁴ <https://bresov.eu/>

⁵ <https://relacs-project.eu/>

⁶ <https://organic-plus.net/>

⁷ CORE Organic was initiated as a part of the Commission’s ERA-NET Scheme in 2004. It intends to step up cooperation between national research activities and aims to enhance the quality, relevance, and utilisation of European research resources through coordination and collaboration.

⁸ <http://projects.au.dk/coreorganicofund>

farmknowledge.eu), which was originally set up in the framework of OK-Net Arable. The platform aims to promote the exchange of information and share practical solutions among farmers across Europe. The platform is available in 12 languages. So far, the platform focuses on solutions for organic arable farming. In 2019, the platform will be expanded to cover tools and solutions related to organic feed for pigs and poultry, as well as seed, breeding, and many other topics. The final goal is for the platform to become the European reference platform for practical information on organic farming.

Field days – Exchange meetings of farmers and researchers

National and international exchange meetings of farmers, researchers, and other actors have been gaining in importance in recent years. The French “Tech and Bio” and the Swiss organic arable day (“Bioackerbautag”) have taken place for several years now. In Germany, in 2019, the second edition of the organic field days (Ökofeldtage) will take place. The first field days in 2017 attracted more than 8'000 visitors. In 2018, the Biofeldtage (organic field days) successfully took place for the first time in Austria.

Science Day 2018 at Biofach

On 16 February, the sixth Science Day took place at BIOFACH. Science Day is a joint event of TP Organics¹, European Technology Platform for Organic Food and Farming, and TIPI, the Technology Innovation Platform of IFOAM – Organics International. The morning session was dedicated to EU Research and Innovation Policy and was organised in cooperation with ERA-Net CORE Organic. Policy makers from the European Commission, France, and Germany discussed the opportunities of a possible large research mission for the transformation of food and farming systems in Europe to be funded by Horizon Europe, the follow-up framework programme of Horizon 2020. In the afternoon session TIPI elaborated on research gaps in organic food and farming systems in the Global South and its list of 100 questions to be addressed by novel organic food and farming systems. The aim was to inspire the development of strategic regional research agendas.

Organic Innovation Days

The 4th edition of the Organic Innovation Days,² the annual event of TP Organics, took place in collaboration with the Global Sustainable Technology & Innovation Conference 2018 conference in Brussels in November 2018. The Organic Innovation Days aim to discuss research needs and innovations within and outside the organic sector together with a broad range of stakeholders of the organic sector – from companies and researchers, farmers and farmer organisations to policy makers across Europe. The Organic Innovation Days focused on the EU's next research and innovation framework programme for the period 2021-2027 Horizon Europe and

¹ www.tporganics.eu

² <http://tporganics.eu/organic-innovation-days/>

opportunities for organic actors. In addition, the winner of the call for organic innovations was presented: the Spanish agro-technological start-up Polyfly that commercializes hoverflies as alternative, effective and natural pollinators.

Horizon Europe

Horizon Europe is the follow-up programme of Horizon 2020. It will run from 2021 until 2027. On 12 December 2018, the plenary of the European Parliament adopted its position on the Regulation and Decision on the Specific Programme of Horizon Europe. According to the position of the European Parliament, Horizon Europe should “accelerate the transition towards sustainable approaches in all forms of agriculture, including conventional and organic agriculture.” The European Parliament has also strengthened commitments on societal engagement, in particular, the inclusion of civil society organisations as well as of European Technology Platforms such as TP Organics in the implementation of Horizon Europe. However, the Parliament failed to support structured engagement with clear targets and indicators to measure progress.

While the European Parliament has recognized the importance of the Sustainable Development Goals (SDGs) and the Paris Agreement, TP Organics remains concerned regarding the public return of Horizon Europe. TP Organics is also concerned about the application of innovation under Horizon Europe as the European Parliament failed to remove the “innovation principle,” a tool to undermine important regulations, in particular the precautionary principle, putting the health and environment of EU citizens at risk. In 2019, the Council will adopt its position on Horizon Europe after which the final version of the legal texts will be negotiated between European Parliament, Council, and European Commission.

ICOAS Conference – Scientific exchange with a focus on Central and Eastern Europe

From November 7-9, 2018, the 6th International Conference on Organic Agriculture Sciences (ICOAS) was held in Austria. High-level international experts met at Esterházy Palace, Eisenstadt, to exchange knowledge and experiences from different areas of organic production. The theme of the conference, organized by the Research Institute of Organic Agriculture FiBL and the Esterhazy Foundation with funding from the Austrian government, was “Dynamic Developments in Organic Research – strengthening Partnerships across Europe and beyond.” ICOAS brought together scientists, advisors, entrepreneurs, policymakers, associations, non-governmental organisations, and other stakeholders to meet and discuss latest research results and developments in organic agriculture in Central and Eastern European countries. Two hundred participants from 30 countries actively discussed the latest developments in the organic sector. More information is available on <http://icoas2018.org/>

References and further reading

Council of the European Union (2007): Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 OJ L 189, 20.7.2007, p. 1–23. Available at <http://data.europa.eu/eli/reg/2007/834/oj>

- ECORYS (2017): Modernising and Simplifying the Common Agricultural Policy: Summary of the results of the public consultation for European Commission DG AGRI, 07 July 2017, revised 06 September, Available at: ec.europa.eu/agriculture/sites/agriculture/files/consultations/cap-modernising/summary-public-consul.pdf
- European Parliament and the Council (2018): Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007. OJ L 150, 14.6.2018, p. 1–92. Available at <https://eur-lex.europa.eu/eli/reg/2018/848/oj>
- European Commission (2017a): The Future of Food and Farming - Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - The Future of food and farming, COM (2017) 0713 final. Available at: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2017:713:FIN>
- European Commission (2017b): Reflection Paper on the Future of EU Finances, COM(2017) 358. Available at: ec.europa.eu/commission/sites/beta-political/files/reflection-paper-eu-finances_en.pdf
- European Commission (2019) Future of the common agricultural policy. The Europa website. Available at https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en
- IFOAM EU (2018a): The New Organic Regulation. What will change? Press release of June 15, 2018 of IFOAM EU, Brussels. Available at <https://www.ifoam-eu.org/en/news/2018/06/15/new-eu-organic-regulation-what-will-change>
- IFOAM EU (2018b): Organic Movement asks for higher environmental ambition in nes CAP. Press release of IFOAM EU of June 1, 2018, Brussels. Available at
- Stolze, M., Sanders, J., Kasperczyk, N., Madsen, G., (2016): CAP 2014-2020: Organic farming and the prospects for stimulating public goods. IFOAM EU Group, Brussels. <https://www.ifoam-eu.org/en/news/2018/06/01/press-release-organic-movement-asks-higher-environmental-ambition-new-cap>
- TIPI – Technology Platform of IFOAM - Organics International (2017): Science Day 2017 at BIOFACH. The website of the Research Institute of Organic Agriculture, Frick. Available at <http://www.fibl.org/en/service-en/news-archive/news/article/report-from-science-day-2017-at-biofach.html>

Websites

- › ec.europa.eu/agriculture/future-cap_en: European Commission on the CAP reform
- › ec.europa.eu/agriculture/organic: European Commission's organic farming website
- › ifoam-eu.org: International Federation of Organic Agriculture Movements EU - IFOAM EU
- › organic-market.info: Market News and updates: www.organic-market.info
- › tipi.ifoam.org: Technology Innovation Platform of IFOAM (TIPI)
- › tporganics.eu: European Technology Platform TP Organics

Milestones of Organic Agriculture in Europe

Year	Milestones ¹
1920s/1930s	Natural farming evolves in Germany ("Natürlicher Landbau, Landreform") (Vogt 2001).
1924	Rudolf Steiner's Agriculture Course held at Koberwitz (now Kobierzyce, Poland), marking the beginning of biodynamic farming.
1946	Foundation of the Soil Association, UK.
1946	Hans and Maria Müller found the Co-Operative for Cultivation and Utilization ("Anbau- und Verwertungsgenossenschaft Heimat AVG) in Switzerland, marking the beginnings of the organic-biological agriculture (Bio Suisse 2006).
1972	The International Federation of Organic Agriculture Movements IFOAM is founded in Versailles, France.
1973	Research Institute of Organic Agriculture FiBL founded in Switzerland.
1977	1st IFOAM International Scientific Conference "Towards a Sustainable Agriculture" takes place in Sissach, Switzerland.
1980	The first version of the "Recommendations for international standards of biological agriculture" is accepted by the biennial IFOAM General Assembly in Brussels, based on the organic standards developed in Switzerland, France, and the United Kingdom.
1981	Organic farming is mentioned in the Austrian Codex Alimentarius.
1984	Foundation of the first chair for organic agriculture worldwide in Witzenhausen, University of Kassel, Germany.
1985	The French government implements a national voluntary organic standard associated with the AB logo.
1987	Denmark is the first country to implement a regulatory framework for organic farming.
1988	For the first time, area-based support for organic farming granted, within the framework of the EU Extensification Programme (support only in Germany).
1990	The first BioFach, the international trade fair for organic products, takes place in Ludwigshafen am Rhein, Germany.
1991	The first European organic regulation - Council Regulation (EEC) 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs - is published. It comes into force in 1993. It defines how agricultural products and foods that are designated as organic/ecological/biological products have to be grown and labelled.
	Foundation of the informal IFOAM EU group in Prague.
1992	The European Union's agri-environmental programme is launched (Council Regulation (EEC) No 2078/92).
1999	First publication from Eurostat, the statistical office of the European Union, on organic agriculture in the European Union, with data from 1997.
	Organic conference in Baden near Vienna - 1st step towards the European Action Plan.
	EU Organic Regulation regulates animal husbandry (Regulation (EC) 1804/99).
2000	Publication of the book "The World of Organic Agriculture" for the first time by SÖL and IFOAM; since 2001 in collaboration with the Research Institute of Organic Agriculture.
2001	BSE crisis heralds new phase for organic farming in the European Union.
2001	European Conference "Organic Food and Farming - Towards Partnership and Action in Europe" takes place in Copenhagen, Denmark. The Copenhagen Declaration stipulates an organic action plan for Europe.

¹ For a detailed history of organic agriculture in Europe (and other parts of the world) see book „Organic Farming: An International History“ edited by Willi Lockeretz, published by CABI; Wallingford 2007

Year	Milestones ¹
2002	Launch of the online archive Organic Eprints for research publications on organic agriculture (www.orgprints.org).
2004	Adoption of the first European Action Plan for Organic Farming.
2003	Formal foundation of the IFOAM-EU Group.
2004	Launch of QualityLowInputFood (QLIF), the largest EU research project in organic farming to date.
2004	CORE Organic ("Coordination of European Transnational Research in Organic Food and Farming Systems") starts with the aim increase cooperation between national research activities.
2007	TP Organics, the European Technology Platform for Organic Food and Farming Research is set up. Revised EU organic regulation published (Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products).
2014	Publication of the 2nd European Action Plan for Organic Farming.
2015	First edition of Organic Innovation Days is organized by TP Organics.
2018	Revised EU regulation on organic farming published (Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007). It will enter into force on 1 January 2021.

Compiled by Helga Willer, FiBL, Bram Moeskops, IFOAM EU, and Otto Schmid, FiBL

References and further reading

- Bio Suisse 2006: Die organisch-biologische Richtung. Dossier Nr. 416 Bio Suisse vom 18. April 2006. Available at the LID website at <https://www.lid.ch/medien/dossier/detail/info/artikel/2-die-organisch-biologische-richtung/>
- Lockeretz, Willi (2007): Organic Farming: An International History. CABI; Wallingford 2007
- Paull, John (2011) Attending the First Organic Agriculture Course: Rudolf Steiner's Agriculture Course at Koberwitz, 1924. European Journal of Social Sciences – Volume 21, Number 1 (2011), <https://core.ac.uk/download/pdf/10930856.pdf>
- Vogt, Gunter (2001) Geschichte des ökologischen Landbaus im deutschsprachigen Raum [History of organic agriculture in the German-speaking region]. Ökologie & Landbau, 118 (2/2001), pp. 47-49. <http://orgprints.org/1110/>

Europe and the European Union: Key indicators 2017

Table 53: Europe and the European Union: Key indicators 2017

Indicator	Europe	European Union	Top 3 countries Europe
Organic farmland in hectares	14.6 million ha	12.8 million ha	Spain (2.1 million ha) Italy (1.9 million ha) France (1.7 million ha)
Organic share of total farmland	2.9 %	7.2 %	Liechtenstein (37.9%) Austria (24.0%) Estonia (20.5%)
Increase in organic farmland 2016-2017 in hectares	1.0 million ha	0.8 million ha	Russia (+341'778 ha) France (+206'373 ha) Germany (+121'837ha)
Relative increase in organic farmland 2016-2017	7.6%	6.4%	Russia (+108 %) Malta (+80%) Bosnia and Herzegovina (+28%)
Land use [in million hectares]	Arable crops: 6.8 Permanent crops: 1.6 Permanent pastures: 5.9	Arable crops: 5.5 Permanent crops 1.4 Permanent pastures: 5.7	
Top arable crop groups	Cereals: 2.5 million ha Green fodder: 2.4 million ha Oilseeds: 0.4 million ha	Green fodder: 2.2 million ha Cereals: 2.0 million ha Dry pules: 0.4 million ha	Largest arable areas: France (0.9 million ha) Italy (0.8 million ha) Russia (0.6 million ha)
Top permanent crop groups	Olives: 0.6 million ha Grapes: 0.3 million ha Nuts: 0.3 million ha	Olives: 0.5 million ha Grapes: 0.3 million ha Nuts: 0.3 million ha	Largest permanent crop areas: Spain (0.5 million ha) Italy (0.5 million ha) Turkey (0.2 million ha)
Wild collection area	18.0 million ha	14.7 million ha	Finland (11.6 million ha) Romania (1.8 million ha; 2014) Macedonia, FYR (1.2 million ha)
Producers [no.]	397'509	305'394	Turkey: (75'067) Italy (66'773) Spain (37'712)
Processors [no.]	71'375	68'164	Italy (18'092) Germany (15'0191) France (14'859)
Importers [no.]	5'314	4'585	Germany (1'692) Switzerland (548) Netherlands (385)
Retail sales	37.3 billion euros	34.3 billion euros	Germany (10'040 million euros) France (7'921 million euros) Italy (3'137 million euros)
Growth of retail sales 2016-2017	10.5%	10.9%	France (18 %) Spain (16 %) Denmark, Liechtenstein (15%)
Organic share of total market	No data	No data	Denmark (13.3 %) Sweden (9.1%) Switzerland (9.0 %)
Per capita consumption [euros]	47 euros	67 euros	Switzerland (288 euros); Denmark (278 euros) Sweden (237 euros)

Source: FiBL-AMI survey 2019.

For detailed data sources see annex.

Organic Farming and Market Development in Europe and the European Union¹

HELGA WILLER,² DIANA SCHAACK,³ AND JULIA LERNOUD⁴

In this article we focus on organic farming and market statistics in Europe – the 28 Member States of the European Union,⁵ the EU Candidate and Potential Candidate countries (CPC: Albania, Bosnia-Herzegovina, Kosovo, Macedonia FYROM, Montenegro, Serbia, Turkey), the members of the European Free Trade Association (EFTA: Iceland, Norway, Liechtenstein, Switzerland), as well as other European countries: Andorra, Belarus, Moldova, Russian Federation, San Marino and Ukraine.

In 2017, the development of the organic sector in Europe was characterized by two trends. On the one hand, the market showed a double-digit growth rate again (10.5 percent in Europe; 10.9 percent in the European Union). On the other hand, organic farmland growth continued to be slower than that of the market, but it was considerably faster than in the first years of the previous decade, increasing by 7.9 percent in Europe and 6.4 percent in the European Union. The trend of the market growing at a faster rate than the area (Figure 68) has been occurring for several years, showing that production is still not keeping pace with consumer demand. However, the total organic area is only one factor. When comparing the development of the organic area with that of the retail sales, it is more important to look at land use and crop patterns, the types of livestock husbandry, and, most of all, the production value. It is also important to note in this context that growth rates of more intensive production like fruit and vegetables, or milk production have increased significantly over the past years (Table 56, Figure 80).

¹ For the 2019 edition of “The World of Organic Agriculture,” we have also updated the article “Growth trends in European organic food and farming,” published by IFOAM EU and the Research Institute of Organic Agriculture FiBL in “Organic in Europe, 2016” (Willer et al. 2016). Therefore, the structure of this chapter is different from the other regional statistics chapters in this book.

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⁵ The 28 member states of the European Union consist of the EU-13 countries, which became members of the European Union in or after May 2004, and of the EU-15 countries, who were member countries of the European Union before the accession of ten candidate countries on May 1, 2004. In this report, we publish the 2017 data, which is why the United Kingdom is included in the European Union data.

I Key facts and figures: Production and market highlights

Almost 15 million hectares of farmland were organic in Europe in 2017 – Spain had the largest area

In Europe, 14.6 million hectares were managed organically in 2017 (European Union: 12.8 million hectares). With more than 2 million hectares, Spain continued to be the country with the largest organic area in Europe (almost one-sixth of the European farmland), followed by Italy (1.9 million hectares), and France (1.7 million hectares).

European organic farmland increased by one million hectares

The organic land increased by one million hectares in Europe (with a major increase in farmland in the Russian Federation) and by 0.8 million hectares in the European Union, representing an increase of 7.6 percent in Europe and 6.4 percent in the European Union. Growth was a bit lower than in 2016 but higher than in the first years of the current decade. In the decade 2008-2017, the organic agricultural land increased by more than two thirds.

Liechtenstein is the country with the highest organic farmland share in the world – in ten countries more than ten percent of the farmland is organic

Organic farmland in Europe constitutes 2.9 percent of the total agricultural land and 7.2 percent in the European Union. In Europe (and globally), Liechtenstein has the highest organic share of all farmland (37.9 percent) followed by Austria, the country in the European Union with the highest organic share of agricultural land (24 percent). In Europe, ten countries have an organic area share of at least 10 percent. In eight countries in the European Union, more than ten percent of farmland is organic.

Organic producers and processors on the rise

There were almost 400'000 organic producers in Europe (European Union: almost 310'000), with the largest numbers in Turkey (75'0670) and Italy (66'773). While in 2017 the number of producers grew by almost 7 percent in Europe (almost 4 percent in the European Union), growth was 79 percent in Europe and 55 percent in the European Union from 2008-2017.

There were more than 71'000 organic processors in Europe (+8.3 percent compared to 2016) and more than 68'000 in the European Union (+8.8 percent). The country with the largest number of processors was Italy (18'092).

Double-digit growth for importers

The number of importers grew faster than the number of producers and processors: More than 5'300 importers (+ 14.1 percent) were counted in Europe and almost 4'600 in the European Union (+15.5 percent). Germany had the most importers (1'692).

Retail sales heading towards the 40 billion euro mark

Organic retail sales in Europe were valued at 37.3 billion euros (34.3 billion euros in the European Union). The European Union represents the second largest single market for organic products in the world after the United States. With 10 billion euros of retail sales, Germany is the biggest market in Europe and the second biggest in the world.

Double-digit market growth

The European organic market recorded a growth rate of 10.5 percent (European Union: 10.9 percent), which is the third time retail sales have shown a double-digit growth rate since the financial crisis. Among the key markets, the highest growth was observed in France (18 percent). In the decade 2008-2017, the value of European and European Union organic markets almost doubled.

European consumers spend more on organic food

European consumers spent 47 euros on organic food per person in 2017 (European Union: 67 euros). Per capita consumer spending on organic food has doubled in the last decade. The Swiss spent the most money on organic food per capita (288 euros).

Highest organic market shares are in Europe

Globally, European countries account for the highest shares of organic food sales as a percentage of their respective food markets. Denmark has the highest organic market share globally (13.4 percent) and was the first country to pass the 10 percent mark.

2 Organic agricultural land: Area, organic shares, growth

Table 54: Europe: Organic agricultural land in Europe and the European Union 2017

	Organic area [million ha]	Organic share [%]	Change 2016-2017 [%]	Change 2016-2017 [million ha]	Change 2008-2017 [%]	Change 2008-2017 [million ha]
European Union	12.8	7.2%	6.4%	0.8	67%	5.1
Europe	14.6	2.9%	7.6%	1.0	76%	6.2

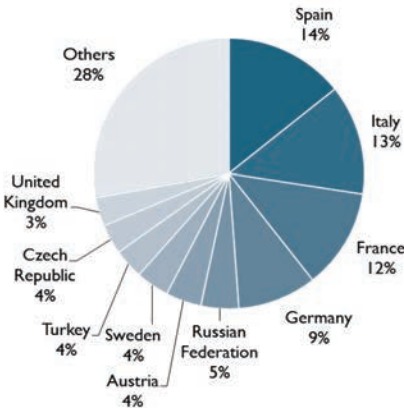
Source: FiBL-AMI survey based on Eurostat and national data sources. For country details, see Table 61.

2.1 Organic agricultural land

In 2017, 14.6 million hectares were farmed organically in Europe and almost 12.8 million hectares in the European Union (Table 54). Almost 90 percent of Europe's organic farmland was in the European Union. The countries with the largest areas of organic land were Spain (one-sixth of Europe's organic farmland), Italy, France, Germany, and, as a newcomer, the Russian Federation. Slightly more than half of Europe's organic farmland was in these countries (Figure 69). A bit more than one-fifth of the world's organic farmland was in Europe. While in former years this share amounted to one quarter of the world's organic farmland, it went down due to an impressive area increase in Australia (see Table 2, page 40).

Europe: Distribution of organic farmland by country 2017

Source: FiBL-AMI survey 2019



European Union: Distribution of organic farmland by country 2017

Source: FiBL-AMI survey 2019

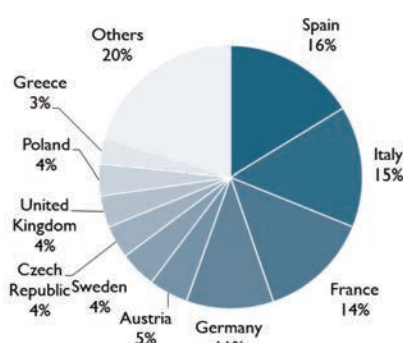


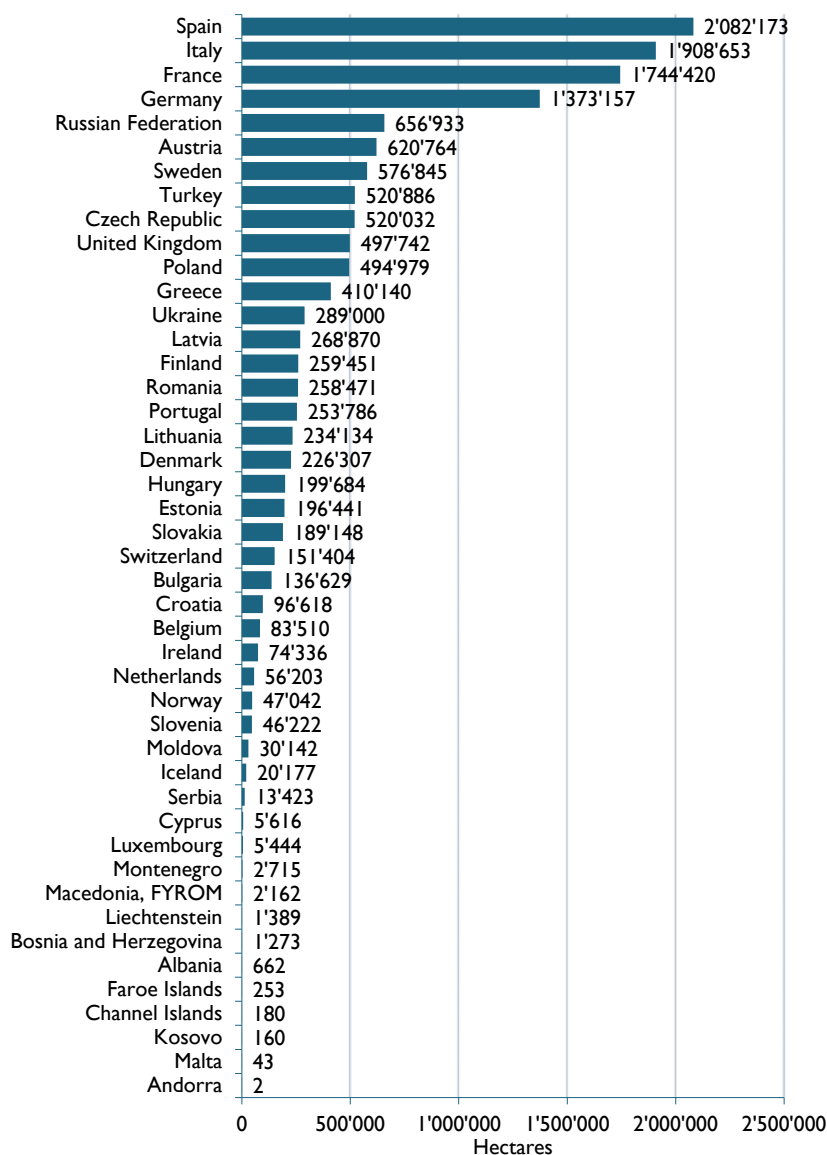
Figure 69: Europe: Distribution of organic farmland by country 2017

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat

For detailed data sources see annex

Europe: Organic agricultural land by country 2017

Source: FiBL-AMI survey 2019

**Figure 70: Europe: Organic agricultural land by country 2017**

Source: FiBL-AMI survey 2019 based on Eurostat national data sources.

For detailed data sources see annex.

2.2 Organic shares of total agricultural land

In Europe, 2.9 percent of the agricultural land is organic and in the European Union, 7.2 percent (Table 54). In ten countries (European Union: eight), ten percent or more of the agricultural land is managed organically (Figure 71). The countries with the highest organic shares are Liechtenstein (37.9 percent), Austria (24.0 percent), Estonia (20.5 percent), and Sweden (18.8 percent). Liechtenstein is the country with the highest organic farmland share in the world.

2.3 Growth of organic agricultural land

In 2017, the organic agricultural land in Europe increased by 1 million hectares (EU: 0.8 million hectares) or 7.6 percent (EU 6.4 percent). Growth was therefore comparable with that of 2015 and 2016 and considerably faster than between 2011 and 2014 (Figure 72, Figure 73). In Europe, the absolute growth was higher than in the European Union, due to a major increase in organic farmland in the Russian Federation reported by one international certifier.

The countries that contributed the most to the growth were the Russian Federation, France, Germany, and Italy, with almost 800'000 additional hectares together (Figure 74). The highest relative increases were in the Russian Federation (+108 percent)¹ and Malta (+81 percent). However, there were also countries that showed stagnation or only a small increase in organic land such as the United Kingdom or Slovakia. In some countries, such as Ukraine, Poland, and Bulgaria, the organic area decreased (Table 61).

2.4 Conversion status of organic farmland

Most countries provided data on their fully converted and under-conversion areas, but such details are not available for all countries – for instance, for Austria, Germany, and Switzerland (Table 62).

In Europe, of the 14.6 million hectares of organic agricultural land, at least 9.3 million hectares were fully converted (8.3 million out of 12.8 million hectares the European Union), and at least 2.8 million hectares were under conversion (2.5 million in the European Union). This suggests that, in the near future, an increase in the supply of organic products can be expected (Figure 75).

By country, the largest in-conversion areas are in Central Eastern European countries, notably Romania (109'365 hectares), Poland (108'655 hectares), Hungary (95'200 hectares), and Bulgaria (88'166 hectares) (Table 62).

¹We assume that some of this increase is due to the more complete data received for this survey.

Europe: Organic share of total agricultural land by country and country group 2017

Source: FiBL-AMI survey 2019

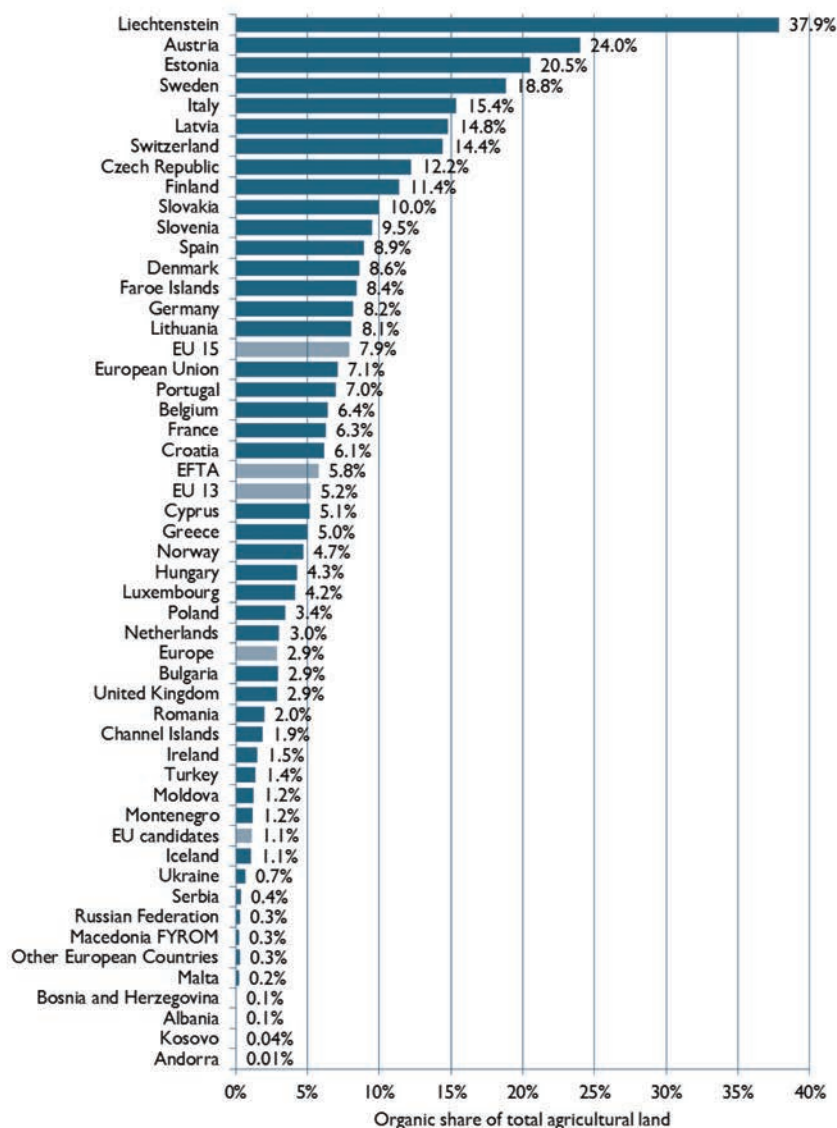


Figure 71: Europe: Organic shares of total agricultural land 2017

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat

For detailed data sources see annex of this book.

EU Candidates = Candidates and Potential Candidate countries of the European Union; EFTA = European Free Trade Association; EU = European Union; EU-13 = countries, which became members of the European Union in or after May 2004; EU-15 = countries, which were member countries of the European Union before May 2004.

Europe and European Union: Development of organic agricultural land 1985-2017

Source: Nic Lampkin, FiBL-AMI survey 2019, based on national data sources and Eurostat

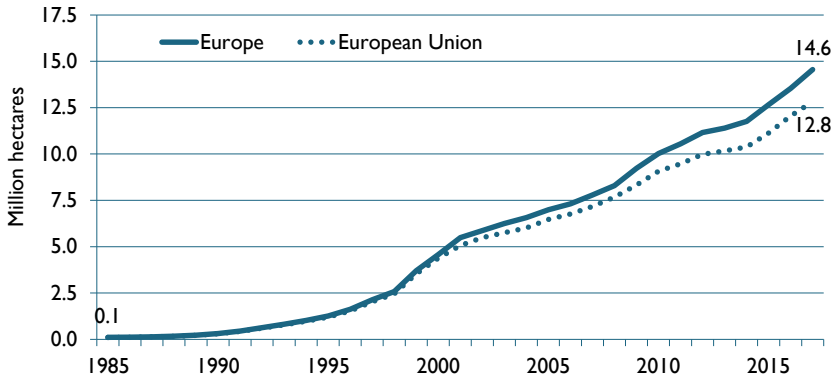


Figure 72: Europe and the European Union: Development of organic agricultural land 1985-2017

Source: FiBL-AMI Surveys 2006-2019 based on national data sources and Eurostat. Data from before 2000 based on surveys from Nic Lampkin. The data for the European Union cover all countries that were members of the European Union in 2017.

Europe and European Union: Growth rates of organic agricultural land 1985-2017

Source: FiBL-AMI survey 2019, based on national data sources and Eurostat

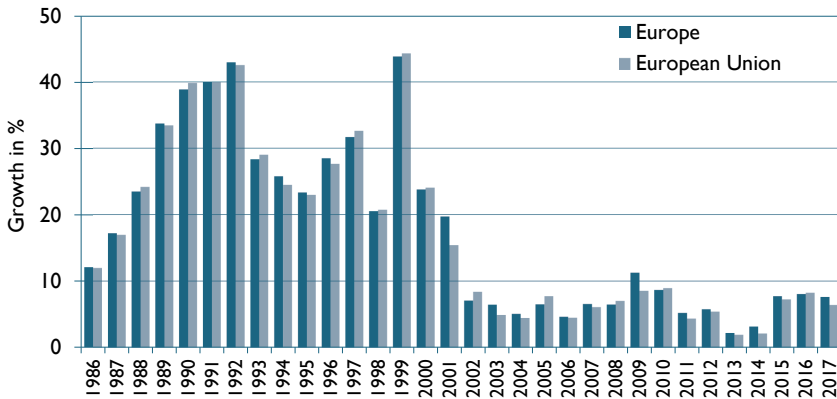
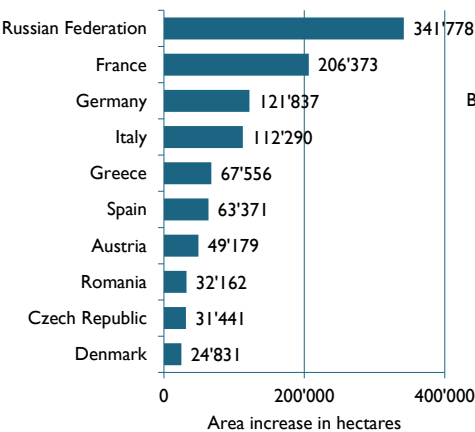


Figure 73: Europe: Growth rates for organic agricultural land in Europe and the European Union 1985-2017

Source: FiBL-AMI Surveys 2006-2019 based on national data sources and Eurostat. Data from before 2000 based on surveys from Nic Lampkin. For detailed data sources see annex.

Europe: The 10 countries with the highest growth in organic farmland in 2017 (hectares)

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources



Europe: The 10 countries with the highest relative growth in organic agricultural land in 2017 (%)

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources

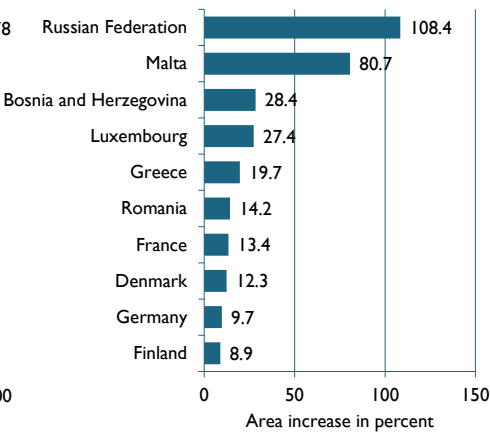


Figure 74: Europe: The ten countries with the highest growth in organic agricultural land in hectares and percentage in 2017

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat
For detailed data sources see annex.

Europe and European Union: Conversion status of organic farmland 2017

Source: FiBL-AMI survey 2019

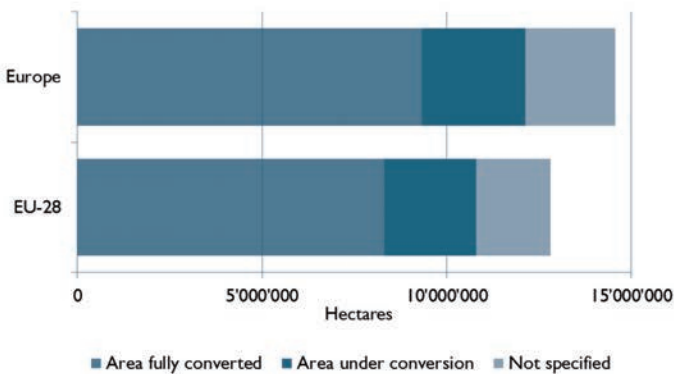


Figure 75: Europe and the European Union: Conversion status of organic land in Europe and the European Union 2017

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat
For detailed data sources see annex.

3 Land use and crops grown in organic agriculture

3.1 Land use

For all countries in Europe, land use and crop details are available. In this respect, Europe differs substantially from other parts of the world, for which such data is often not available. The area for all land use types¹ has grown steadily since 2004.²

Table 55: Europe and the European Union: Land use 2017

Crop group	Europe [Million hectares] (Share of total)	European Union [Million hectares] (Share of total)	Change 2016-2017 Europe/EU [%]	Change 2008-2017 Europe/EU [%]
Arable land	6.8 (5.7%)	5.5 (4.6%)	9.9%/5.4%	98%/83%
Permanent grassland	5.9 (3.1%)	5.7 (8.9%)	4.4%/4.6%	53%/52%
Permanent crops	1.6 (8.7%)	1.4 (11.7%)	5.3%/6.4%	116%/103%
Total	14.6 (2.9%)	12.8 (7.2%)	7.5%/6.4%	76% / 67%

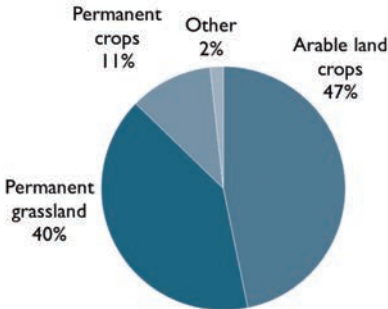
Source: FiBL-AMI survey 2019 based on national data sources Eurostat.

Note: Total includes other agricultural land and correction values for double-cropped areas.

Europe and European Union: Land use in organic agriculture 2017

Source: FiBL-AMI survey 2019

Europe



European Union

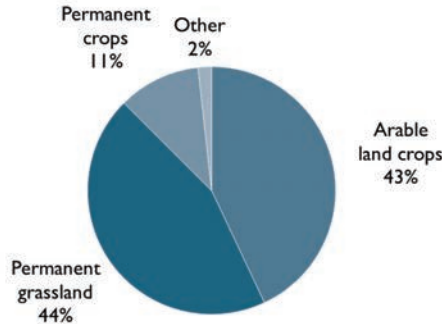


Figure 76: Europe: Distribution of land use in organic agriculture 2017

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources

¹ The main land use types are:

- › Arable land crops (mainly cereals, fresh vegetables, green fodder and dry pulses and oilseeds),
- › Permanent grassland (pastures and meadows), and
- › Permanent crops (fruit trees and berries, olive groves and vineyards).

² In 2004, FiBL started its data collection on organic crop and landuse data.

Table 55 and Figure 76 show that arable land constitutes a large part of the organic farmland, with 6.8 million hectares in Europe and 5.5 million hectares in the European Union (47 and 43 percent of the organic farmland, respectively). The arable land share is higher in Europe as the Russian Federation and Ukraine have large areas for the production of cereals, oilseed, and dry pulses. Permanent grassland accounted for 5.9 million hectares in Europe and 5.7 million hectares in the European Union. Permanent crops constituted 11 percent of the organic farmland with 1.6 and 1.4 million hectares in Europe and the European Union, respectively. Compared to total agriculture (based on FAO land use data and not strictly comparable), the organic arable land constitutes 5.7 percent of the total arable land in Europe and 4.6 percent in the European Union. Whereas the organic share of total permanent grazing area is as high as 8.9 percent in the European Union, it is lower in Europe (3.1 percent). Permanent crops have the highest organic shares: 11.7 percent in the European Union and 8.7 percent in Europe.

The largest increase in 2016-2017 was in arable crops (9.9 percent in Europe), mainly because additional organic arable area was reported for Russia. In the European Union, arable land increased less, by 5.4 percent. Grassland and permanent crops increased by approximately 5 percent (Table 55, Figure 78, Figure 79). Both arable and permanent crops almost doubled in the decade 2008-2017 and thus showed a greater increase than the permanent grassland, which grew by about 50 percent (Table 55, Figure 78, Figure 79). It also shows the intensification of organic agriculture as the importance of extensive grassland is decreasing. By country, the largest permanent grassland or grazing area is in Spain with more than one million hectares, followed by Germany and France (Figure 77). The largest cropland area (i.e., arable and permanent crops together) is in Italy (1.3 million hectares), Spain and France (1.0 million hectares). (Figure 77).

Europe: Land use in organic agriculture 2017

Source: FiBL-AMI survey 2019

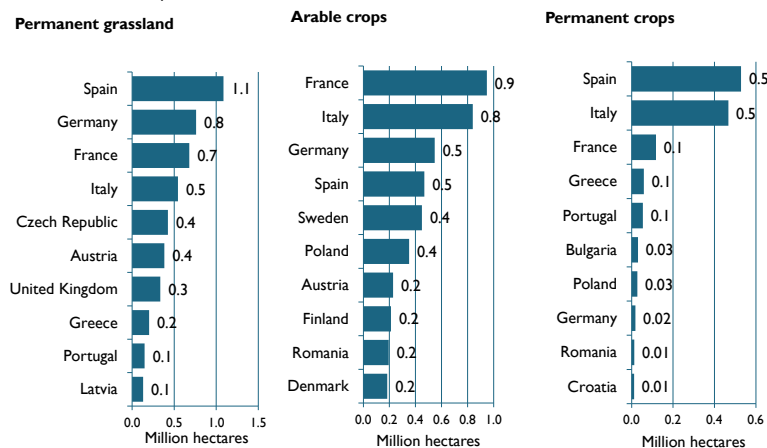


Figure 77: Europe: Land use in organic agriculture by top 10 countries 2017

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources

Europe: Growth of area by land use type 2004-2017

Source: FiBL-AMI surveys 2006-2019

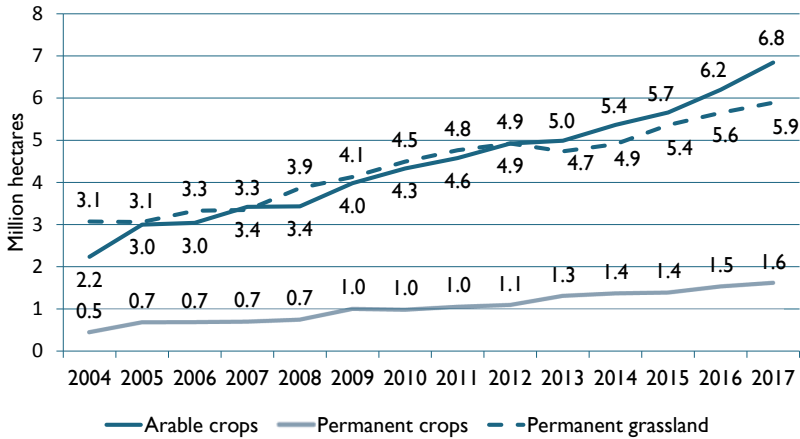


Figure 78: Europe: Growth in organic agricultural land by land use type 2004-2017

Source: FiBL-AMI Surveys 2006-2019 based on national data sources and Eurostat

European Union: Growth area by land use type 2004-2017

Source: FiBL-AMI surveys 2006-2019

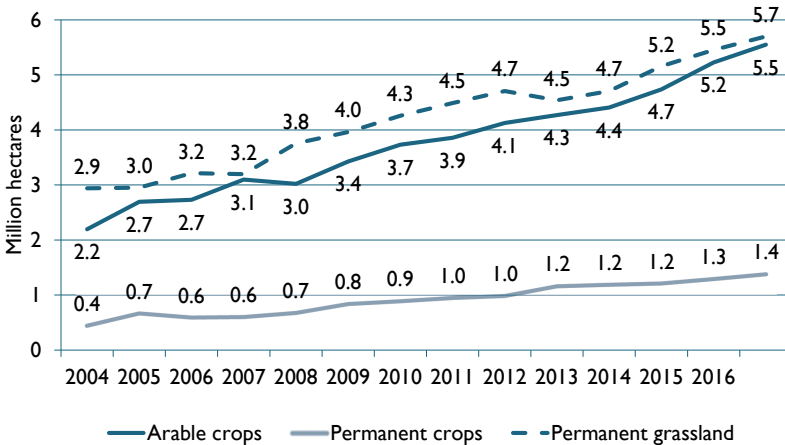


Figure 79: European Union: Growth in organic agricultural land by land use type 2004-2017

Source: FiBL-AMI Surveys 2006-2019 based on national data sources and Eurostat

3.2 Crops grown in organic agriculture

Except for temperate fruits, which showed a small decline in the European Union, all key arable and permanent crop groups showed growth in Europe and the European Union (Table 56).

Table 56: Europe and the European Union: Key crops/crop group 2017

Crop group		Area (ha)		Organic share (%)		Change 2016-2017		Change 2008-2017	
		Europe	EU	Europe	EU	Europe	EU	Europe	EU
Arable crops	Cereals	2'529'808	1'994'581	1.9%	3.5%	8%	6%	69%	50%
	Dry pulses	442'863	386'310	8.7%	18.1%	2%	1%	207%	223%
	Oilseeds	449'439	269'694	1.3%	2.3%	6%	19%	251%	231%
	Green fodder	2'376'880	2'198'433	N/A	N/A	5%	6%	99%	92%
	Root crops	52'032	38'528	0.6%	1.2%	24%	15%	41%	33%
	Vegetables	172'792	158'928	3.4%	6.8%	17%	17%	104%	69%
Permanent crops	Berries	40'490	36'726	14.2%	22.3%	12%	10%	87%	70%
	Citrus fruit	55'081	54'322	7.5%	9.1%	12%	12%	126%	130%
	Temperate fruit	134'038	101'476	4.8%	7.8%	8%	-1%	79%	63%
	(Sub)Tropical fruit	38'146	14'016	16.8%	8.9%	25%	17%	N/A	N/A
	Grapes	340'038	323'014	8.7%	10.3%	4%	3%	166%	177%
	Nuts	313'766	264'529	18.5%	27.2%	17%	13%	111%	104%
	Olives	592'647	510'859	10%	10.2%	3%	4%	92%	72%

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat. Totals for arable and permanent crops include further crop groups

Note: For crop details by country, please check crop chapter in this book from page 94 and statistics.fibl.org

Arable crops

A large proportion of the organic arable land (6 million hectares in Europe and 5.5 million in the European Union) is used for the production of cereals and green fodder from arable land, which, together, account for about two-thirds of the organic arable land. Regarding the organic share, dry pulses are the most successful crop; in the European Union, they account for almost one-fifth of the total dry pulses area. In organic farming they are important for crop rotation and animal feeding, and have disappeared in conventional farming as protein crops for animal feeding are imported, and crop rotation is replaced by fertiliser. Of the major groups, vegetables and oilseed showed the highest increase in land area, reflecting that European organic farmers are meeting the increasing market demand for vegetables and feedstuffs. Over the decade 2008-2017, the largest growth was noted for oilseed and dry pulses, which more than trebled. For more information about crop groups by country, see the crop chapters in this book (page 94) and our online database at statistics.fibl.org.

- **Cereals** were the largest crop group in Europe and accounted for 2.5 million hectares or 1.7 percent of the arable land in Europe, and in the European Union, they were the second largest group, accounting for 1.9 million hectares or 3.5 percent of the total cereal area. Wheat is the most important cereal (almost 1 million hectares). The countries with the largest cereal areas are Italy (approx. 300'000 hectares, including large areas of durum wheat), Germany (approx. 270'000 hectares), and France (approx. 240'000 hectares). The highest organic shares of the total cereals area are in Austria (14.6 percent), Sweden (11.4 percent) and Estonia (11.1 percent). Outside the European Union, Turkey, the Russian Federation, and Ukraine are major cereal producers.
- In the European Union, the arable crop group with the largest area was **plants harvested green** (green fodder from arable land) with 2.2 million hectares (Europe: 2.4 million hectares). Clover, green maize, and grass on arable land were the main crop types.
- In 2017, organic **vegetables**¹ were grown on more than 170'000 hectares of land in Europe, and almost 160'000 hectares in the European Union, covering 2.9 percent and 5.8 percent of the vegetable area respectively. While vegetables had the largest growth of the major crops groups in 2017, compared to the other crop groups, they did not grow as fast in the decade 2008-2017. This is because vegetables are one of the pioneer crops of organic agriculture, and strong growth already occurred in the previous decades. The largest areas were in Italy (54'720 hectares), France (20'866 hectares), and Spain (20'331 hectares). High organic shares of all vegetables are found in Denmark (33.3 percent) and Austria (24 percent).
- With 440'000 hectares in Europe and 390'000 hectares in the European Union, organic **dry pulses** accounted for a large share of all dry pulses (8.7 percent in Europe; 18.1 percent in the European Union). One reason is that the conventional crop area has been decreasing for many years due to the availability of cheap protein like soybeans on the world market for both animal feed and human consumption. The strong growth of dry pulses and their high organic shares also reflects the efforts of European organic farmers to improve soil fertility and to become less dependent on imports of protein crops. The countries with the largest areas of dry pulses were France (97'405 hectares), Italy (49'730 hectares), and Poland (43'373 hectares). The highest organic shares were found in Greece (64 percent), Austria (57 percent), and Denmark (51 percent).

Permanent crops

A large part of the permanent cropland (1.6 million hectares in Europe and 1.4 million hectares in the European Union) is used for olives, grapes, and nuts. Olives cover one-third of the permanent crop area, and grapes one fifth. Over the decade 2008-2017, the largest growth was noted for grapes, which more than tripled. In Europe, olives (0.59

¹ It should be noted that for some countries, potatoes are included in the vegetable category.

million hectares) and grapes (0.34 million hectares) cover half of the permanent cropland (Table 56). Both reach an organic share of almost ten percent of their respective totals.

The organic shares for most permanent crops were higher than those for the arable crops. However, it should be noted that the FAO data, with which the organic data are compared, do not include all berries or nut types grown in organic agriculture. Thus, a direct comparison is not possible in all cases. For more information about crop groups by country, see crop chapters in this book (page 94) and our online database at statistics.fibl.org.

- Spain and Italy had an organic **grape** area of more than 100'000 hectares each, and, together with Austria (12.2 percent), they had the highest organic shares of grapes (except some minor organic grape producers that reach even higher shares, such as the UK or Belgium). In Italy, 15.8 percent of the grape area is organic and 11.6 percent in Spain.
- For **olives**, Italy and Spain also have the lead (235'741 hectares and 195'114 hectares, respectively). Malta (32.5 percent) and France (27.3 percent) have the highest organic shares. The largest growth occurred in Italy, where the organic olive area increased by more than 13'000 hectares in 2017.
- Temperate fruits are grown on 134'038 hectares (European Union 101'474 hectares), and they cover 4.8 percent of the total temperate fruit area (7.8 percent in the European Union). Several countries in the European Union have a considerable amount of land dedicated to temperate fruit (e.g., apples in Poland and berries in the Baltic countries, both for processing rather than for the fresh market). The most important fruits were apples (55'893 hectares), plums (15'008 hectares), and cherries (15'385 hectares). The largest temperate fruit producers are Turkey (26'073 hectares), where a major increase was noted, Italy (24'825 hectares) and France (16'707 hectares); the highest organic area shares are found in Latvia (43 percent).

3.3 Further organic areas

In addition to the agricultural land, there are further organic areas. Large parts of these are wild collection areas constituting 17.0 million hectares (European Union: 14.7 million hectares). The largest wild collection area in Europe (and in the world) is in Finland with 11.6 million hectares (mainly berries). For country details on wild collection areas, see Table 64.

4 Organic livestock

Statistics on the number of organic animals are incomplete and do not currently allow for a complete picture of the sector. However, taking into account all currently available information, the organic animal sector is developing at a fast pace in European countries. Table 57 provides a European overview of organic livestock in 2017. In many countries, organic animal husbandry began with beef, lamb, and milk production. In Europe, 4.4 million bovine animals, 5.2 million sheep, almost 1 million pigs, and 50 million poultry were kept (For European Union data, see Table 57).

Table 57: Europe and the European Union: Organic livestock 2017

	Europe				European Union	
	Animals [head]	Organic share of total [%]	Change 2016-2017 [%]	Change 2008-2017 [%]	Animals [head]	Organic share of total [%]
Bovine animals	4'398'530	3.5%	13.9%	75.8%	4'159'911	5.2%
Sheep	5'187'715	3.4%	13.1%	73.6%	4'941'613	5.0%
Pigs*	998'828	0.6%	0.5%	47.6%	961'212	0.7%
Poultry**	50'145'275	2.0%	9.7%	103..%	47'384'977	3.3%

Source: FiBL-AMI Survey 2019 based on Eurostat and national data sources.

Notes: Data for the calculation of organic shares are based on Eurostat and FAOSTAT. The numbers for the organic shares of all livestock are based on FAOSTAT data. FAOSTAT only provides totals for bovine animals, sheep, pigs, and poultry, without further specifications. Please note that growth rates from 2008-2017 were similar for Europe and the European Union and are hence not included in the table.

* Please note there is no consistent reporting in the official statistics, no clear distinction is made between the number of animals slaughtered, the places or average numbers of stock. Therefore, the data should be treated with caution.¹

According to the Agricultural Market Information Company AMI, the average stock of fattening pigs was 454'247 in Europe, and 494'700 in the European Union.

**Also for poultry, there is no consistent reporting. According to the Agricultural Market Information Company AMI, the average stock was 41'569'199 in Europe, and 40.561.932 in the European Union.

The organic share of all livestock remains small compared to some of the crop groups, depending on the animal species (between 0.6 percent and 5.2 percent (Table 57). Monogastric animals (pigs and poultry) account for the lowest shares, partly because of insufficient local supply of organic feed, the difficulties in the provision of traceable certified feed imports, the high investment in pig and poultry barns and pens, and the high price premiums consumers have to pay. The highest organic shares were for sheep and cattle as conversion of these rather extensive production schemes is easier. At the same time, not all of this organic production is sold on the organic market at a premium price.

¹ In the case of pigs and poultry, in the official statistics, no clear distinction is made between the number of animals slaughtered and the places or average numbers of stock over the year, and it is not always clear which of these is given when "livestock numbers" are quoted. Adding up the data for pigs and poultry over all countries, therefore, is not completely reliable and country data are not necessarily comparable. The data that are presented here should, therefore, be treated with caution and are only an approximation of the overall picture.

Between 2008 and 2017, the greatest increase was in poultry (more than 100 percent), which can be partly attributed to the high demand for eggs (see the section on the organic market in Europe; Table 60). However, beef and dairy cattle also grew substantially in that decade (+65 percent), as did sheep (+74 percent) and pigs (+48 percent) (Table 57).

For bovine animals (4.4 million head in Europe), the largest numbers are found in Germany, France, and Austria (Table 65). The highest organic shares are in Latvia, Liechtenstein, Sweden, and Austria (all more than 20 percent). For sheep (5.2 million head in total), the largest numbers are in Greece, the United Kingdom, and Italy. The highest organic shares are in the three Baltic countries¹ and the Czech Republic (all with more than 40 percent). Looking at the available data for pig stocks (1 million head), Germany, Denmark and France have the highest numbers. For poultry (50 million head), we assume that – like for pigs – country-level data is not comparable, due to different definitions (Table 65).

Organic cow's milk

Organic cow's milk production is one of the production-related indicators with good coverage across all European countries. Organic cow's milk has almost doubled since 2008 to meet rising demand for milk and dairy products. Production now stands at 4.7 million metric tons (European Union: 4.4 million), constituting 3.0 percent of the European Union's milk production from dairy cows in 2017 (Figure 80).

Europe and European Union: Development of organic cow's milk production, 2007-2017

Source: FiBL-AMI surveys 2009-2019

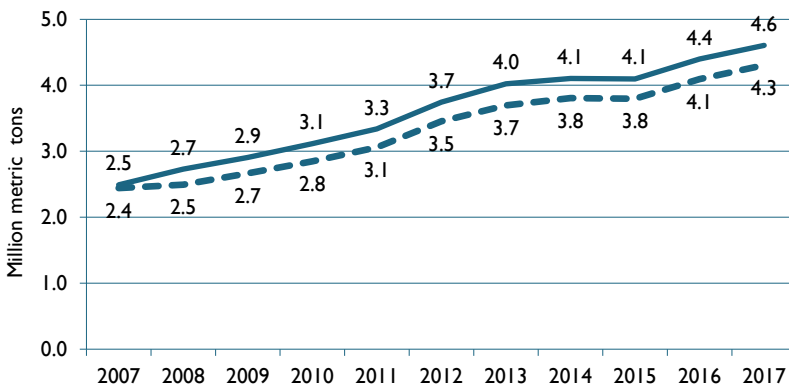


Figure 80: Europe and the European Union: Development of organic cow's milk production 2007-2017

Source: FiBL-AMI survey 2009-2019

¹ Estonia, Latvia and Lithuania

5 Producers, processors, importers, and exporters

While data on organic producers are available for almost all countries, this is not the case for processors and importers and even less for exporters. Although data availability is improving, it is still not possible to draw a clear picture for the latter groups over the years. Hence, in the table below, a ten-year development is not shown for the number of exporters.

Table 58: Europe: Organic operators by country group 2017

	Europe			European Union		
	No.	Growth 1 year	Growth 10 years	No.	Growth 1 year	Growth 10 years
Producers	397'509	6.5%	78.7%	305'394	3.5%	54.8%
Processors	71'375	8.3%	108.2%	68'164	8.8%	106.3%
Importers	5'314	14.1%	74.5%	4'585	15.5%	75.8%
Exporters	2'916	30.4%		2'666	30.0%	

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat. For a breakdown by country, see **Table 66**. For detailed data sources see annex.

5.1 Organic producers

In 2017, there were almost 400'000 organic producers in Europe and slightly more than 300'000 in the European Union (Table 58 and Table 66). In the European Union, the country with the largest number of producers was Italy (almost 67'000); in Europe, it was Turkey (more than 75'000) (Figure 83). Compared to the European Union (+3.5 percent), growth was stronger in Europe as a whole (+6.5 percent), mainly due to a major increase in Turkey and decreases in EU countries such as Poland and Romania. Over the decade 2008-2017, the number of producers in Europe increased by 79 percent (EU: +55 percent). Almost one-sixth of the world's organic farmers are in Europe (Figure 81).

5.2 Organic processors and importers

There were more than 71'000 organic processors in Europe (+8.3 percent compared to 2016) and more than 68'000 in the European Union (+8.8 percent). The country with the largest number of processors was Italy (18'092). Double-digit growth was noted for importers; more than 5'300 importers (+ 14.1 percent) were counted in Europe and almost 4'600 in the European Union (+15.5 percent). Germany was the country, which had the most importers (1'687) (Table 58, Table 66, Figure 82).

Europe and European Union: Development of organic producers 2000-2017

Source: FiBL-AMI surveys 2006-2019 based on national data sources and Eurostat

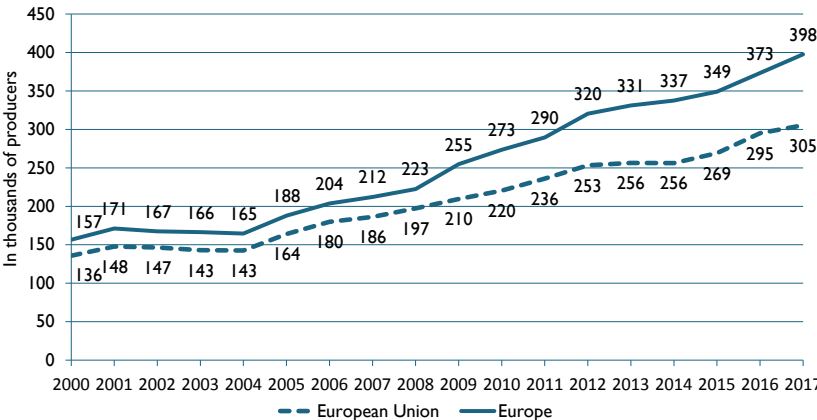
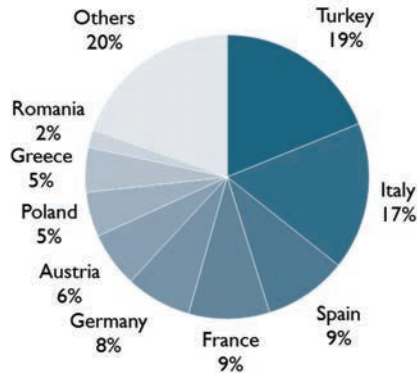


Figure 81: Europe and the European Union: Development of the number of organic producers in 2000-2017

Source: FiBL-AMI surveys 2006-2019 based on national data sources and Eurostat

Europe: Distribution of organic producers 2017

Source: FiBL-AMI survey 2019



Europe: Distribution of organic processors 2017

Source: FiBL-AMI survey 2019

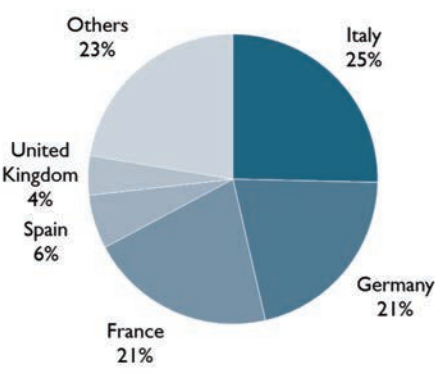


Figure 82: Europe: Distribution of organic producers and processors by country 2017

Source: FiBL-AMI survey 2019, based on national data sources and Eurostat.

Europe: Organic producers by country 2017

Source: FiBL-AMI survey 2019

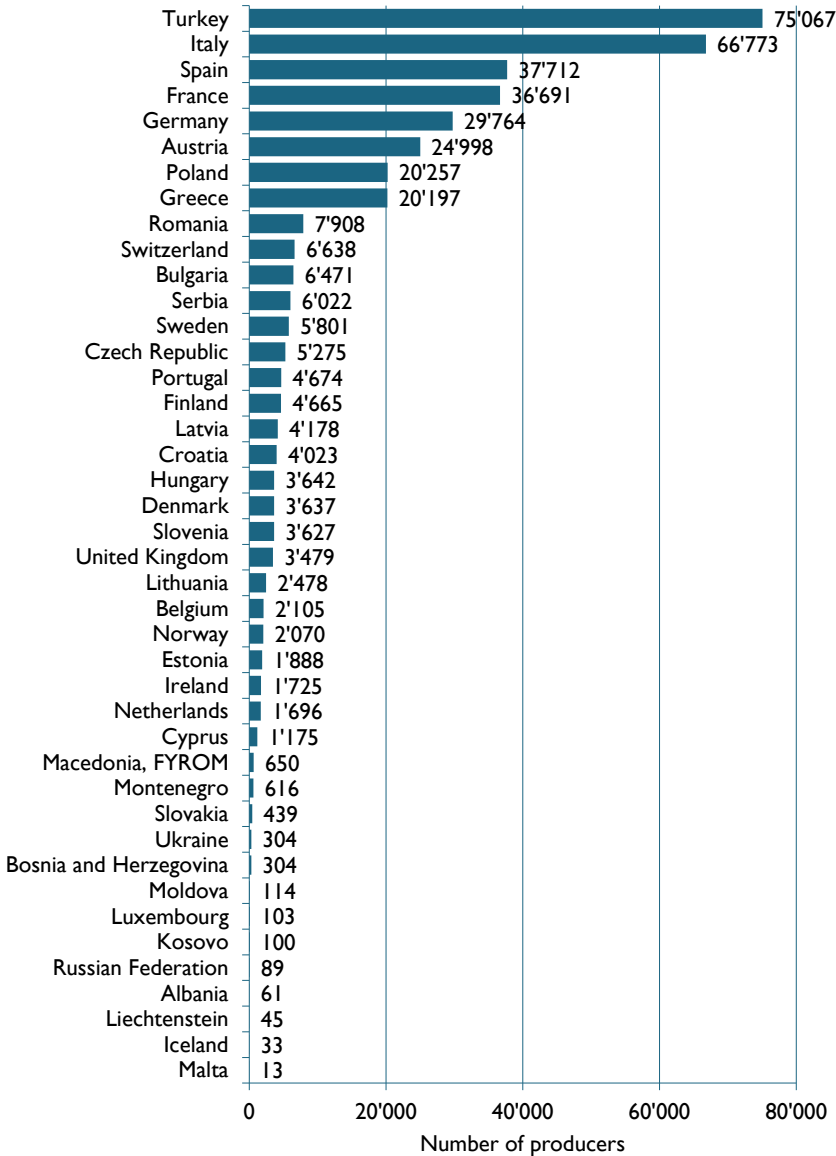


Figure 83: Europe: Number of organic producers by country 2017

Source: FiBL-AMI survey 2019 based on national data sources and Eurostat. For detailed data sources see annex.

6 Organic retail sales

In 2017, the organic market in Europe grew to 37.3 billion euros (European Union: 34.3 billion euros). Unfortunately, not all countries provide data on their domestic markets on a regular basis (Table 67), and it may, therefore, be assumed that the market is larger than indicated by the figures in Table 59 and Table 13.

Table 59: Europe and the European Union: Organic retail sales 2017: Key data

	Retail sales [Million €]	Per capita consumption [€]	Growth 2016-2017 [%]	Growth 2008-2017 [%]
European Union	34'285	67.2	10.9%	89.5%
Europe	37'341	47.0	10.5%	94.2%

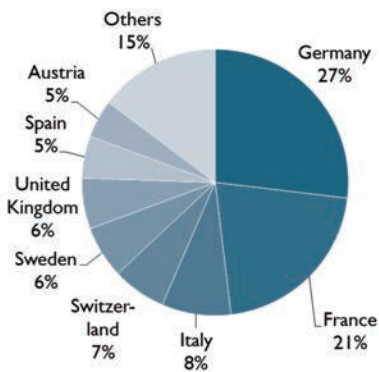
Source: FiBL-AMI survey 2019 based on national data sources. For country details, see Table 67.

6.1 Size of the organic market

Germany continues to be the largest market in Europe (10 billion euros) (Figure 85), and, after the United States, it is the second biggest organic market in the world. France holds second place in Europe with 7.9 billion euros. Comparing organic markets worldwide by single market, the United States has the lead: 44 percent of global retail sales of organic products are in the United States (40.0 billion euros), followed by the European Union (34.3 billion euros; 37 percent of organic global retail sales, Figure 84). Comparing retail sales by continent, North America is the largest market (43 billion euros) (Figure 12).

Europe: Distribution of retail sales by country 2017

Source: FiBL-AMI survey 2019



World: distribution of retail sales by single market 2017

Source: FiBL-AMI survey 2019

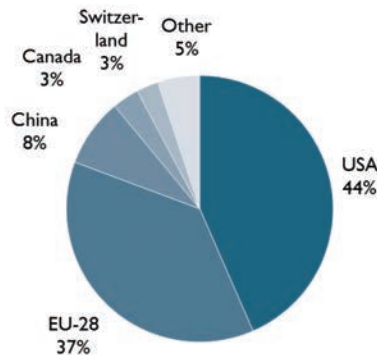


Figure 84: Europe: Distribution of retail sales by country and by single market worldwide 2017

Source: FiBL-AMI survey 2019 based on national data sources

Europe: Organic retail sales value by country 2017

Source: FiBL-AMI survey 2019

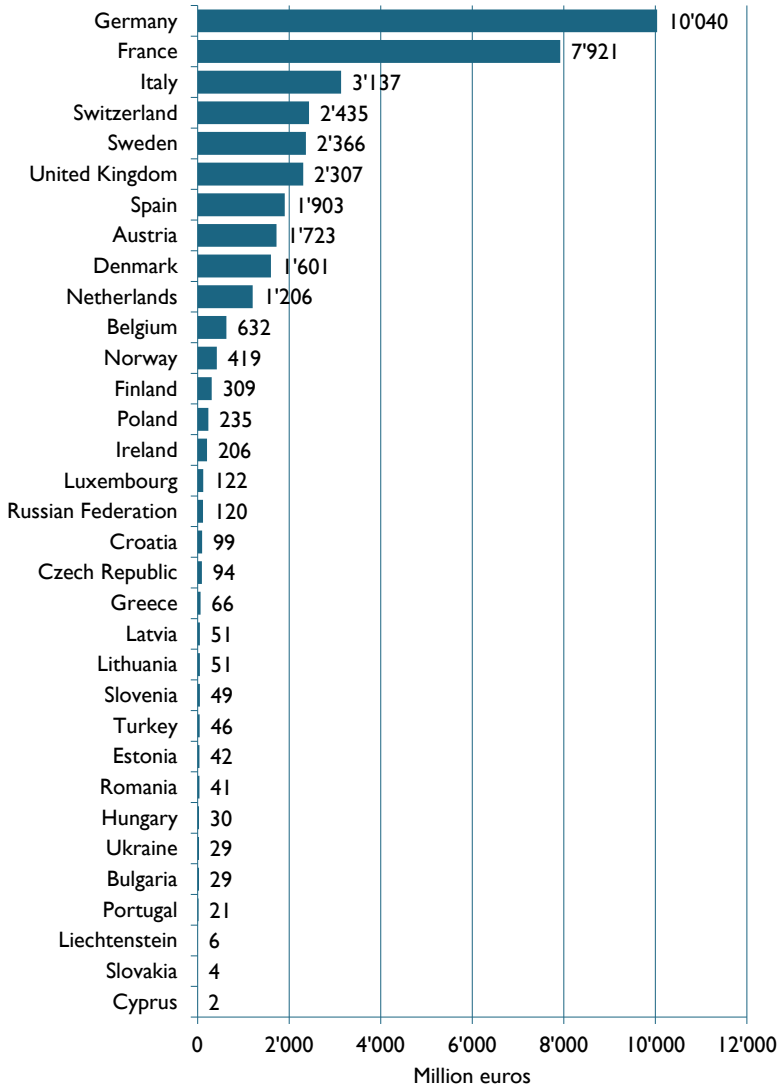


Figure 85: Europe: Retail sales by country 2017

Source: FiBL-AMI survey 2019 based on national data sources (only countries with a turnover of more than one million euros). Please note, that 2017 data were not available for all countries. For detailed data sources see annex.

6.2 Growth of the organic market

The organic market grew by more than 10 percent in both Europe and the European Union in 2017. It is the third time since the financial crisis in 2008 that double-digit growth occurred in Europe. In the decade 2008 to 2017, the organic market almost doubled in size (Figure 86).

All countries for which new data was available showed growth, many double-digit (Figure 87). With 18 percent, France showed the highest increase followed by Spain (16 percent) (Figure 87, Table 67).

In the United Kingdom, where retail sales had been decreasing for several years, growth was noted for the sixth consecutive year (6 percent increase in 2017). It should be noted that UK sales in euros show a drop for the years 2015-2017, due to the exchange rate loss of the British pound after the Brexit vote.

In 2018, the market in many European countries experienced further double-digit growth. Figures are expected to be available at the beginning of 2019.

Europe and European Union: Development of retail sales 2000-2017

Source: FiBL-AMI Surveys 2006-2019, OrganicDataNetwork Surveys 2013-2015

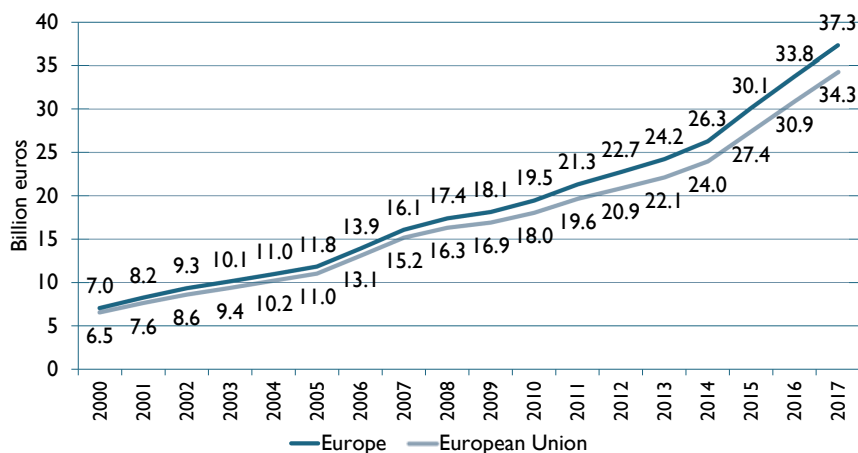


Figure 86: Europe: Growth of organic retail sales in Europe and the European Union, 2000-2017

Source: FiBL-AMI surveys 2004-2019, and OrganicDataNetwork Surveys 2013-2015

Europe: The countries with the highest growth of the organic market 2016-2017

Source: FiBL-AMI survey 2019

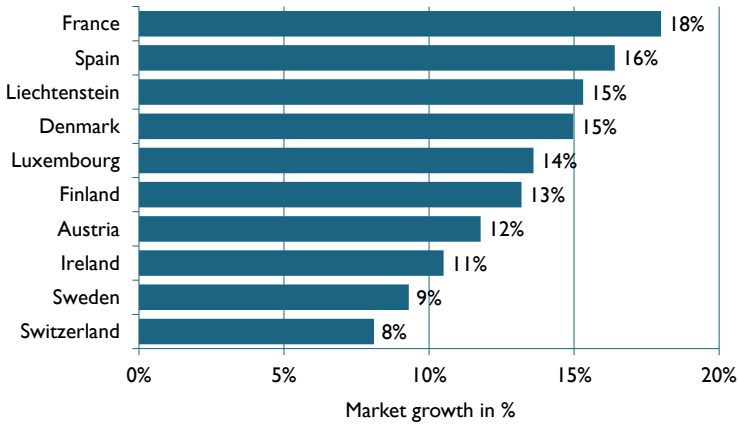


Figure 87: Europe: The countries with the highest organic market growth 2017

Source: FiBL-AMI surveys 2019. For detailed data sources see annex.

6.3 Per capita consumption of organic food

Like in the previous years, the highest per capita consumption of organic food was in Switzerland (288 euros), followed by Denmark (278 euros). Eight countries had a per capita consumption of more than 100 euros in 2017 (Figure 88, Table 67).

The continual growth in consumer interest is well documented by the growth of per capita consumption, with specific notable growth in 2017 (Figure 89). The per capita consumption in Europe rose to 47 euros and to 67 euros in the European Union.

In the Central Eastern European countries, consumer spending is still low (Table 67). There are indications that markets are currently developing fast, especially in the Baltic countries,¹ however, retail sales data are scarce for some countries and not regularly updated. Whereas the availability and accessibility of area and operator data is good, the Czech Republic is the only country with a permanent collection system for retail sales data.

¹ Estonia, Latvia and Lithuania.

Europe: The countries with the highest per capita consumption of organic food 2017

Source: FiBL-AMI survey 2019

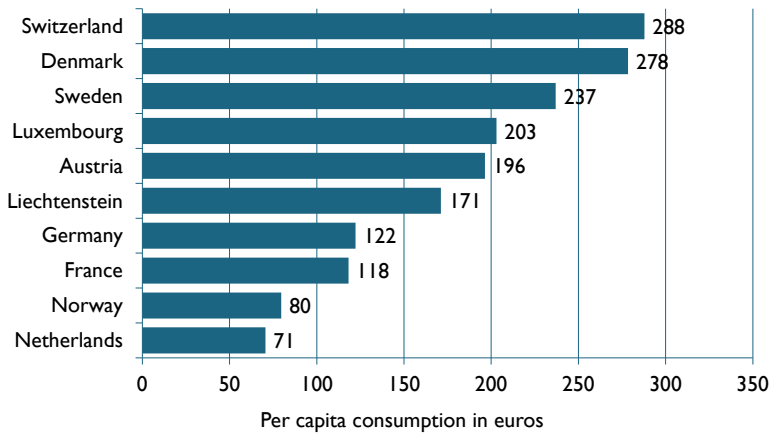


Figure 88: Europe: The countries with the highest per capita consumption 2017

Source: FiBL-AMI survey 2019 based on national data sources. For detailed data sources see annex.

Europe and European Union: Growth of the per capita consumption 2000-2017

Source: FiBL-AMI surveys 2006-2019, OrganicDataNetwork Surveys 2013-2015

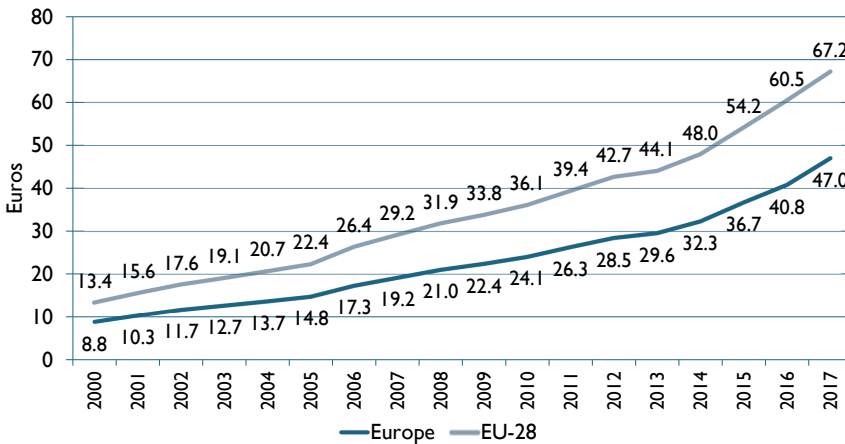


Figure 89: Europe: Growth of the per capita consumption 2000-2017

Source: FiBL-AMI survey 2019 based on national data sources. Calculation based on Eurostat population data. For detailed data sources see annex.

6.4 Organic market shares

The organic share of overall retail sales shows the importance that the organic market has in a given country. As in the past, the highest market shares were reached in Denmark (13.3 percent, highest organic market share in the world), Sweden (9.1 percent), and Switzerland (9.0 percent) (Figure 90, Table 67). The fact that, in many countries, the total food market is not growing and that, in many cases, food prices are decreasing makes organic shares grow even faster. Market shares of individual products and product groups can be far higher; these data are provided in Table 60. As there are no retail sales data for Europe or the European Union as a whole, it is not possible to calculate overall organic market shares.

Europe: The countries with the highest organic shares of the total market 2016 and 2017

Source: FiBL-AMI survey 2019

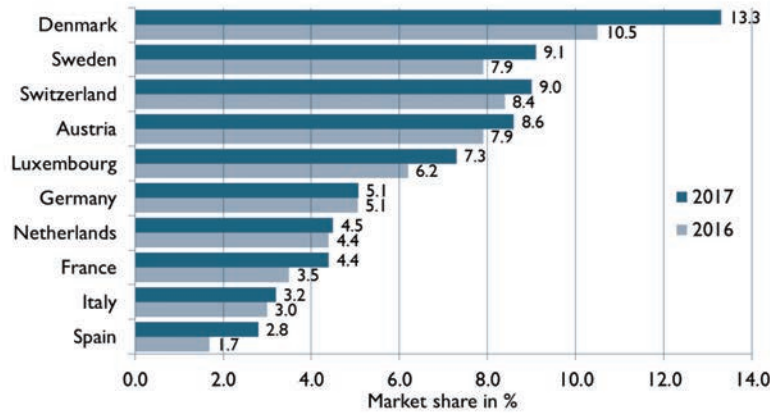


Figure 90: Europe: The countries with the highest shares of the total retail sales 2017

Source: FiBL-AMI survey 2019 based on national data sources. For detailed data sources see annex.

Notes: For Denmark, the 2016 figure was revised and is higher than what was communicated previously. Sweden: The 2016 figure is from Statistics Sweden, the 2017 figure is from Ecoweb, and hence a direct comparison is not possible. Luxembourg: Organic market data shares were revised and differ from what was communicated earlier.

6.5 Comparison of organic products and product groups with the total market

While the organic share of the total market is an important indicator, it is also important to look at the organic market shares that individual products can have.

In many countries, organic eggs are one of the success stories within the total retail market, and they reach impressive proportions of the total egg market. Table 60 shows that, in Denmark and France, eggs reach organic market shares of approximately 30 percent (in value).

Table 60: Organic shares for retail sales values (euros) for selected products 2017

	Austria	Belgium	Czech Republic (2016)	Denmark	Finland	France	Germany	Netherlands	Nor-way	Spain	Sweden	Switzerland	UK
Baby food					15.0%	12.7%			33.1%				
Beverages			0.4%			5%			0.6%		5.6%	3.3%	
Bread & bakery products		2.4%	0.4%		1.0%	3.4%	8%	1.4%	1.9%		3.5%	4.9%	0.3%
Eggs	21.6%	14.5%		32.6%	17.0%	29.6%	21%	15.3%	8.7%	2.9%		26.6%	6.9%
Fish and fish products		0.4%				2.5%		1.2%	0.8%	0.6%	12.9%		0.8%
Fresh vegetables	15.3%			20.4%	3.9%	6.3%	9.7%		4.5%	3.3%	12.2%	23.1%	4.3%
Fruit	10.9%			18.8%		7.7%	7.8%		2.3%	1.7%	18.4%	13.9%	2.7%
Vegetables and fruit			1.3 %		3.9%	6.9%		4.0%				16.9%	
Meat and meat products	4.5%		0.2%		1.1%	2.4%	2.5%	3.3%	0.5%	1.2%	2.9%	5.6%	1.4%
Milk and dairy products	11.1%		1.4%			4.4%		4.3%	2.0%	1.1%	10.4%	12.9%	3.8%
- Butter	10.6%	4.7%		16.4%		5.6%	4.5%		3.1%				2.1%
- Cheese	9.6%			5%	3%	1.6%	4.7%		0.7%			6.7%	1.1%
- Milk	18.5%	3.3%		31.6%	4%	12.7%	12.1%		4.0%			16.7%	5.9%
- Yoghurt	13.9%	8.5%		18.6%	2%	6.9%	8.1%		0.7%				8.2%

Sources: FiBL-AMI survey 2019, based on data from Austria: RollAMA based on GfK, Belgium: LV based on GfK; Czech Republic: UZEI; Denmark: GfK ConsumerScan, provided by LF, Finland: Pro Luomu; France: Agence Bio (only supermarkets/general retailers). For baby food: Data from 2017, supermarket sales only; Germany: Agricultural Market Information Company AMI based on GfK; Netherlands: Bionext; Norway: Nielsen Norway; Sweden: Statistics Sweden (excludes alcoholic beverages); Switzerland: Bio Suisse based on Nielsen; UK: Soil Association. Note: Due to classifications and nomenclatures differing from country to country, it is not possible to supply data for all product groups, even if data for individual products may be available. Not all countries have data on the market shares of organic products. Please note that the products shown in the table above are a selection.

Organic fruit and vegetables continue to be highly popular purchases among European organic consumers. Organic vegetables have the highest market shares after eggs, representing 10 percent or more of the sales value of all vegetables sold in countries such as Switzerland, Austria, Denmark, and Sweden. For example, fresh carrots or fresh pumpkins alone have a nearly 30 percent market share in Germany.

In Sweden and Switzerland, organic dairy products are reaching organic market shares of 10 percent or higher. In Denmark, organic milk has an organic market share of 30 percent.

Individual products can reach even higher market shares. Organic oatmeal (over 52 percent in Denmark) or organic savoury bread spreads (59 percent in Germany) are good examples.

On the other hand, products like organic beverages (except wine) and meat (especially poultry), have low market shares in many countries. Often, these products are highly processed and very cheap on the conventional market. Another factor is that many organic consumers tend to eat little or no meat.

6.6 Marketing channels in organic agriculture

Some countries are in a position to break down their retail sales data by marketing channel. Some are even able to provide a breakdown by product and marketing channel. Some countries have data for catering sales, and some countries provide data for direct marketing and box schemes. Wherever possible, the figure for catering sales was deducted from the figure for the total organic market (Table 67).

Figure 91 shows that the importance of the various retail marketing channels (excluding food service/catering) differs from country to country. In the past, countries with strong involvement by general retailers showed steady organic market growth (e.g., Austria, Denmark, Sweden, Switzerland, and the United Kingdom). France and Italy are good examples of countries with strong market growth, where specialized retailers play a very important role, even though their importance is decreasing as shown in Figure 92.

In Germany, the market has entered into a transition period. Supermarkets have become the driving force in the market, whereas specialised retailers are facing more and more competition. While in 2014, 33 percent of all organic products were sold in organic food shops, this number decreased to 29 percent in 2017. In 2017, 60 percent of the organic food was sold by general retailers.

Retail sales by channel in selected European countries 2017, based on retail sales value (million euros)

Source: FiBL-AMI survey 2019

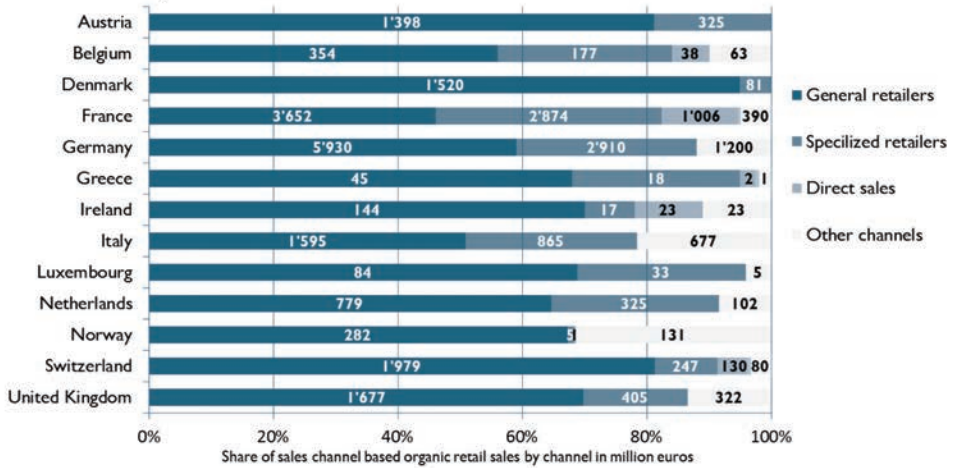


Figure 91: Europe: Marketing channels for organic products in selected countries 2017

Source: FiBL-AMI survey 2019 based on national data sources

For detailed data sources see annex.

Europe: Development of organic retail sales by channel for selected countries 2015-2017

Source: Austria: AMA Marketing, Denmark: Organic Denmark/LV, France: Agence Bio, Germany: Arbeitskreis Biomarkt, Italy: AssoBio/Nomisma, Switzerland: Bio Suisse

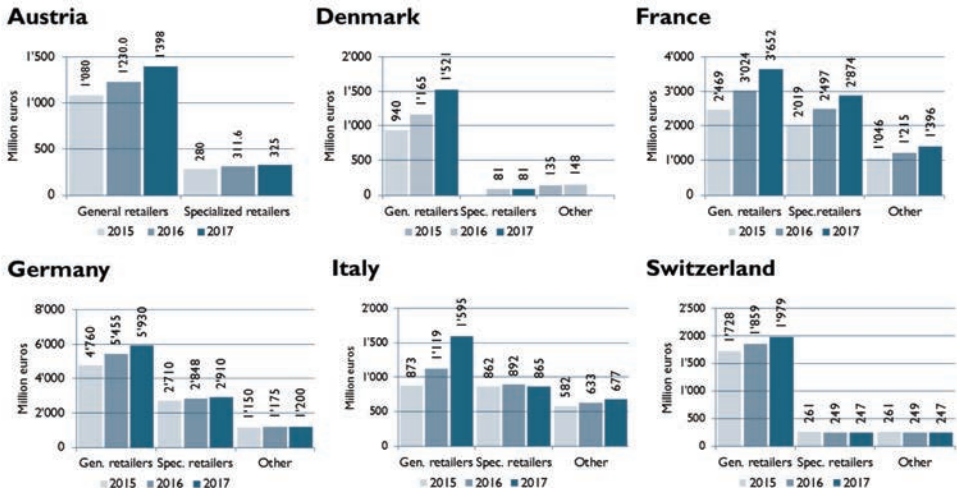


Figure 92: Europe: Growth of marketing channels for organic products 2015-2017 in selected countries

Source: Austria: AMA Marketing, Denmark: Organic Denmark/LV, France: Agence Bio, Germany: Arbeitskreis Biomarkt, Italy: AssoBio/Nomisma, Switzerland: Bio Suisse.

7 Conclusion

Currently, available data on organic farming in the global and European market show that, in an international context, the European organic sector is well developed. Relatively high shares of agricultural land, continual growth in the area and number of operators, as well as a fast-growing market, show the exceptional dynamics that the European organic market and sector has.

For many countries, the organic market is growing faster than production, and domestic supply cannot meet demand. Therefore, many organic organisations or market actors are calling for more farmers to convert to organic.

The data analysis shows that there are still large discrepancies among European countries. Even though organic agricultural land in some countries in Central and Eastern Europe account for large shares of the overall agricultural land, consumer spending, although growing, remains low as a proportion of total spending on food in these countries.

Another issue that needs to be addressed is data availability and quality. For instance, imports and exports play a very important role, but almost no relevant data exists. Denmark is the only European country that consistently supplies international trade data with a breakdown by country of origin/destination and product. In order to increase the transparency of the organic market, the availability of export and import values could play an important role. Currently, it is not possible to compare production data versus international trade data, which could give important hints on potential fraud cases.

Furthermore, while the availability of domestic market data is improving, it is collected with a wide range of methods and, strictly speaking, is not accurately comparable. Diverging methods and availability remain as challenges. For many countries, particularly in Central and Eastern Europe, retail sales data are not collected on a continual basis, and thus, little is known about the importance of organic product sales. Therefore, we recommend that data availability and accessibility are increased, that classifications, nomenclature, and definitions, in particular for organic market data, are harmonized, and that data quality is improved (Willer and Schaack 2014).

8 Acknowledgments

The data compiled for this article builds on the collection activities of the OrganicDataNetwork project, which was funded by the European Union (EU) under its seventh framework programme for research, demonstration, and technological development, which ended in 2014.¹ Under this project, for the first time, detailed

¹ The project “Data network for better European organic market information” (OrganicDataNetwork) has received funding from the European Union’s Seventh Framework Programme for Research, Technological Development and Demonstration under grant agreement no 289376.

organic market data for all European countries was collected¹. The authors would like to thank all of those who have provided data and information for this report, in particular, the partners of the OrganicDataNetwork project.

9 References and further reading

Eurostat (2018): Data tables organic agriculture. The Eurostat website eurostat.ec.europa.eu Eurostat, Luxembourg.

Available at <http://ec.europa.eu/eurostat/data/database>

Eurostat (2016): Organic crop area on the rise in the EU. Eurostat News release of October 25, 2016. Available at <http://ec.europa.eu/eurostat/documents/2995521/7709498/5-25102016-BP-EN.pdf>

Meredith, S. and Willer, H. (Eds.) (2016): Organic in Europe 2016. IFOAM EU, Brussels and

Willer, H. and Schaack, D. (2014) Final report on compilation of key organic market data. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland.

Note on data collection

Data collection in Europe, like in the rest of the world, is carried out using multiple information sources. We would, however, like to point out that Eurostat, the statistical office of the European Union, is constantly expanding its data collection effort in the field of organic agriculture, and most of the data on organic areas, livestock, and operators was taken from Eurostat. The Eurostat organic farming statistics are available at

- ec.europa.eu/eurostat/web/agriculture > Database > Organic farming
- ec.europa.eu/eurostat/statistics-explained/index.php/Organic_farming_statistics

For market data, data from the private sector, market research companies, or statistical offices are used.

¹ The data was collected by the Research Institute of Organic Agriculture (FiBL), Switzerland, and the Agricultural Market Information Company (AMI), Germany, which are among the partners of the OrganicDataNetwork. In addition, further data sources were used.

Organic Agriculture in Europe: Tables

Table 61: Europe: Organic agricultural land by country 2017

Country	Organic area [ha]	Organic share [%]	Change 2016-17 [%]	Change 2008-17 [%]	Change 2016-17[ha]
Albania	549	0.05%	-17.1%	65.9%	-113
Andorra	2	0.01%	-50.0%		-2
Austria	620'764	24.0%	8.6%	16.7%	49'179
Belgium	83'510	6.4%	6.4%	133.8%	5'058
Bosnia & Herzegovina	1'273	0.1%	28.4%	84.2%	281
Bulgaria	136'629	2.9%	-14.9%	720.0%	-23'991
Channel Islands	180	1.9%	-	-58.1%	-
Croatia	96'618	6.1%	3.2%	865.2%	3'025
Cyprus	5'616	5.1%	1.2%	141.9%	66
Czech Republic	520'032	12.2%	6.4%	52.2%	31'441
Denmark	226'307	8.6%	12.3%	50.8%	24'831
Estonia	196'441	20.5%	8.6%	124.9%	15'589
Faroe Islands	253	8.4%	-	2010.0%	-
Finland	259'451	11.4%	8.9%	72.5%	21'211
France	1'744'420	6.3%	13.4%	198.8%	206'373
Germany	1'373'157	8.2%	9.7%	51.3%	121'837
Greece	410'140	5.0%	19.7%	29.0%	67'556
Hungary	199'684	4.3%	7.2%	62.6%	13'337
Iceland	20'177	1.1%	-11.2%	189.5%	-2'534
Ireland	74'336	1.5%	-3.1%	66.1%	-2'365
Italy	1'908'653	15.4%	6.3%	90.4%	112'290
Kosovo	160	0.04%	-	-	-
Latvia	268'870	14.8%	3.8%	66.4%	9'724
Liechtenstein	1'389	37.9%	0.4%	31.9%	6
Lithuania	234'134	8.1%	5.6%	91.6%	12'469
Luxembourg	5'444	4.2%	27.4%	54.0%	1'170
Macedonia, FYROM	2'900	0.2%	-10.6%	181.8%	-345
Malta	43	0.4%	80.7%	261.3%	19
Moldova	30'142	1.2%	-	157.7%	-
Montenegro	2'715	1.2%	-21.7%	44.7%	-755
Netherlands	56'203	3.0%	7.7%	11.4%	3'999
Norway	47'042	4.7%	-1.2%	-10.0%	-579
Poland	494'979	3.4%	-7.8%	57.7%	-41'600
Portugal	253'786	7.0%	3.6%	18.3%	8'734
Romania	258'471	2.0%	14.2%	84.4%	32'162
Russian Federation	656'933	0.3%	108.4%	1298.9%	341'778
Serbia	13'423	0.4%	-6.5%	198.7%	-935
Slovakia	189'148	10.0%	1.1%	34.4%	2'124
Slovenia	46'222	9.5%	6.1%	54.9%	2'643
Spain	2'082'173	8.9%	3.1%	84.3%	63'371
Sweden	576'845	18.8%	4.4%	71.5%	24'150
Switzerland	151'404	14.4%	6.6%	32.7%	9'331
Turkey	520'886	1.4%	-0.6%	376.2%	-2'891
Ukraine	289'000	0.7%	-24.2%	7.0%	-92'173
United Kingdom	497'742	2.9%	1.5%	-31.5%	7'537
Europe	14'558'246	2.9%	7.6%	75.5%	1'023'011
European Union	12'819'818	7.2%	6.4%	67.0%	771'940

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex.

Table 62: Europe: Conversion status of organic agricultural land 2017

Country	Area [ha]	Fully converted [ha]	Conversion area [ha]
Albania	549		
Andorra	2	2	
Austria	620'764		
Belgium	83'510	69'914	13'596
Bosnia and Herzegovina	1'273	975	298
Bulgaria	136'629	48'463	88'166
Channel Islands	180	180	
Croatia	96'618	42'348	54'270
Cyprus	5'616	3'770	1'845
Czech Republic	520'032	472'798	47'235
Denmark	226'307	162'043	64'264
Estonia	196'441	160'837	35'604
Faroe Islands	253	253	
Finland	259'451	216'693	42'759
France	1'744'420	1'233'806	510'613
Germany	1'373'157		
Greece	410'140	280'733	129'407
Hungary	199'684	104'483	95'200
Iceland	20'177	20'137	39
Ireland	74'336	66'503	7'833
Italy	1'908'653	1'372'340	536'314
Kosovo	160	160	
Latvia	268'870	216'855	52'016
Liechtenstein	1'389	1'080	309
Lithuania	234'134	200'384	33'750
Luxembourg	5'444	4'240	1'204
Macedonia, FYROM	2'900	994	1'168
Malta	43	39	4
Moldova	30'142	21'395	8'747
Montenegro	2'715	1'721	994
Netherlands	56'203	50'203	6'000
Norway	47'042	43'681	3'361
Poland	494'979	383'246	111'733
Portugal	253'786	216'180	37'606
Romania	258'471	149'106	109'365
Russian Federation	656'933	388'051	52'348
Serbia	13'423	7'528	5'899
Slovakia	189'148	176'580	12'568
Slovenia	46'222	40'349	5'874
Spain	2'082'173	1'683'252	398'921
Sweden	576'845	495'488	81'357
Switzerland	151'404		
Turkey	520'886	360'140	160'746
Ukraine	289'000	201'000	88'000
United Kingdom	497'742	466'233	31'509
Europe	14'558'246	9'364'184	2'830'922
European Union	12'819'818	8'316'886	2'509'013

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex.

Table 63: Europe: Land use in organic agriculture by country 2017

Country	Arable land crops [ha]	Permanent crops [ha]	Permanent grassland [ha]	Total [ha]
Albania	93	420		549
Andorra		2		2
Austria	227'987	10'246	382'320	620'764
Belgium	27'821	930	53'852	83'510
Bosnia and Herzegovina	410	116	28	1'273
Bulgaria	66'223	30'485	39'921	136'629
Channel Islands				180
Croatia	44'086	11'787	40'745	96'618
Cyprus	2'913	2'620	82	5'616
Czech Republic	65'490	5'735	424'090	520'032
Denmark	183'267	2'549	40'491	226'307
Estonia	100'814	2'383	88'026	196'441
Faroe Islands	1		252	253
Finland	212'462	542		259'451
France	948'001	117'440	678'981	1'744'420
Germany	548'257	18'093	760'000	1'373'157
Greece	150'176	59'301	200'663	410'140
Hungary	80'521	9'963	109'199	199'684
Iceland	12'748		6'191	20'177
Ireland	3'635	56	70'645	74'336
Italy	839'410	466'892	544'048	1'908'653
Kosovo	160			160
Latvia	136'495	2'411	129'964	268'870
Liechtenstein	233	7	1'149	1'389
Lithuania	149'801	5'780	78'553	234'134
Luxembourg	2'443	179	2'823	5'444
Macedonia, FYROM	1'656	506		2'900
Malta	24	20		43
Moldova	25'982	4'160		30'142
Montenegro	300	423	1'992	2'715
Netherlands	23'828	645	31'730	56'203
Norway	37'927	315	8'800	47'042
Poland	351'192	27'473	116'314	494'979
Portugal	52'103	54'360	147'323	253'786
Romania	194'621	13'166	50'685	258'471
Russian Federation	598'120	104	6'320	656'933
Serbia	7'535	4'033	1'548	13'423
Slovakia	62'977	1'941	124'230	189'148
Slovenia	5'942	2'673	37'607	46'222
Spain	468'370	528'504	1'085'338	2'082'173
Sweden	449'377	599	126'869	576'845
Switzerland	32'797	2'152	113'788	151'404
Turkey	343'069	208'310	16'558	520'886
Ukraine	235'290	5'000	34'680	289'000
United Kingdom	150'037	4'048	333'439	497'742
Europe	6'844'595	1'606'370	5'889'242	14'558'246
European Union	5'548'273	1'380'821	5'697'937	12'819'818

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex. Total includes other agricultural areas for which no land use details were available.

Table 64: Europe: Organic agricultural land and wild collection areas by country 2017

Country	Agricultural land [ha]	Wild collection [ha]	Total [ha]
Albania	549	682'696	683'245
Andorra	2		2
Austria	620'764		620'764
Belgium	83'510	3	83'512
Bosnia and Herzegovina	1'273	150'604	151'877
Bulgaria	136'629	307'020	443'649
Channel Islands	180		180
Croatia	96'618	7	96'625
Cyprus	5'616		5'616
Czech Republic	520'032		520'032
Denmark	226'307	2'648	228'955
Estonia	196'441	260'662	457'103
Faroe Islands	253		253
Finland	259'451	11'631'680	11'891'131
France	1'744'420		1'744'420
Germany	1'373'157		1'373'157
Greece	410'140	317'053	727'193
Hungary	199'684		199'684
Iceland	20'177	200'043	220'219
Ireland	74'336		74'336
Italy	1'908'653	259'878	2'168'531
Kosovo	160	179'580	179'740
Latvia	268'870		268'870
Liechtenstein	1'389		1'389
Lithuania	234'134		234'134
Luxembourg	5'444		5'444
Macedonia, FYROM	2'900	1'164'190	1'167'090
Malta	43		43
Moldova	30'142	424	30'566
Montenegro	2'715	143'410	146'125
Netherlands	56'203		56'203
Norway	47'042		47'042
Poland	494'979		494'979
Portugal	253'786	40'000	293'786
Romania	258'471	1'787'548	2'046'019
Russian Federation	656'933	30'991	687'924
Serbia	13'423	1'550	14'973
Slovakia	189'148		189'148
Slovenia	46'222	13'238	59'460
Spain	2'082'173	38'184	2'120'357
Sweden	576'845		576'845
Switzerland	151'404		151'404
Turkey	520'886	189'251	710'137
Ukraine	289'000	570'000	859'000
United Kingdom	497'742		497'742
Europe	14'558'246	17'970'660	32'528'906
European Union	12'819'818	14'657'921	27'477'740

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex.

Table 65: Europe: Organic livestock by country 2017

	Bovine animals		Sheep		Pigs		Poultry	
	No	Share (%)	No	Share (%)	No	Share (%)	No	Share (%)
Austria	401'484	20.3%	119'744	33.2%	67'247	2.2%	2'093'700	12.3%
Belgium	108'016	4.3%	25'026	21.0%	17'771	0.3%	3'305'490	9.2%
Bulgaria	10'400	1.9%	25'959	1.8%	276	-	3'122	-
Croatia	17'226	3.8%	54'583	8.0%	1'468	0.1%	2'174	-
Cyprus	506	0.9%	791	0.2%	-	-	19'627	0.6%
Czech Republic	255'978	18.9%	98'559	44.6%	2'101	0.1%	43'845	0.2%
Denmark	199'870	12.4%	10'861	7.1%	374'963	3.0%	3'856'284	26.3%
Estonia	40'049	16.3%	34'441	44.8%	571	0.2%	28'797	1.3%
Faroe Islands	-	-	164	0.2%	-	-	8	-
Finland	66'838	7.3%	24'439	18.8%	5'074	0.4%	257'880	4.1%
France	649'856	3.4%	602'124	8.1%	121'036	0.9%	16'392'950*	7.6%
Germany	700'356	-	194'241	14.2%	155'800	0.8%	8'778'000	6.7%
Greece	75'132	11.0%	935'267	9.8%	4'434	0.4%	244'914	0.7%
Hungary	17'741	2.5%	6'260	0.6%	5'333	0.2%	106'292	0.3%
Iceland	249	0.3%	1'281	0.3%	-	-	12'513	3.9%
Ireland	52'390	0.8%	75'015	1.5%	579	-	150'890	0.9%
Italy	336'278	5.4%	736'502	9.3%	61'242	0.7%	2'903'532	1.8%
Latvia	95'585	25.1%	39'882	49.9%	2'571	0.7%	34'131	0.8%
Liechtenstein	1'525	24.3%	1'252	32.9%	71	4.1%	1'787	-
Lithuania	57'270	7.6%	26'840	44.4%	112	-	13'459	0.2%
Luxembourg	4'177	2.2%	476	5.8%	860	1.0%	30'365	26.9%
Macedonia, FYROM	4'401	1.8%	70'170	9.6%	-	-	80	-
Moldova	320	0.2%	1'115	0.2%	-	-	-	-
Montenegro	218	0.3%	1'426	0.7%	-	-	390	0.1%
Netherlands	65'189	1.7%	13'321	1.3%	64'299	0.5%	3'306'422	3.4%
Norway	29'931	3.5%	49'237	2.2%	3'474	0.4%	495'820	10.6%
Poland	27'901	0.5%	19'595	7.3%	3'893	-	291'716	0.2%
Portugal	76'468	5.1%	99'332	4.7%	213	-	48'160	0.1%
Romania	19'339	1.0%	55'483	0.7%	20	-	61'520	0.1%
Serbia	2'474	0.3%	4'665	0.3%	87	-	4'415	-
Slovakia	55'906	12.1%	98'729	25.1%	158	-	4'092	-
Slovenia	35'095	7.6%	36'981	30.8%	3'793	1.1%	104'940	4.6%
Spain	207'121	3.6%	590'900	3.6%	9'938	-	830'100	0.6%
Sweden	307'120	20.5%	126'724	20.8%	30'766	2.3%	1'412'488	16.8%
Switzerland	186'831	12.1%	82'333	24.0%	33'984	2.4%	982'748	8.5%
Turkey	6'632	0.1%	10'900	-	-	-	1'262'307	0.5%
United Kingdom	276'620	2.8%	889'538	2.8%	26'694	0.6%	3'060'087	2.0%
Europe	4'398'530	3.5%	5'187'715	3.4%	998'828	0.6%	50'145'275	2.0%
European Union	4'159'911	5.2%	4'941'613	5.0%	961'212	0.7%	47'384'977	3.3%

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex.

* France: Numbers based on animal slaughtered and not on average stock and hence not comparable to the data from other countries.

Notice In the case of pigs and poultry, in the official statistics, no clear distinction is made between the number of animals slaughtered and the places or average numbers of stock over the years, and it is not always clear which of these is given when "livestock numbers" are quoted. Adding up the data for pigs and poultry over all countries, therefore, is not completely reliable and country data are not necessarily comparable. The data that are presented here should, therefore, be treated with caution and are only an approximation of the overall picture.

Table 66: Europe: Organic producers, processors, and importers by country 2017

Country	Producers	Processors	Importers	Exporters
Albania	61	53	4	36
Andorra		3		
Austria	24'998	1'650	66	14
Belgium	2'105	1'227	235	108
Bosnia and Herzegovina	304	31		15
Bulgaria	6'471	181	29	6
Croatia	4'023	357	23	1
Cyprus	1'175	64	15	2
Czech Republic	5'275	655	250	141
Denmark	3'637	1'018	78	80
Estonia	1'888	169	33	10
Faroe Islands	1	1		
Finland	4'665	360	59	15
France	36'691	14'859	418	
Germany	29'764	15'019	1'687	1'242
Greece	20'197	1'586	30	69
Hungary	3'642	492	36	
Iceland	33	32	2	2
Ireland	1'725	277	24	2
Italy	66'773	18'092	411	518
Kosovo	100	5		2
Latvia	4'178	51	10	
Liechtenstein	45			
Lithuania	2'478	86	12	
Luxembourg	103	89	6	
Macedonia, FYROM	650	119	6	7
Malta	13	5	12	
Moldova	114	2	1	72
Monaco		2		
Montenegro	616	3		
Netherlands	1'696	995	385	87
Norway	2'070	407	84	0
Poland	20'257	795	161	216
Portugal	4'674	760	22	1
Romania	7'908	161	9	6
Russian Federation	89	69		28
San Marino		2		
Serbia	6'022	51	39	1
Slovakia	439	85	22	1
Slovenia	3'627	375	18	
Spain	37'712	4'297	263	137
Sweden	5'801	1'328	89	10
Switzerland	6'638	1'289	548	18
Turkey	75'067	1'142	44	69
Ukraine	304			
United Kingdom	3'479	3'131	182	
Europe	397'509	71'375	5'314	2'916
European Union	305'903	68'243	4'587	2'766

Source: FiBL-AMI survey 2019 based on Eurostat and national data sources. For data sources see annex.

*Total number includes data for countries with less than three operators.

Table 67: Europe: The organic food market 2017

Country	Data year	Retail sales [Million €]	€/person [€]	Organic share [%]	One year growth [%]	Food service [Million €]	Exports [Million €]
Austria	2011						80
	2017	1'723	196	8.6	11.8	109	
Belgium	2017	632	56	2.5	5.0		
Bosnia and Herzegovina	2017	0.4	0.1				4
Bulgaria	2017	29	4		6.5		
Croatia	2011						3
	2014	99	24	2.2			
Cyprus	2006	2	2				
Czech Republic	2016	94	9	0.9		3	61
Denmark	2016						329
	2017	1'601	278	13.3	15.0	275	397
Estonia	2017	42	32	2.6		10	27
Finland	2014						10
	2017	309	56	2.3	13.2		
France	2017	7'921	118	4.4	18.0	452	707
Germany	2009					300	
	2017	10'040	122	5.1	5.9		
Greece	2017	66	6				
Hungary	2009						20
	2015	30	3				
Ireland	2011			0.7			
	2017	206	43		10.5		
Italy	2017	3'137	52	3.2	8.0	415	2'060
Kosovo	2015						6
Latvia	2017	51	6	1.5			51
Liechtenstein	2016	6	171		15.3		
Lithuania	2017	51	18	1.0		5	45
Luxembourg	2016		203				
	2017	122		7.3	13.6	6	
Moldova	2011						15
Montenegro	2010	0.1	0.2				
Netherlands	2016						1'200
	2017	1'206	71	4.5	2.9	305	
Norway	2016			1.7			
	2017	419	80		6.6	28	
Poland	2017	235	6				
Portugal	2011	21	2	0.2			
Romania	2011						200
	2016	41	2				
Russian Federation	2009						4
	2012	120	1				
Serbia	2016						19
Slovakia	2010	4	1	0.2			
Slovenia	2009					0.1	0.1
	2013	49	27	1.8			
Spain	2016						891
	2017	1'903	42	2.8	16.4	59	
Sweden	2016						84
	2017	2'366	237	9.1	9.3	529	
Switzerland	2017	2'435	288	9.0	8.1		
Turkey	2014	46	1				
	2017						182
Ukraine	2017	29	1		38.7		99
United Kingdom	2016						194
	2017	2'307	35	1.5	6.0	96	
Europe		37'341	47				
European Union		34'285	67				

Source: FiBL-AMI survey 2019. For details on data sources see annex.

Note on table: Where no published data exists, best estimates from experts have been used, but new data were not available for all countries. Therefore, in some cases earlier estimates are shown. Values published in national currencies were converted to euros using the 2017 average annual exchange rates according to the Central European bank. Please note that due to fluctuating exchange rates it is not possible to make a year-to-year comparison for countries that do not have the Euro as their currency.

Mediterranean Countries

Organic Agriculture in the Mediterranean Region: Outline and Milestones of the Last 20 Years

MARIE REINE BTEICH,¹ PATRIZIA PUGLIESE,² LINA AL-BITAR,³ AND SUZANA MADŽARIĆ⁴

Organic agriculture started in the mid-1980s in some southern and eastern Mediterranean countries. It was mainly driven by European investors, who saw opportunities in the sector. While organic agriculture registered continuous growth in Europe, its development remained very slow and limited in the Mediterranean until the beginning of the 21st century, when the first aggregated data and information on the organic sector were published. This was possible thanks to the establishment of the Mediterranean Organic Agriculture Network (MOAN) in 1999, which considers organic data collection in the Mediterranean region as a priority and carries out annual surveys and disseminates statistics at the regional and international level. Since then, a consistent evolution in terms of quality, availability, and reliability of information and statistics has taken place. However, there are still challenges. For example, systematic data collection and rigorous quality checks at the country level are still underdeveloped. This is due to the different stages of sector development among the countries and, above all, to the lack of resources (human and financial) allocated to data collection.

In some cases, mainly in non-EU countries, areas under wild collection are still an issue, which results in large differences and fluctuation of the data values registered over time. With the exception of Serbia, Turkey and Morocco, all other EU Candidate and Potential Candidate countries (CPC) and Southern and Eastern Mediterranean (SEM) countries have recorded an undeniably high share of non-agricultural as organic agriculture, which is not always well controlled. For example in Albania and Kosovo, where large areas for wild collection are certified, there is no direct control on the number of “users” or operators accessing it.

In 2006, MOAN started a systematic official annual survey in the Mediterranean countries, resulting in considerably improved data accuracy. Since then, the certified agricultural area grew from 3.5 to 7.5 million hectares, and the number of operators increased from 136'500 thousand to 305'600 in 2017.

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Latest figures

In 2017, the total certified organic area in the Mediterranean region covered over 9 million hectares, of which 7.5 million hectares are organic agricultural area (Table 68).

The largest part of the Mediterranean organic area is once again in the Mediterranean countries in the European Union (EU Med), where the sector is governed and ruled by the EU regulation on organic production. Like in 2016, the EU Med countries have the lead: 75 percent of the Mediterranean countries' organic area (wild collection and agricultural land) and 87 percent of the organic agricultural area is in the EU Med countries. EU Candidate and Potential Candidate (CPC) countries follow with 16 and 7 percent, respectively. Only 8 percent and 6 percent of these areas are located in the Southern and Eastern Mediterranean (SEM) countries, respectively.

Regarding the organic share of the agricultural area, Italy is still leading in the region, and within the EU Med countries, followed by Spain and Slovenia, where the organic shares slightly increased.

The organic share of total farmland is still low in the CPC and SEM countries. In the CPC, Turkey (1.4 percent) has the highest value, and in the SEM, Tunisia (3.0 percent) has the highest organic share.

Acknowledgements

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Mediterranean Countries > Overview

Table 68: Organic statistics in EU Mediterranean (EU Med), Candidate and Potential Candidate (CPC) and Southern and Eastern Mediterranean (SEM) countries, 2017

	Country	Total organic area ^(a) (ha)	Organic agricultural area (ha)	Total number of organic operators
EU Med Countries	Croatia	96'618	96'618	4'328
	Cyprus ^(b)	5'616	5'616	1'715
	France	1'744'420	1'744'420	54'044
	Greece	410'140	410'140	29'595
	Italy	2'168'531	1'908'653	75'873
	Malta	43	43	45
	Portugal	253'761	253'761	5'654
	Slovenia	46'222	46'222	4'028
	Spain	2'082'173	2'082'173	41'871
	EU Med total	6'807'524	6'547'646	217'153
Candidate and Potential Candidate countries	Albania	381'161	549	150
	Bosnia and Herzegovina	659	659	n.a.
	FYROM	n.a.	2'900	650
	Kosovo	373'658	170	n.a.
	Montenegro	146'248	2'797	308
	Serbia	13'423	13'423	434
	Turkey	565'181	543'033	76'322
	CPC total	1'480'330	563'530	77'864
Southern and Eastern Med Countries	Algeria	1'400	1'400	78
	Egypt	165'908	105'908	1'212
	Jordan	1'446	1'446	28
	Lebanon	1'571	1'353	138
	Libya	n.a.	n.a.	n.a.
	Morocco	207'750	9'854	230
	Palestinian Authorities	5'297	5'297	1'499
	Syria	n.a.	n.a.	n.a.
	Tunisia	378'000	306'467	7'400
	SEM total	761'372	431'725	10'585
Total MOAN countries		9'049'226	7'542'901	305'602

Source: MOAN - Mediterranean Organic Agriculture Network, 2018 survey.

(a) Includes wild collection and forests when available; (b) Eurostat data

Note: For some countries, FiBL and MOAN are not using the same data sources, hence the difference in numbers for the MOAN and the FiBL surveys in some cases (both for organic agricultural area as well as percentages)

Milestones of organic agriculture in the Mediterranean

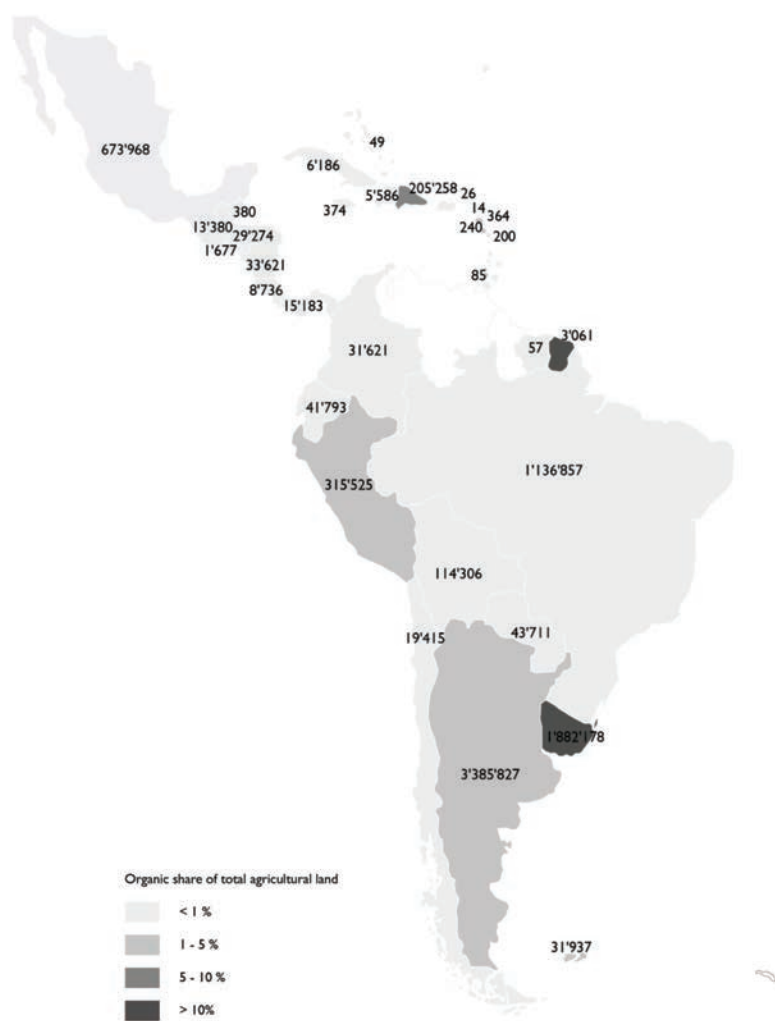
Year	Milestone
1999	CIHEAM Bari launches a Network of experts in Mediterranean Organic Agriculture (MOAN).
	In Malta, the Maltese Movement of Organic Agriculture (MOAM) is established.
	Tunisia issues its first national regulation for organic agriculture.
2000	Algeria introduces financial support for organic farmers.
	CIHEAM Bari starts the first Master of Science Programme in “Mediterranean Organic Agriculture” in the Mediterranean region.
	Serbia adopts its first national law on organic agriculture.
2001	Croatia adopts its first Law on organic agriculture production.
	In Italy, the National committee for organic farming is established.
	Tunisia establishes a central office for organic agriculture at the Ministry of Agriculture and Water Resources.
2002	Algeria, Egypt and Jordan established a central office for organic agriculture at their Ministry of Agriculture.
	In Turkey, a National Committee for organic agriculture research and projects is established.
2003	First Arab Conference on organic agriculture in Tunisia.
2004	Albania and Bosnia and Herzegovina issue their first national regulation for organic production.
	The Former Yugoslav Republic of Macedonia (FYROM) and Montenegro adopt the first national Law on organic agricultural production.
	Morocco establishes a central office for organic agriculture at the Ministry of Agriculture, Fisheries, Rural Development and Forests.
	In Turkey, the national organic Law comes into force.
	Serbia establishes its national organic department at the Ministry of Agriculture, Forestry and Water Management (MAFWM).
2005	Tunisia issues its first National Action Plan for organic agriculture.
	Lebanon drafts a national organic law and submits it to Parliament. A technical committee and a national committee for organic agriculture, as well as the first local certification body, LibanCert, are established.
	In Montenegro, the first national control and certification body “Monteorganica” is established.
2006	In Portugal, the inter-professional organic agriculture organization (INTERBIO) is established.
	MOAN becomes an institutional network composed of representatives from Ministries of Agriculture.
	Albania's first Strategy for Development of organic agriculture for the period 2007-2013 is published, including a National Action Plan.
2007	The Former Yugoslav Republic of Macedonia (FYROM) adopts its first national strategy on organic agriculture 2008-2011.
	Greece implements its agro-environmental support programme 2007-2013, which includes measures for organic operators. This support continues with the Programme for Rural Development 2014-2020.
	Spain issues its National Organic Action Plan 2007-2010.
2008	Albania introduces financial support for organic agriculture
	Egypt issues a ministerial decree for the control and organisation of organic agriculture and two national logos for organic products and inputs.
	In Algeria, the first law including sections related to organic farming is published.

Mediterranean Countries › Milestones

Year	Milestone
	In the Former Yugoslav Republic of Macedonia (FYROM), the federation of organic producers is established.
2009	Montenegro launches its Organic Agriculture Development Programme. In Serbia, the National Association on Organic Agriculture, "Serbia Organica" is established. The Tunisian national organic system is recognized as EU equivalent; Tunisia is the first African country included in this list.
2010	The Former Yugoslav Republic of Macedonia (FYROM) conducts the first national campaign for the promotion of organic agriculture. In Morocco, the Moroccan Association for Organic Production (AMABIO) is established. Tunisia issues its first strategy for organic agriculture development 2010-2014.
2011	Albania includes, for the first time, organic data in the "Agricultural statistical yearbook," published by the Ministry of Agriculture, Rural Development and Water Administration. Croatia publishes its National Action Plan for Organic Agriculture 2011-2016. In Lebanon, a Ministerial Decree to regulate organic production is published. In Montenegro, the National Association of Organic Producers is established. Morocco develops an organic sector development strategy 2011-2020.
2012	In Albania, a National State Commission for organic agriculture is established. In Lebanon, a National Committee for Organic Agriculture is established. Montenegro adopts its National Action Plan for Organic Agriculture 2012-2017.
2013	In Algeria, a National Steering Committee for organic agriculture is established. The Former Yugoslav Republic of Macedonia (FYROM) adopts the National Action Plan for Organic Agriculture 2013-2020. Jordan publishes the first edition of an organic statistics book. The Palestinian Authorities established the Centre for Organic Research and Extension (CORE). The International Symposium on organic agriculture in the Mediterranean region and products with designation of origin is held in Agadir, Morocco.
2015	Tunisia receives an unlimited EU recognition for its organic regulation.
2016	The Former Yugoslav Republic of Macedonia (FYROM) starts a three-year awareness campaign on organic farming across the country. In Morocco, the Moroccan Movement for Organic Farming (FIMABIO) is established. The Palestinian Authorities established a committee for organic agriculture within the Ministry of Agriculture. Tunisia issues its new National Strategy and Action Plan for organic agriculture 2016-2020.
2017	In Croatia, the Croatian Union of Ecological Producers Associations is founded.
2018	In Jordan, the National regulation on organic agriculture is issued and comes into force. Malta establishes a national organic seed database. In Morocco, the national regulation on organic agriculture comes into force. In Serbia, organic agriculture is included in the national Rural Development Programme 2018-2020.

Compiled by Marie Reine Bteich, Patrizia Pugliese, Lina Al-Bitar and Suzana Madžarić, CIHEAM-Bari

Latin America and the Caribbean



Map 5: Organic agricultural land in the countries of Latin America and the Caribbean 2017 (in hectares)

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331.

The History of Organic Agriculture and Agroecology in Latin America and the Caribbean

PATRICIA FLORES¹

Aligned with the celebration of the 20th anniversary of the yearbook “The World of Organic Agriculture,” this article will lead the reader through the history of organic production and agroecology in Latin America and the Caribbean.

Agroecology was established in the 1990s as a science and consequent agricultural practice. It is considered the framework that integrates the different dimensions of sustainability in the agricultural sector. In Latin America, the term “organic” is more related to organic production complying with an organic standard. In some countries, “organic” is considered as the business sector only, and in other countries it is used as a synonym for “agroecological”. Agroecology started as a Latin American expression and practice with a strong social and cultural dimension. Its adoption therefore strongly enhances and addresses livelihoods of smallholders. Since the early 1990s, both “agroecology” and “organic” were part of a discussion across many civil society platforms. In 2005, when IFOAM – Organics International published the principles of organic agriculture, this discussion was put aside as there were more commonalities than differences. In 2018, FAO held a conference on Agroecology and defined 10 principles, therewith acknowledging the concept.²

The timeline starts in the early 1980s, a decade that was particularly relevant in our history because it marked the return to democracy in the majority of the countries in the region. It was a time of change and political and social uncertainty, which saw an increase in participation of civil society promoting agroecology, organic production, and sustainable rural development. It was also a time characterized by private sector participation in an open economy. In the 1990s, the institutional pillars of organized civil society and the private sector were laid. The Latin American Agroecological Movement (MAELA) was founded in 1992 within the context of the 9th International Scientific Conference of IFOAM in Sao Paulo, Brazil. The Latin American Group of IFOAM (GALCI) – now called IFOAM Latin America – was initiated in 2000 after many years of work by the members in the region. In 2007, the Latin American Scientific Society of Agroecology (SOCLA) was initiated with the intention to increase contributions from to the academic sector. These developments provided the basis for the expansion of organic production and agroecology, which inspired social change,

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² In April 2018, the Food and Agriculture Organisation of the United Nations held the Second International Symposium on Agroecology. More information is available at <http://www.fao.org/about/meetings/second-international-agroecology-symposium/en/>.

generated market opportunities and thus income, and consequently contributed to the welfare of society as a whole.

Nowadays, almost all countries in the region have organic regulations, which are at different stages of development and enforcement. Regulations have influenced the dynamics of the sector over the last twenty years, public policies to promote organic production were only triggered in the last decade and have since been implemented in consultation with the main organic stakeholders. Brazil, Mexico, Costa Rica, and Paraguay have national plans to promote organic production based on multi-level and multi-stakeholder dialogue and public consultation. Countries such as Argentina, Chile, Ecuador, and Colombia have special public sector entities promoting organic production and agroecology. These include INTA (National Institute of Agricultural Technology) in Argentina, INDAP (National Institute of Agricultural Development) in Chile, CIALCO (Circuitos Alternativos de Comercialización – Alternative Trading Systems) in Ecuador, and CVC (Autonomous Regional Corporations; e.g., Valle del Cauca) in Colombia.

In the 2000s, public policies addressing family agriculture, food security and nutrition, as well as food sovereignty, were strongly advocated by civil society organizations including grassroots organizations. Important public policies related to these aims and often directly linked to agroecology and organic production were approved. Moreover, many countries have developed strategies to achieve the Sustainable Development Goals (SDGs), especially SDG 2, which seeks to implement sustainable solutions to end hunger in all its forms and achieve food security, through agroecology. Latin America has plenty of development projects and experience in this regard. Recently, the “Nutrition in Mountain Agroecosystems” project was implemented in the Andes region in Ecuador, Peru, and Bolivia¹ by an international consortium led by IFOAM - Organics International, together with the Research Institute of Organic Agriculture FiBL and the Swiss development organisation Helvetas. The project, which aims to advocate and build public policies for the most vulnerable, is delivering important tools to improve food systems in rural communities, based on agroecology.

Organic markets show a positive trend with a high demand not only on the global markets but also domestically. The domestic organic market combines a strong social component with business opportunities bringing benefits to thousands of smallholders and the private sector. This has been the case since the first organic fair, which had a prototype of participatory guarantee system (PGS) organized by Cooperativa Coolmeia in Porto Alegre, south of Brazil. Nowadays Brazil has 24 Participatory Guarantee Systems (called OPACs in the Brazilian regulation) and 368 Social Control Organizations (called OCS) offering organic products from family agriculture to a growing market. In Peru, the Bio Market Network was established to share experiences and lessons learnt. The network offers local consumers organic

¹ For more information on the project “Nutrition in Mountain Agroecosystems” see maan.ifoam.bio.

produce from family agriculture initiatives. Mexico, Brazil, Chile, Paraguay, Bolivia, and Argentina have a national seal to distinguish their organic produce on the local market. In Panama, the competent authority provides public certification of organic products.

According to a recent FAO report (2018), rural poverty decreased in the 1990s and even more so in the 2000s. However, this trend has changed in recent years, and in 2016 two million more people suffered from rural poverty than in 2014, in spite of economic growth. Today, 59 million rural people are living in poverty in the region, and, of these, 27 million are suffering from extreme poverty. These figures are unacceptable in Latin America, where despite the fact that only 18 percent of the region's population lives in rural areas, they account for 29 percent of Latin America's poor, and 41 percent of the women and men who suffer from extreme poverty in the region live in rural areas (FAO 2018).

Latin America and the Caribbean need public policies with multi-sectoral strategies to improve this situation. Organic agriculture and agroecology in Latin America has a history of more than 30 years. What began as an export market, has transformed into a movement and sector, which involves hundreds of thousands of smallholders providing organic food to global and domestic markets. More projects linking agroecology/organic production with healthy diets, better nutrition, and a market system approach, are needed. Such projects serve to build more sustainable food systems, a task which all governments and organic stakeholders should be part of.

Reference

FAO - Oficina Regional para América Latina y el Caribe (2018) Panorama de la Pobreza Rural en América Latina y el Caribe 2018. FAO website. Available at <http://www.fao.org/americas/publicaciones-audio-video/panoramapobrezarural2018/es/>

Milestones of Organic Agriculture and Agroecology in Latin America and the Caribbean

The following table presents a list of milestones from the organic sector and movement. It is not complete as there are many other achievements at the country level, but it intends to show the processes that have taken place in the region of Latin America and the Caribbean.

Year	Milestone
1970-80s	Steve Gliessman applied for first time the concept of agroecology based on the study of farming practices and culture of indigenous people. Several studies and researchers acknowledge ancient, traditional and indigenous knowledge as the basis of agroecology. First agroecology courses launched.
1986	First organic certification by a Latin American certification body (IBD, Brazil) with organic sugarcane smallholders.
1992	First organic seal based on participatory certification issued by Cooperativa Coolmeia, Porto Alegre, South of Brazil. Foundation of MAELA (Latin American Agroecological Movement) in Sao Paulo, Brazil.
1993	Launch of Distance Education Program in Agroecology, by CLADES (Latin American Consortium of Agroecology and Development).
1996	Argentina listed on the European Union's list of approved third countries according to EU regulation 20192/91.
1998	Red Ecológica de Agroecología founded (Brazil). This organization inspired the organic movement to develop participatory certification in all continents. 12th IFOAM International Scientific Conference on Organic Agriculture "Credibility for the XXI Century" in Mar del Plata, Argentina.
1999	Organic regulation in Brazil adopted (IN N°7).
2000	First IFOAM Congress on Organic Local Markets in Latin America, Buenos Aires, Argentina. The Latin American Group of IFOAM (GALCI) – now IFOAM Latin America founded.
2002	Costa Rica listed on the European Union's list of approved third countries.
2003	First Biofach America Latina takes place in Rio de Janeiro, Brazil. Nowadays, it takes place in Sao Paulo together with BioBrazil. 1st Meso-American Meeting of Research Producers and Researchers in Organic Production, Costa Rica. This initiative was expanded to the Latin American and Caribbean Region in 2008, and gathers annually.
2004	First International Workshop on Alternative Certification, Torres, Brazil. Mexican Network of Organic Markets founded (Red Mexicana de Tianguis y Mercados Organicos). First BioBolivia organic annual fair.
2005	Consorcio Agroecológico Peruano, an umbrella network of national agroecological networks in Peru is established, including the national association of consumers (ASPEC).
2006	National Organic Standard in Peru (Decree 044-2006-AG). Organic regulation adopted in Bolivia (Law 3525). Policy for the development of ecological agriculture in Bolivia (Res. 017/2006).

Latin America and the Caribbean › Milestones

Year	Milestone
	National Organic Standard in Bolivia (Resolution RM 280/2006).
	Foundation of IFOAM Latin America Regional Group (Lima, Peru).
2007	Latin American PGS Forum constituted in Brazil. Since then, the Forum (PGS practitioners and representatives of IFOAM – Organics International and the Latin American Agroecological Movement (MAELA)) has met every 2-3 years in a different country.
	Foundation of SOCLA (Latin American Scientific Society of Agroecology) in Colombia.
2008	Establishment of the Network of Competent Authorities in Organic Agriculture of the Americas (CIAO - Comisión Interamericana de Agricultura Orgánica) based on a resolution of IICA (Inter-American Institute for Cooperation in Agriculture).
	Law on organic agriculture and agroecology in Paraguay (Law 3.481).
	Decree on Organic Agriculture in Uruguay (Decree 557).
	Formal constitution of the agroecological network (Red de Agroecología) in Uruguay.
	Law for the development of ecological agriculture in Peru (Law 29196).
	Law on organic agriculture in Chile (Law 20089).
2009	Network of agroecological markets in Valle del Cauca, Colombia
2010	Organic Regulation SAGARPA in México.
	Establishment of the Chamber of Organic Agriculture and Agroecology in Paraguay.
	National Plan for Organic Production and Agroecology in Paraguay.
2011	GMO Moratorium in Peru until 2021 (Law 29811)
	Organic Agriculture and Agroecology Law in Nicaragua (Law 765)
2012	Regulation of Law 29196, Peru (Decree 010-2012-AG).
	National Policy for Agroecology and Organic Production in Brazil (PNAPO).
	1st IFOAM's Organic Leadership Course in México with support from SOMEXPRO (Mexican Society of Organic Production) and SAGARPA (Secretary of Agriculture).
2013	National Plan on Agroecology and Organic Production (PLANAPO) in Brazil.
	National Plan on Agroecology in Uruguay.
	Organic regulation in Ecuador (Agreement Nr. 299).
	National Organic Standard in Nicaragua (NTON 11 041-13).
2014	National Plan on Agroecology and Organic Production (UC-CNAPE) in Bolivia.
2017	Federation of Agroecology in Chile.
	2 nd IFOAM Organic Leadership Course in Brazil.
2018	Enforcement of an equivalence agreement for organic production between Chile and the EU.
	1st Latin American Diploma in Biodynamic Agriculture launched by the Biodynamic Agriculture Association of Peru, Demeter International and the Section of Agriculture of the Goetheanum.

Compiled by Patricia Flores, IFOAM Regional Office Latin America

Latin America and the Caribbean: Current statistics

JULIA LERNOUD,¹ HELGA WILLER,² AND BERNHARD SCHLATTER³

Overview

In 2017, 8 million hectares were reported as being under organic production, which is 1.1 percent of the total agricultural land in Latin America and the Caribbean. Eleven percent of the world's organic agricultural land is in Latin America and the Caribbean. More than 500'000 hectares more were reported than in 2016, continuing the growth of the region after six years of drops. This growth can be attributed to a major increase, mainly of grassland/grazing areas, in Argentina and Uruguay (over 200'000 hectares each). The organic area has doubled since 2000 (over 4 million hectares). The country with the largest organic agricultural area was Argentina with 3.4 million hectares (Figure 93), and the country with the largest number of producers is Mexico with more than 210'000 (Table 69). The highest proportion of the total agricultural area being organic was reached in Uruguay with 13 percent, closely followed by French Guiana with 10 percent.

Land use

Land use details were available for 80 percent of the organic agricultural land. In 2017, only six percent of all organic farmland was utilized for arable crops (almost 446'000 hectares); while almost 61 percent was grassland/grazing areas (4.9 million hectares). Permanent crops were grown in almost 980'000 hectares (12 percent of the organic area in the region), and for 21 percent of the reported area, no details were available. Argentina (almost 3 million hectares), Uruguay (almost 1.9 million hectares), and the Falkland Islands/Malvinas (almost 32'000 hectares) had the largest permanent grassland/grazing areas.

The key organic arable crops are cereals, with almost 154'000 hectares, representing 34 percent of the organic arable area of Latin America and Caribbean, and 0.3 percent of the total cereal area in the region. Most of the cereals were grown in Bolivia (87'000 hectares, mainly quinoa and amaranth), Mexico (40'000 hectares, mainly wheat and grain maize) and Argentina (over 18'000 hectares, mainly wheat). The key organic cereal in the region was quinoa (almost 87'000 hectares) representing more than 53 percent of all the quinoa grown in the region. Organic sugarcane was grown on more than 67'000 hectares in 2017, 0.5 percent of the total sugarcane in the region, with the key producing countries being Paraguay (over 41'000 hectares) and Argentina (almost 14'000 hectares).

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The main organic permanent crops were coffee (almost 422'000 hectares), cocoa (over 230'000 hectares), and tropical and subtropical fruits (almost 187'000 hectares). Organic coffee represented 8 percent of the total coffee area in the region and 47 percent of the world's organic coffee. The countries with the largest organic coffee areas were Mexico (231'000 hectares), Peru (110'000 hectares), and Honduras (23'500 hectares). Furthermore, 12.5 percent of the cocoa area in Latin America is organic. More than 60 percent of the world's organic cocoa area and some of the countries with the largest organic cocoa areas are in Latin America. The Dominican Republic is by far the country with the largest area, with 159'000 hectares, followed by Peru (almost 25'600 hectares), and Ecuador (more than 15'000 hectares). Organic bananas and avocados are the key tropical fruits grown in the region (nearly 50'000 hectares each), 4.1 percent of the regional banana area is organic, and organic avocados represent 14.3 percent of the total avocados area in the region. The countries with the largest organic banana area are the Dominican Republic (almost 22'000 hectares) and Ecuador (over 14'000 hectares); these two countries represent almost a quarter of the regional organic banana area.

Producers

Almost 460'000 organic producers were recorded in Latin America and the Caribbean, in 2017. The countries with the most organic producers are Mexico (210'000), Peru (over 87'000), and Paraguay (over 58'000). It can be assumed that the number of producers is higher because some countries only report the number of farm enterprises/companies.

Wild collection

In Latin America and the Caribbean, organic wild collection plays an important role. There are almost 4.2 million hectares of organic wild collection areas. They are mainly used for the collection of wild fruits (1.2 million hectares) and wild nuts (more than 0.9 million hectares), wild berries (93'000 hectares), palmito (almost 68'000 hectares), and rose hips (over 60'000 hectares). Beekeeping areas represent almost 10 percent of the region's organic wild collection area, almost 420'000 hectares. The countries with the largest organic wild collection areas are Mexico (almost 1.3 million hectares, mainly wild fruits), Brazil (1.2 million hectares, data 2011), Bolivia (0.9 million hectares, data 2014), and Argentina (over 0.3 million hectares, mainly beekeeping). Information on wild collection is not available for many countries, so it can be assumed that the total organic wild collection area is higher than that presented here.

For more information about the Latin American and the Caribbean figures, see data tables for the region, page 271.

Organic Agriculture in Latin America and Caribbean: Graphs

Latin America and Caribbean: The ten countries with the largest organic area 2017

Source: FiBL survey 2019

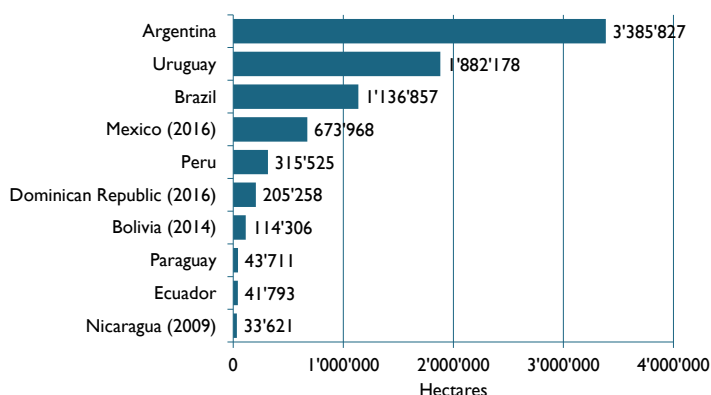


Figure 93: Latin America and Caribbean: The ten countries with the largest areas of organic agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Latin America and Caribbean: The countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019

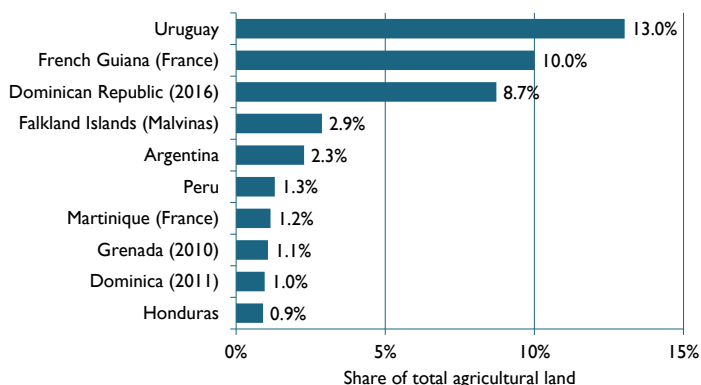


Figure 94: Latin America and Caribbean: The ten countries with the highest organic share of total agricultural land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Latin America and Caribbean: Development of organic agricultural land 2000 to 2017

Source: FiBL-IFOAM-SOEL-Surveys 2002-2019

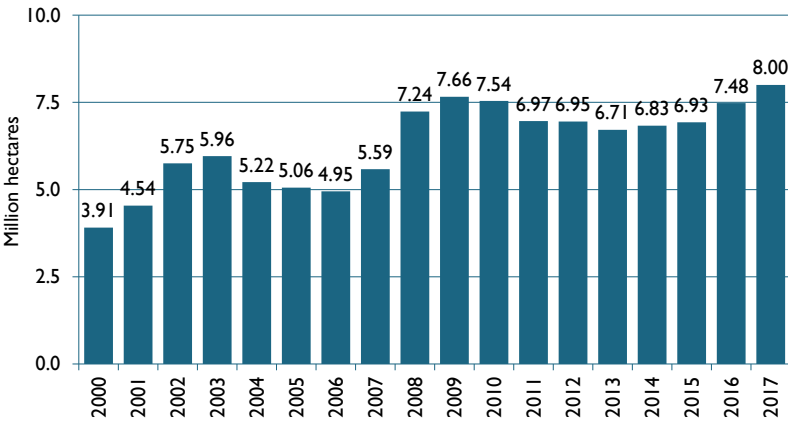


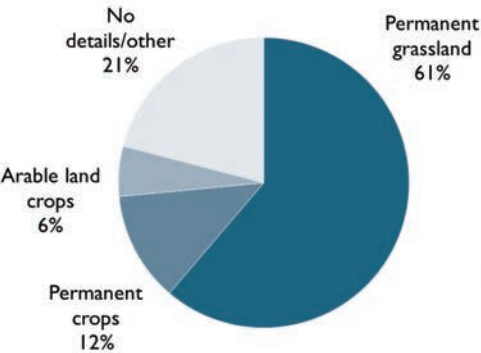
Figure 95: Latin America and Caribbean: Development of organic agricultural land 2000-2017

Source: FiBL-IFOAM-SOEL surveys 2000-2019

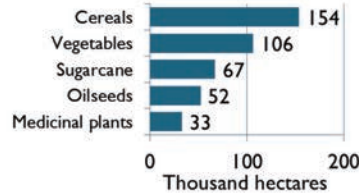
Latin America and Caribbean: Use of organic agricultural land 2017

Source: FiBL survey 2019; based on information from the private sector, certifiers, and governments.

Land use types 2017



Key arable crops



Key permanent crops

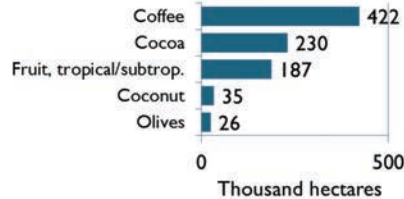


Figure 96: Latin America and Caribbean: Use of agricultural organic land 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Organic Agriculture in Latin America and Caribbean: Tables

Table 69: Latin America: Organic agricultural land, organic share of total agricultural land, and number of producers 2017

For information on data year, see page 325.

Country	Area [ha]	Organic share [%]	Producers [no.]
Argentina	3'385'827	2.3%	1'157
Bahamas	49	0.3%	
Belize	380	0.2%	820
Bolivia	114'306	0.3%	12'114
Brazil	1'136'857	0.4%	15'030
Chile	19'415	0.1%	446
Colombia	31'621	0.1%	4'775
Costa Rica	8'736	0.5%	50
Cuba	6'186	0.1%	509
Dominica	240	1.0%	
Dominican Republic	205'258	8.7%	29'311
Ecuador	41'793	0.7%	12'483
El Salvador	1'677	0.1%	383
Falkland Islands (Malvinas)	31'937	2.9%	4
French Guiana (France)	3'061	10.0%	66
Grenada	85	1.1%	3
Guadeloupe (France)	200	0.4%	49
Guatemala	13'380	0.4%	3'008
Guyana		Wild collection only	
Haiti	5'586	0.3%	2'245
Honduras	29'274	0.9%	6'023
Jamaica	374	0.1%	127
Martinique (France)	364	1.2%	55
Mexico	673'968	0.6%	210'000
Nicaragua	33'621	0.7%	10'060
Panama	15'183	0.7%	1'300
Paraguay	43'711	0.2%	58'258
Peru	315'525	1.3%	87'460
Puerto Rico	14	0.01%	5
Suriname	57	0.1%	
Uruguay	1'882'178	13.0%	5
US Virgin Islands	26	0.7%	
Venezuela		Processing only	
Total*	8'000'888	1.1%	455'749

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

*Total number includes data for countries with less than three operators.

Table 70: Latin America: All organic areas 2017

Country	Agriculture [ha]	Aquaculture [ha]	Other non agri. land [ha]	Wild collection [ha]	Total [ha]
Argentina	3'385'827		11'930	319'370	3'717'127
Bahamas	49				49
Belize	380				380
Bolivia	114'306			922'991	1'037'297
Brazil	1'136'857			1'209'773	2'346'630
Chile	19'415			154'943	174'357
Colombia	31'621			7'320	38'941
Costa Rica	8'736	851			9'588
Cuba	6'186				6'186
Dominica	240				240
Dominican Republic	205'258				205'258
Ecuador	41'793	79	40'007	330	82'209
El Salvador	1'677				1'677
Falkland Islands (Malvinas)	31'937				31'937
French Guiana (France)	3'061				3'061
Grenada	85				85
Guadeloupe (France)	200				200
Guatemala	13'380			5	13'385
Guyana				58'000	58'000
Haiti	5'586				5'586
Honduras	29'274				29'274
Jamaica	374			36	410
Martinique (France)	364				364
Mexico	673'968			1'292'306	1'966'274
Nicaragua	33'621			11'463	45'084
Panama	15'183				15'183
Paraguay	43'711			3'067	46'778
Peru	315'525	4		222'224	537'753
Puerto Rico	14				14
Suriname	57				57
US Virgin Islands	26				26
Uruguay	1'882'178				1'882'178
Venezuela			Processing only		
Total	8'000'888	934	51'938	4'201'829	12'255'588

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 71: Latin America: Land use in organic agriculture 2017

Land use	Crop group	Area [ha]
Agricultural land and crops, no details		1'488'568
Arable crops	Cereals	153'642
	Dry pulses	16'175
	Fallow land, crop rotation	2'948
	Green fodders from arable land	9'940
	Industrial crops	489
	Medicinal and aromatic plants	33'014
	Oilseeds	51'910
	Root crops	1'026
	Seeds and seedlings	222
	Strawberries	1'316
	Sugarcane	67'206
	Textile crops	1'224
	Tobacco	35
	Vegetables	106'042
	Arable crops, other	731
Arable crops total		445'920
Cropland, no details		183'209
Other agricultural land		3'413
Permanent crops	Berries	14'686
	Citrus fruit	15'641
	Cocoa	230'416
	Coconut	34'566
	Coffee	421'919
	Flowers and ornamental plants, permanent	49
	Fruit, no details	102
	Fruit, temperate	13'052
	Fruit, tropical and subtropical	186'947
	Grapes	11'973
	Medicinal and aromatic plants, permanent	8'134
	Nuts	2'833
	Olives	25'944
	Tea/mate, etc.	1'526
	Permanent crops, other	11'880
Permanent crops total		979'665
Permanent grassland		4'900'113
Total		8'000'888

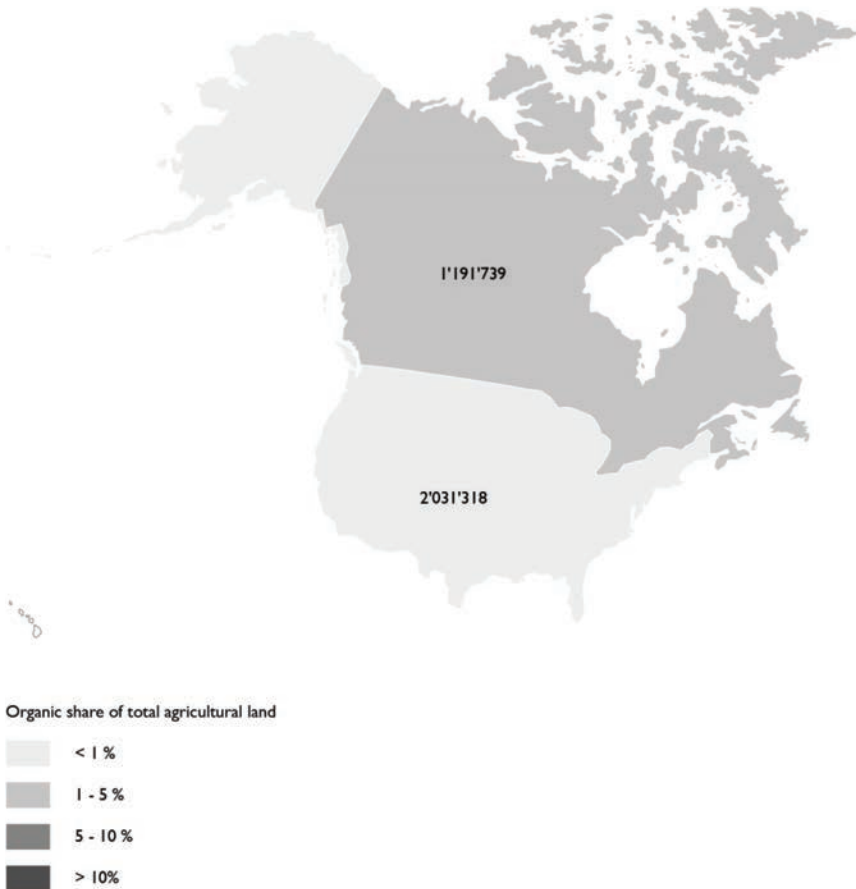
Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Table 72: Latin America: Use of wild collection areas 2017

Land use	Area [ha]
Apiculture	419'837
Berries, wild	93'083
Fruit, wild	1'200'000
Mushrooms, wild	1'932
Nuts, wild	922'991
Palmito, wild	67'867
Rose hips, wild	60'389
Seaweed	500
Wild collection, no details	1'435'229
Total	4'201'829

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

North America



Map 6: Organic agricultural land in Canada and the United States 2017

Source: Canada Organic Trade Association (COTA) and United States Department of Agriculture (USDA). For detailed data sources see annex, page 331.

United States: New Sales Records

BARBARA FITCH HAUMANN¹

US American consumers in 2017 filled more of their grocery carts with organic, buying everything from organic produce and organic ice cream to organic fresh juices and organic dried beans, according to the Organic Trade Association's *2018 Organic Industry Survey*.

US organic sales reached a record 49.4 billion US dollars² (or 43.7 billion euros) in 2017, up 6.4 percent from the previous year and reflecting new sales of nearly 3.5 billion US dollars. The organic food market hit 45.2 billion US dollars (or 40 billion euros) in sales, up 6.4 percent. Sales of organic non-food products rose by 7.4 percent to 4.2 billion US dollars. Meanwhile, the overall food market nudged up only 1.1 percent. Organic continued to increase its penetration into the total food market, now accounting for 5.5 percent of the food sold in US retail channels. There are over 24'000 certified organic operations nationwide.

Fruits and vegetables continued to be the largest organic food category, recording 16.5 billion US dollars in sales with 5.3 percent growth and representing 14.1 percent of all US fruit and vegetable sales.

The organic dairy and egg category had one of its most challenging years. Although still the second-largest selling organic category, sales grew just 0.9 percent to 6.5 billion US dollars. A new wave of supply hit the market just as demand for organic dairy began to shift to more plant-based offerings. The supply of organic milk, however, did lead to increasing organic ice cream sales by over 9 percent, and organic cheese sales rose by almost 8 percent.

United States organic agricultural sector continues to grow

The US organic agricultural sector continues to grow, with 6.5 million acres (approximately 2.6 million hectares)³ of certified organic land recorded as of August 2018 and the addition of 460 new operations during the year, according to Mercaris, a US-based data service and online trading platform for organic, non-GMO and certified agricultural commodities.

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² According to the Central European Bank, the average annual exchange rate Euro/US dollar was 1:1.1297

³ Editors' note: This number is from a different source than that used by FiBL for the global survey on organic agriculture, where the data from the United States Department of Agriculture (USDA) is used (see data tables). The latest data from the USDA is from 2016.

At that time, there were 17'648 US farms certified to the United States Department of Agriculture's (USDA) National Organic Program. Other findings show organic acreage is increasing in most areas of the US, while transitioning to organic corn and soybean acreage is challenging in some Corn Belt areas. (See discussion later in chapter).

Organic Livestock and Poultry Practices rule

Meanwhile, USDA's refusal to implement the industry supported Organic Livestock and Poultry Practices rule has caused consumer uncertainty about organic poultry production practices. The lack of clear organic practices continues to be an issue for the sector, reflecting backlash with consumers opting to buy eggs produced by pasture-raised hens that aren't certified organic.

Animal Welfare

The Organic Trade Association filed a lawsuit against USDA in September 2017 over the agency's continued delay of a final animal welfare rule. Despite overwhelming support for the rule's implementation, USDA in March 2018 withdrew it, thus effectively failing to put into effect new organic livestock and poultry regulations.

The trade association has filed numerous amended complaints to its original lawsuit, with the latest a request for the court to rule on the standing of its claims. In October 2018, the US District Court for the District of Columbia finally granted the association's request for a hearing. A hearing date is expected in early 2019.

Meanwhile, going forward, implementation of the 2018 Farm Bill will have substantial positive impact on the organic sector, with historic wins for organic agriculture and trade in response to tireless efforts of organic stakeholders and champions in Congress.

Farm Bill a major policy win

Approximately every five years, the US Congress passes Farm Bill legislation setting national agriculture, nutrition, conservation, and forestry policy. The 2014 Farm Bill expired in late September 2018. In December, the congressional Farm Bill conference committee reported out a bipartisan bill for approval by both the Senate and House. This bill—The Agricultural Improvement Act of 2018—includes some major and historic wins for the sector. For instance, it establishes permanent funding for organic research and makes significant strides to improve the oversight of global organic trade and safeguard the integrity of organic. Both the US Senate and the House readily passed the new Farm Bill, with the final legislation signed by the President on December 20 to become law.

Among the wins for organic agriculture:

- 50 million US dollars in annual funding for the Organic Research and Extension Initiative program by 2023—more than double the previous funding level.

- Essential tools and funding for improved oversight of trade to ensure the integrity of organic throughout the global supply chain.
- Funding for the organic certification cost-share program that helps incentivize small and beginning farmers to transition to organic by relieving some of the associated costs of annual organic certification fees.
- Full funding for the Organic Data Initiative, USDA's organic data collection program providing accurate market and production information for organic.

Mandatory organic check-off thwarted

In May, USDA terminated the rulemaking process toward establishing a national research and promotion program for organic. The move was unexpected by the industry, as the program led by the Organic Trade Association was on the US Administration's Unified Agenda during summer 2017—a positive sign that the Administration saw value in pursuing the process.

The industry-led effort seeking to establish a proposed organic check-off proposed rule had been underway for over five years, incorporating the input from organic stakeholders throughout the country. Although the proposal was thoroughly vetted, the USDA termination killed the process before it went to an industry referendum.

Voluntary check-off

Undaunted, the trade association has since announced a bold plan to move forward with a voluntary industry-invested organic research, promotion and education check-off like program to be collaboratively designed and implemented by organic stakeholders across the diverse organic supply chain. The trade association formed a Steering Committee to coordinate and lead the efforts. The project has issued a call for stakeholders to submit written submission of "Big Ideas" to shape "GRO Organic" — shorthand for Generate Results and Opportunity for Organic. The deadline for submissions goes until April 2019.

In the meantime, the Organic Trade Association is working on collaborative efforts to provide more immediate programming to address needs of the sector. For instance, in the first year of programming, GRO Organic is seeking funding support for the following:

- Working in partnership with Natural Marketing Institute to investigate the relevance, impact and risk of diverse issues across key demographics.
- Working in partnership with Organic Voices to fund a nationwide campaign to reduce confusion and educate consumers about the benefits of organic.
- Working in partnership with The Organic Center to advance a powerful portfolio of soil health and climate change research that delivers undisputable proof points on the positive impacts of organic.
- Working in partnership with various private and public initiatives to creative ways to support a cost share program that will place organic specialists in the field for technical assistance.

Addressing fraud in organic trade

Another major priority for the US organic sector during 2018 and continuing into 2019 is the issue of fraud in global organic trade. The Global Organic Supply Chain Integrity (GOSCI) Task Force, which the Organic Trade Association organized in 2017, furthered its work during 2018 to develop best practices to manage and verify global organic supply chain integrity to help brands and traders manage and mitigate the risk and occurrence of organic fraud.

During 2018, the GOSCI Task Force initiated a three-month pilot project to facilitate the industry-wide implementation of systems and measures to preserve the integrity of organic, both inside and outside of the United States. Participating in the pilot project were 11 members of the task force who “test drove” the fraud prevention and detection strategies developed thus far. The task force plans to publish a best practices guide for the industry, and is gearing up the Fraud Prevention Program, with supply-chain pre-enrollment to begin in early 2019.

Addressing organic grain shortages

Meanwhile, domestic organic grain shortages continue to be a challenge. Although the US is one of the world’s largest producers and exporters of conventionally grown grains, the production of organic grains here has been slow to take off. The US Organic Grain Collaboration, in partnership with the Organic Trade Association, recently released a report looking at the state of organic grain in the US. From 2008 to 2016, US farmland devoted to the production of organic corn, soybeans, wheat, oats and barley grew by 22 percent from 626’000 to 765’000 acres (253’333 to 309’585 hectares). Over a similar period, the US organic livestock products industry nearly tripled in size, with sales jumping from 1.2 billion to 3.3 billion US dollars. The growth of organic grains has not kept pace.

With inadequate supply of domestically grown organic grain, imports of organic grains have soared, ballooning from 42 million in 2011 to 401 million US dollars in 2016. The report found that key barriers for domestic farmers converting to organic grain production include:

- Risk associated with the high cost of transitioning to organic and the uncertain market guarantee at the end of the transition period;
- Lack of markets for necessary non-cash rotation crops that boost soil fertility and suppress weeds; and
- Insufficient technical assistance and farm management resources.

The report outlines three industry solutions:

- Provide long-term forward contracts
- Coordinate and develop markets for non-cash crops that increase soil fertility and suppress weeds, and
- Increase organic literacy and create new models of knowledge delivery.

“Together, with the continued focus on organic research, these elements will support a solid foundation for the long-term productivity and profitability of the organic farmer,” the report concludes.

International trade

On the international trade front, the impact of retaliatory tariffs on the US organic market has been damaging across the industry. Between January and August 2018, total organic exports from the US have decreased five percent compared to the same period in 2017 in countries that have instituted retaliatory tariffs. In China, organic exports from the United States have decreased 97 percent from this time last year. In Mexico, the second largest US trading partner for organic, exports from the United States have decreased 63 percent from this time last year.

Meanwhile, the Organic Trade Association expanded its US Organic Worldwide program in 2018 to include projects in over 10 international markets. The US continues to lead the international market in terms of size and export volume, allowing participation in several large-scale international trade shows including Biofach in Germany, Naturally Good Australia, and SIAL Paris. Projected export sales at both Biofach and SIAL surpassed numbers in previous years, a great sign for trade despite the challenging export economy. Additionally, the trade association participated in the USDA-hosted third session of Organic Plurilateral meetings in Washington, D.C., with key government officials from current and prospective organic equivalency partners. This opportunity gave key industry stakeholders from around the world the opportunity to discuss major issues facing the global organic industry, with an emphasis on eliminating organic fraud in the global supply chain.

References

- Ghabbour et al. (2017) Chapter One - National Comparison of the Total and Sequestered Organic Matter Contents of Conventional and Organic Farm Soils. *Advances in Agronomy*. Volume 146, 2017, Pages 1-35. Available at <https://www.sciencedirect.com/science/article/pii/S0065211317300676?via%3Dihub>
- Jaenicke, Edward C. U.S. Organic Hotspots and their Benefit to Local Economies. Penn State University, Organic Trade Association (OTA), Washington D.C. Available at https://ota.com/sites/default/files/indexed_files/OTA-HotSpotsWhitePaper-OnlineVersion.pdf
- Mercaris (2018) Mercaris 2018 annual Organic and Non-GMO Acreage Report, www.mercaris.com.
- National Geographic (2018) “We Don’t Have Enough Organic Farms. Why Not?,” National Geographic article, posted November 20, 2018, on its website.
- Organic Trade Association (2018): 2018 Organic Industry Survey 2018. Organic Trade Association, www.ota.com
- Reaves et al. (2018): US Organic Grain—How to Keep it Growing,” Elizabeth Reaves (Sustainable Food Lab), Carol Healy (Sustainable Food Lab), and Jedediah L. Beach (FarmSmart), US Organic Grain Collaboration, in partnership with the Organic Trade Association

Milestones of the Organic Sector in the United States

Year	Milestone
1946	Walnut Acres in Penns Creek, Pennsylvania, billed as America's original organic farm. Its apple butter was the first processed food marketed as organic in the United States.
1947	American publisher and entrepreneur J.I. Rodale founds the Rodale Institute.
1971	Northeast Organic Farmers Association founded in Vermont and New Hampshire (later added three other chapters and changed name to Northeast Organic Farming Association).
1985	As a result of discussions at a 1984 IFOAM meeting in Michigan, the Organic Foods Production Association of North America (OFPANA) incorporated as a non-profit corporation. In 1994, it changes its name to the Organic Trade Association.
1990	The Organic Farming Research Foundation is founded with the goal of advancing organic agriculture research.
1990	In September, Congress passes the Organic Foods Production Act as part of the 1990 Farm Bill, thus establishing national organic standards.
1996	The Organic Materials Review Institute incorporated.
2000	US Congress enacted the Risk Management Act of 2000 that recognizes organic farming as a good farming practice and provides funding for organic risk management.
2000	The Organic Trade Association and IFOAM sign a memorandum of understanding to integrate the America Organic Standards into IFOAM's international organic guarantee system.
2000	Final rule establishing the National Organic Program published on Dec. 21.
2002	National Organic Program fully implemented in October.
2004	The Organic Trade Association begins managing the Organic Export Initiative funded by USDA's Foreign Agricultural Service's Market Access Program.
2006	The Global Organic Textile Standard (GOTS) is introduced as an international organic textile standard.
2009	Officials from Canada and the US sign the first bilateral organic equivalency agreement in the world.
2011	USDA's National Organic Program in May releases a Policy Memorandum addressing the labeling of textile products containing organic ingredients such as organic cotton, organic wool, and organic linen.
2012	US and European Union officials sign an historic organic equivalence arrangement at Biofach in Germany.
2013	US and Japanese officials sign an organic equivalence arrangement.
2015	Creation of the Organic Integrity Database listing all certified organic operations meeting National Organic Program standards.
2016	Conclusive "Hot Spots" research shows organic agriculture boosts local economies (Jaenicke 2016)
2017	Organic Trade Association sue USDA over failure to advance organic livestock standards.
2018	A groundbreaking study shows organic agricultural practices build healthy soils and can help fight global warming (Ghabbour et al. 2017).
2018	Historic advancements and permanent research funding for organic in the 2018 Farm Bill.

Compiled by Barbara Haumann, Organic Trade Association

Canada

TIA LOFTSGARD¹

Organic farms thriving

The Canadian organic sector continues to record significant growth despite the overall agricultural land base remaining stable and non-organic farm operations are in decline. There are now over 6'000 certified organic operations, nearly 4'800 certified organic producers and 1.27 million certified organic hectares (including wild collection). Between 2011 and 2017, organic farmland increased by over 45 percent, while total farmland remained stable with a decrease of one percent. While the number of total farms has declined across Canada, organic producers are flourishing. There are more organic farms operating on more acres than ever before in Canada.

Organic processing

According to a forthcoming report on organic processing in Canada, there are 1'118 organic food processing companies in Canada. The estimated sales value of organic processed foods and beverages is 2.5 billion Canadian dollars² (approx. 1.7 billion euros) in sales for 2017. According to interviews with the leading organic food processors in Canada, most businesses are experiencing year-over-year growth of more than 10 percent.

Regionally, most of these operations are in provinces with more mature organic markets, namely Ontario, Quebec, and British Columbia. Operations reflect regional specialization. For example, Quebec and New Brunswick are home to most organic maple syrup operations, while British Columbia boasts the majority of organic aquaculture companies. In terms of value, the largest product category is dairy, followed by ready meals and bread. By number of processors processing a product type, the largest organic food products are beverages (alcoholic and non-alcoholic), maple products and grain products.

The top five challenges for the organic food processing sector (in order of importance) are access to capital, sourcing ingredients, cost of ingredients, sourcing technical expertise and sourcing ingredients close to the manufacturing facility.

Market updates

In late 2017, the Canada Organic Trade Association released the second ever Canadian Organic Market Report.³ This in-depth publication provides the most up-to-date

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² One Canadian Dollar corresponded to 0.683 Euros in 2017 according to the European Central Bank.

³ The Canadian Organic Market Report can be found on the OTA website at <https://ota.com/sites/default/files/Canadian%20Organic%20Market%20Report%202017%20teaser.pdf>

overview of the Canadian organic market, combining consumer research with sales and trade data to provide valuable insights into market size, growth trends and Canadian consumer perceptions. It estimates Canada's total organic market (including food and non-food items) has reached 5.4 billion Canadian dollars, up from 3.5 billion Canadian dollars in 2012, with a compound annual growth rate of 8.7 percent. Over the same timeframe, the market share of organic food and beverages sold through mainstream retailers has grown from 1.7 percent to 2.6 percent.

Another study of the inclusion of organic food and beverages within the foodservice sector provides new details on the growth of organic in restaurants, cafes, public institutions, and the travel and leisure sector. The findings show that travel and leisure, which includes planes, trains, movie theaters and more, are hot spots for organic growth. The proliferation of organics has occurred elsewhere in high-end and fast casual restaurants, but at a slower pace. The integration of organic within public institutions – e.g., hospitals, schools, universities – has been notably lower than other food service sectors, but shows promise moving forward.

COTA's State of Organic Performance Report

The Canada Organic Trade Association released a report outlining how each of the provincial governments rank in supporting the needs of the organic sector. Key recommendations outlining regulatory gaps that need to be addressed brought significant attention to the issues the industry face and some positive changes occurred as a result of the report.

Canada's national organic standards apply to products that are sold across provincial, territorial or national borders or bear the Canada Organic logo. However, a significant regulatory gap exists for products that are grown and sold only within provincial borders and do not bear the Canada Organic logo as there is no federal oversight of products that claim to be organic in these scenarios. Provincial Organic regulations are necessary to ensure a level playing field for organic farmers in order to have provincial oversight and enforcement over organic claims for products sold within their provinces.

Five of the ten provinces of Canada have organic provincial regulations, each coming into force at different junctures in time (pre-and post the implementation of the 2009 Canada Organic Regime). British Columbia, Manitoba, Nova Scotia, and New Brunswick have adopted the national standards, while Quebec has its own organic regulation (that includes the certification of retailers). Alberta's Local Food Act has a section covering its provincial organic products and will come into force in April 2019. The largest organic consumer market in Canada, Ontario, is in the middle of passing Bill 54 to ensure an Organic Act is put into place. Ontario, Saskatchewan, and the four remaining provinces and territories do not have provincial regulations in place. This creates an unequal playing field and risks for the integrity of the Canada Organic brand which industry is lobbying hard to address with the different levels of government.

New regulatory framework for organics

The Safe Food for Canadians Act was passed in 2012. This Act sought to bring together 14 different Acts within the regulatory regime and harmonize them into a single Act. Organic regulations were included in this modernization process. The Safe Food for Canadians Regulation was released in June 2017, detailing the final changes in Chapter 14 to the Organic Regulations. The Organic Products Regulation will cease to exist as of January 15, 2019, when the Regulation comes into force.

There are several changes anticipated as a result of this regulatory update, but most notably, Canada will be one of the first countries in the world to federally regulate organic aquaculture products by incorporating the previously voluntary aquaculture standard, CGSB 32.312, into the Canadian Organic Regime.

Advocating for organic

The Canadian Organic Standards review process was to commence in March 2018 in order to be ready for publication by Fall 2020 as part of the regular review processes required by the Standards Council of Canada. Three national industry associations (Organic Federation of Canada, Canada Organic Trade Association and Canadian Organic Growers), and all provincial organic associations teamed together to lobby the government for a Federal funding commitment to ensure that industry would not be held responsible to fund the standards review themselves. The Federal government committed 250'000 Canadian dollars in January 2018 and subsequently another 292'555 Canadian dollars in August 2018 to ensure that the Standards review process could move ahead. The industry continues to lobby for a commitment from the Federal government for permanent, ongoing funding for the Organic Standards review to remain current and competitive with all of Canada's organic equivalency trade partners.

In September 2017, the Canadian federal government announced an investment of 461'816 Canadian dollars to support the growth of domestic organic agriculture. Funding was provided to the Canadian Organic Growers (COG) to conduct a pan-Canadian study of the risks involved in transitioning from conventional to organic production. This first-of-a-kind study reached out to organic and transitioning producers across the country through focus groups and in-depth interviews. The results of the study are available for use in developing strategies to increase domestic organic production.

Research

The Organic Science Cluster funding was renewed by the Federal government, investing 8.3 million Canadian dollars into organic research in Canada being conducted by the Organic Agriculture Centre of Canada (OACC). This research investment includes an additional 4.4 million Canadian dollars in industry contributions to fund scientific research into soil health and fertility management,

crop breeding, pest management and evaluate the environmental impacts of organic farm practices.

Website references

- Canada Organic Trade Association – www.canada-organic.ca and www.canada-organic.myshopify.com (publications)
- Canadian Organic Growers – www.cog.ca
- Organic Federation of Canada – www.ofc.ca
- Organic Agriculture Centre of Canada at Dalhousie University - <https://www.dal.ca/faculty/agriculture/oacc/en-home.html>

Milestones of the Organic Sector in Canada

Year	Milestone
1953	The Canadian Organic Soil Association (COSA), later renamed the Land Fellowship, is formed as the first formal agricultural organization in Canada.
1953	The Back to the Farm Research Foundation (BFRF) becomes the first certified organic research and demonstration farm in Canada.
1975	Peter McQueen starts the Organic Gardeners and Farmers Association, renamed Canadian Organic Growers (COG) in 1978 as a national organic charity.
1980s	Le Mouvement pour l'agriculture biologique (MAB) commences in Quebec.
1982	Demeter commences operation in Canada.
1983	The first certification body Organic Crop Improvement Association Ontario (OCIA-ON) Eastern chapter is established, other local chapters follow.
1983-1992	The Organic Producers Marketing Co-operative (also known as the Girvin Co-op) is the first organic marketing co-operative in Canada.
1984	IFOAM calls a meeting in North America which results in Organic Food Production Association (OFPA), today Organic Trade Association (OTA), and eventually Canada Organic Trade Association (COTA).
1984	Annual conference for Organic starts in Ontario, later becomes "Eco Farm Day."
1990	The Canadian Organic Unity Project (COUP), renamed as the Canada Organic Advisory Board in 1992, begins a collaborative industry and government consultation process to discuss developing industry-driven organic standards and an accreditation system to be supported by a federal regulation. This is the beginning of the process leading to the implementation of a Canadian Organic Regulation (COR) in July 2009.
1992	The Glenlea Long-term Rotation Study is established by Dr. Martin Entz as the first and longest running cropping systems study comparing organic and non-organic systems in Canada.
1995	The first National Organic Standard is developed by the Canadian General Standards Board working with the Canadian Organic Advisory Board; another important step in the progress towards a nationally regulated system.
1997	The first national organic statistics are published in Canada by industry.
1997	"Garantie-Bio" establishes a certification program for distributors and obtains accreditation from Ecocert in Quebec.
1999	The first Canadian voluntary organic standard is established.
2001	The Organic Agriculture Centre of Canada is established by Dr. Ralph Martin at the Nova Scotia Agricultural College (later Faculty of Agriculture, Dalhousie University).

North America › Canada › Milestones

Year	Milestone
2002	Canada hosts IFOAM World Congress in Victoria, British Columbia.
2002	A National Strategic Plan for the Canadian Organic Food and Farming Sector, by Rod MacRae et al., is published by the Organic Agriculture Centre of Canada.
2005	Dr. Derek Lynch named as First Canada Research Chair in Organic Agriculture.
2006	The proposed Organic Products Regulations (OPR) are published in the Canada Gazette. However, implementation is delayed until June 2009.
2006	National Organic Value Chain Round Table (OVCRT) is formed to bring together industry leaders with governments to build and implement a shared strategic vision for organics in Canada.
2006	The Organic Federation of Canada (OFC) is formally established.
2007	Canada Organic Trade Association (COTA) is incorporated in Canada as an independent not for profit, with an affiliation agreement with OTA.
2009	In June, the adoption of the national Canadian Organic Standard through the Organic Products Regime (OPR) comes into force. Officials from Canada and USA sign the first bilateral organic equivalency agreement in the world in the same month.
2009	The first Organic Science Cluster (OSCI) is established with a budget of \$8.8 million led by the Organic Agriculture Centre of Canada at Dalhousie University in collaboration with the Organic Federation of Canada.
2010	COG and COTA create Organic Week (an educational campaign directed towards consumers).
2012	The first Canadian Organic Science Conference is held in Winnipeg, Manitoba.
2012	The voluntary Organic Aquaculture standards are published through the Canadian General Standards Board.
2018	The amended Canada Organic Production Standard and Permitted Substances List is published in March.

Compiled by Tia Loftsgard, Canada Organic Trade Association. Sources: Andrew Hammermeister, Director of Organic Agriculture Center of Canada; Tomas Nimmo, General Manager of Guelph Organic Conference; Tim Rundle, Director of Pacific Organic Seafood Association; COTA's State of Organics Performance Report 2017; *Petite Histoire de la certification Biologique au Québec*, available at http://agora.qc.ca/documents/agriculture_biologique-petite_histoire_de_la_certification_biologique_au_par_charles-eugene_bergeron; Canadian Organic Growers: Our history, available at <https://www.cog.ca/home/about-us/our-history>; Sask Organics: History of Organics on the Prairies, Milestones, based on *Organic Farming on the Prairies, 2nd Edition (2013)*, available at <http://saskorganics.org/history-of-organics-on-the-prairies/>; Canadian Organic Growers: The Canadian Organic Grower, available at <http://magazine.cog.ca/article/canadas-organic-coming-age/>

North America: Current statistics

JULIA LERNOUD,¹ HELGA WILLER,² AND BERNHARD SCHLATTER³

Overview

North America's organic agricultural land was 3.2 million hectares in 2017, which is 0.8 percent of the total agricultural area. The area under organic cultivation has trebled from the million hectares in 2000, and now represents five percent of the global organic agricultural land. Between 2016 and 2017, the area increased by almost 93'000 hectares or 3 percent. Almost 1.8 percent of the farmland in Canada is organic, and the proportion in the United States is 0.6 percent. There is a total of 19'017 producers in North America; most of them are in the United States (almost 75 percent).

Land use

Land use details were available for almost the whole of the organic agricultural land. In 2017, only two percent of all organic farmland was utilized for permanent crops (almost 104'000 hectares) while almost 44 percent was used to grow arable crops (over 1.4 million hectares), and 43 percent (over 1.4 million hectares) was grassland/grazing. The United States has the largest grassland/grazing area, almost 933'000 hectares, and Canada reported more than 468'000 hectares.

The key organic arable crop group is cereals, with almost 546'000 hectares, representing almost 39 percent of the region organic arable area, and 0.8 percent of the total cereal area in the region. In the United States, over 281'000 hectares of organic cereals were grown, and Canada reported almost 264'500 hectares. The key organic cereal in the region was wheat (more than 154'000 hectares), this represented 0.6 percent of the total wheat grown in the region. Organic vegetables were grown on 70'000 hectares in 2017, 7.5 percent of the total vegetables in the region, with leafy/stalked vegetables (nearly 25'000 hectares) and fruit vegetables (over 15'000 hectares) being the key produced vegetables.

The main organic permanent crops were temperate fruits (almost 13'000 hectares), grapes (almost 12'000 hectares), and nuts (almost 9'000 hectares). Organic temperate fruits represented 4.1 percent of the total temperate fruit area in the region. The key temperate fruits are apples, cherries, and peaches. The key organic berries are blueberries (over 6'000 hectares, 6.8 percent of the total blueberries grown in the region), and cranberries (647 hectares, 2.7 percent of the region's cranberries).

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Producers

In 2017, 19'017 organic producers were reported in North America. The United States is the country with the most organic producers, over 14'000, and Canada reported over 4'800 organic producers. Since 2004, when there were 11'000 organic producers, the number increased over 66 percent.

Wild collection

Unfortunately, for the United States data on organic wild collection is not available with the exception of over 300 of wild blueberries, so it can be assumed that the wild collection area is much bigger in the region than the current 83'832 hectares reported mainly by Canada. In Canada, there are almost 77'000 hectares of maple trees, a key commodity for the country.

Market

In 2017, the organic market continued to grow in North America, reaching 43 billion euros. In Canada, the organic market grew by over 9 percent in 2017, and in the United States, the organic market grew by 6 percent. The United States is the largest single organic market in the world, and North America continues to be the region with the largest organic market. In the United States, people spent 122 euros per capita on organic products in 2017, while in Canada the per capita consumption was 83 euros. For 2017, Canada reported an organic share of the total retail sales of 2.6 percent, and in the United States, an organic share 5.5 percent was noted.

For more information about the North American figures, see data tables, page 291.

Organic Agriculture in North America: Graphs

North America: Organic agriculture area 2017

Source: COTA and USDA, 2019

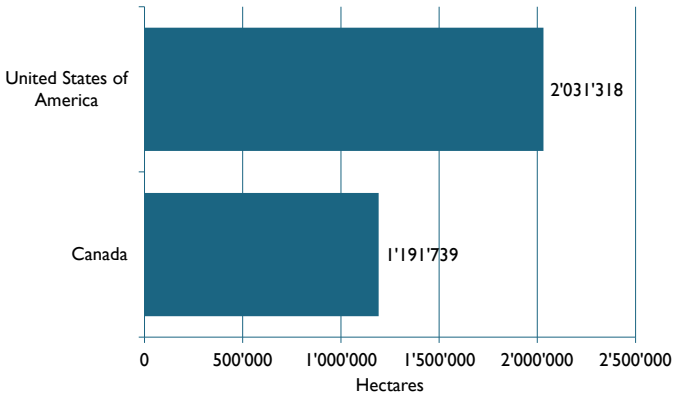


Figure 97: North America: Organic agricultural land in Canada and the United States 2017

Source: Canada Organic Trade Association and United States Department of Agriculture.

North America: Organic share of total agricultural land 2017

Source: COTA and USDA, 2019

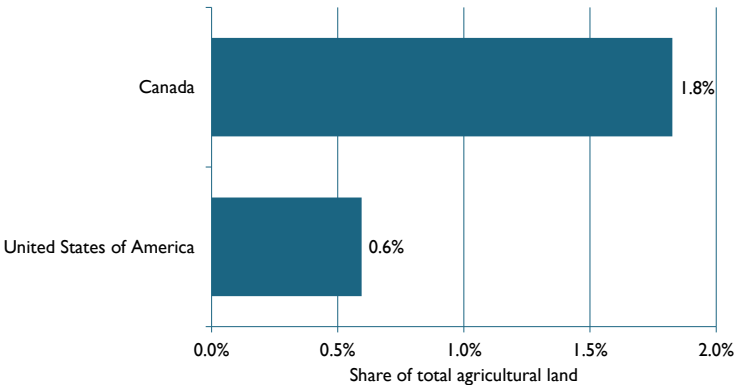


Figure 98: North America: Organic share of total agricultural land in Canada and the United States 2017

Source: Canada Organic Trade Association and United States Department of Agriculture.

North America: Development of organic agricultural land 2000-2017

Source: COG-COTA and USDA, 2001-2019

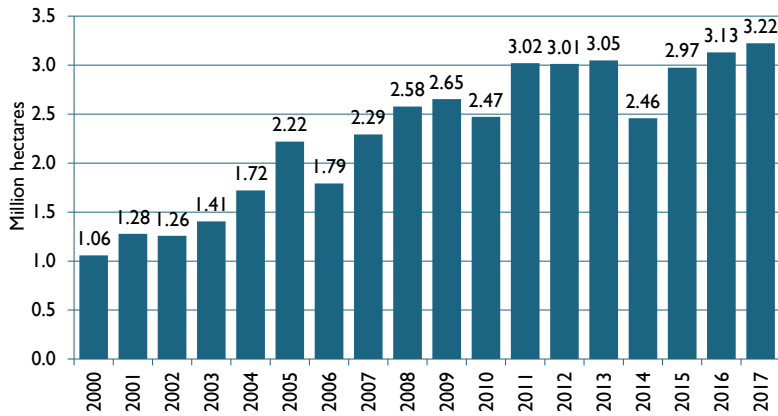


Figure 99: North America: Development of organic agricultural land 2000-2017

Source: Canada Organic Trade Association and United States Department of Agriculture¹

North America: Use of organic agricultural land 2017

Source: FiBL survey 2019; based on information from the private sector, certifiers, and governments.

Land use types 2017

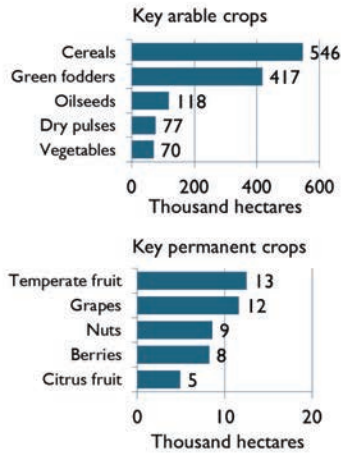
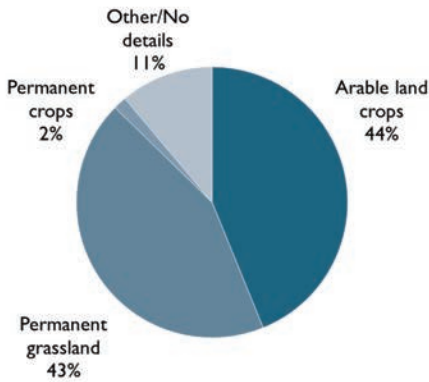


Figure 100: North America: Land use in organic agriculture 2017

Source: Canada Organic Trade Association and United States Department of Agriculture

¹ Due to methodological differences, the United States shows a drop of its area in 2014. A reason could be that the wild collection might have been included in the past.

Organic Agriculture in North America: Tables

Table 73: North America: Organic agricultural land, organic share of total agricultural land, and number of producers 2017

Country	Area [ha]	Share of total agr. land [%]	Producer [no.]
Bermuda		Processing only	
Canada	1'191'739	1.8%	4'800
United States of America	2'031'318	0.6%	14'217
Total	3'223'057	0.8%	19'017

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2019

Table 74: North America: All organic areas 2017

Country	Agriculture [ha]	Forest [ha]	Wild collection [ha]	Total [ha]
Bermuda		Processing only		
Canada	1'191'739		83'493	1'275'232
United States of America	2'031'318	205'196	338	2'236'852
Total	3'223'057	205'196	83'832	3'512'084

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2019

Table 75: North America: Land use in organic agriculture 2017

Land use	Crop group	Area [ha]
Agricultural land and crops, no details		332'039
Arable land crops	Arable crops, no details	5'863
	Cereals	545'707
	Dry pulses	76'669
	Fallow land, crop rotation	125'686
	Flowers and ornamental plants	382
	Green fodders from arable land	417'248
	Hops	273
	Medicinal and aromatic plants	1'601
	Mushrooms and truffles	11'322
	Oilseeds	118'039
	Root crops	12'309
	Seeds and seedlings	872
	Strawberries	2'588
	Textile crops	15'589
	Tobacco	4'045
	Vegetables	70'000
	Arable crops, other	5'128
Arable land crops total		1'413'321
Other agricultural land total		26'053
Permanent crops	Berries	8'219
	Citrus fruit	4'919
	Coffee	87
	Fruit, no details	312
	Fruit, temperate	12'570
	Fruit, tropical and subtropical	3'519
	Grapes	11'669
	Nurseries	91
	Nuts	8'573
	Olives	719
Permanent crops total		50'679
Permanent grassland		1'400'964
Total		3'223'057

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2019

Oceania



Map 7: Organic agricultural land in the countries of Oceania 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 331.

Australia

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Introduction

Australia has seen even more growth in 2017 in the area of pastoral land under certified organic management, bringing the total certified organic area to about 35 million hectares. The number of certified organic primary producers fell slightly in 2017 to 1'998 producers, though organic processor and handler numbers were up. With the usual caveats around the difficulties of sourcing robust data, the total value of the organic market in Australia for Australian produced goods is estimated to be 2.4 billion Australian dollars^{8,9} (retail sales and exports). Using a limited data set, it is estimated that the overall volume (in metric tons) of Australian-grown organic products exported to other countries decreased by 3 percent between 2016 and 2017, probably as a result of the extreme drought conditions experienced in eastern Australia. The regulatory and governance arrangements in the certified organic sector in Australia have remained stable since the last World of Organic Yearbook (Lawson et al. 2018). Rationalization of the regulatory framework remains a work in progress. A major recent achievement for the organic sector in Australia has been the establishment of the Centre for Organics Research at Southern Cross University.

Primary producers and area of farmland

The area of land under certified organic management has been growing strongly every year for the last few years. For 2017, it was conservatively estimated at about 35 million hectares – or about 10 percent of all of Australia's agricultural land (see Table 76). As in previous years, the majority of this area (and of growth in area) lies in the vast rangelands region known as the Outback, where the predominant enterprise is pasture-based beef cattle production.

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⁸One Australian dollar corresponded to 0.679 euros in 2017 (average exchange rate according to the Central European bank.

⁹2.4 billion Australian dollars corresponded to 1.6 billion euros in 2017.

Nonetheless, the number of certified organic operations continues to grow every year. In 2017, aggregated numbers of certified producers, processors and handlers reached 4'028 operations. At 1'998 certified producers, producer numbers fell slightly from the previous year (-3 percent), perhaps reflecting a general trend of consolidation of farms into bigger units in some areas of Australia. But processor and handler numbers have grown significantly to 1'432 and 598 operations respectively (increasing by 23 and 17 percent, respectively). This is in line with the historical trend. The largest plant-based sector in terms of numbers of farms was fruit growing, and the largest animal-based sector was beef cattle.

Table 76: Estimated certified organic primary production operations and area in Australia 2002-2017

Year	Primary production operations	Area under certified organic management (hectares)
2002	1'650	6'150'171
2003	1'730	11'198'188
2004	1'859	12'077'362
2005	1'871	11'715'744
2006	1'691	12'294'290
2007	1'776	11'988'044
2009	2'129	12'001'724
*2011	2'117	11'199'578
2014	1'707	22'690'000
**2015	1'999	22'108'495
**2016	2'075	27'145'021
**2017	1'998	35'645'038

* Estimated using Australian Bureau of Statistics (ABS) data. Organic industry sources put this as high as almost 17 million hectares

** Based on data from the two largest certifiers only – Australian Certified Organic (ACO) and NASAA Certified Organics (NCO) – and therefore an underestimate.

Exports

The limited available data suggest that the export scene for Australian-grown organic agriculture is strong, with growth in tonnage and value over the last three years. Tonnage exported in 2017 was slightly down compared to 2016 figures (by 3 percent) probably due to the exceptionally severe drought in eastern Australia. Organic products grown and manufactured in Australia are exported to every region of the globe, with new markets opening up in locations as diverse as Bulgaria and Tonga. Especially strong trade occurs to east and south-east Asia (particularly China, Japan, South Korea, and Singapore), and North America (particularly the USA) (see Figure 1). Processed foods, beef and baby foods and formula were the sectors with the largest export volumes (by tonnage) but there was plenty of growth in more specialised products including wine, soya and bakery items. Particular countries have a penchant for Australian-grown organics, such as the USA for beef, lamb, fruit and vegetables,

Sweden for organic wine, China for organic dairy products, South Korea for baked goods and soya products, and Hong Kong for organic eggs.

Global supply chains for organic products and the positive image of Australia present opportunities for the Australian organic food sector. Austrade (the Australian Government Trade and Investment Commission) foresees opportunities for organic exports from Australia, especially in mainland China as well as Hong Kong, Japan, Singapore, Indonesia, Malaysia, and New Zealand. Challenges for Australia's organic exports include multiple non-harmonised organic standards around the world, eco-label proliferation, and 'buying local' trends.

Australia: Estimated percentage of certified export (by metric tons) from Australia destined for global regions 2017

Source: Australian Organic 2018

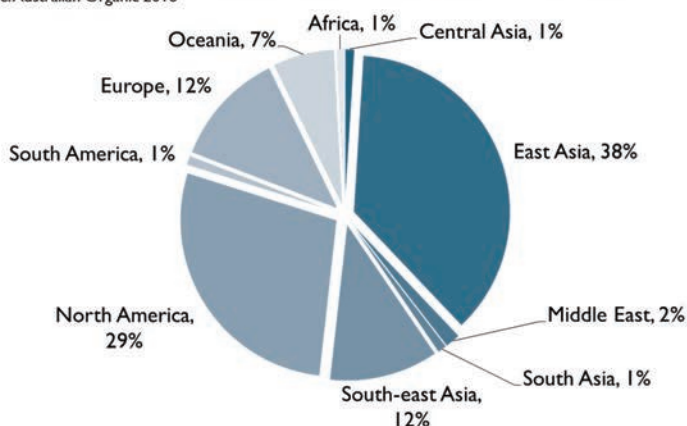


Figure 1: Estimated percentage of certified export (by metric tons) from Australia destined for global regions 2017

Source: Australian Organic 2018

Market value

With the usual caveats around the difficulties of sourcing robust data – which affects most organic market calculations the world over (Home et al 2017) – the total value of the organic market in Australia for Australian produced goods (retail sales and exports) is estimated to be 2.4 billion Australian dollars. This is an increase close to 88 percent on the total value estimated in 2012, or a compound annual growth rate (CAGR) of 13 percent. Fruit, vegetables, nuts, meat, and eggs account for almost three quarters of the value, and these sectors have grown substantially since 2014.

Overall farm-gate production, processing and exports appear to be strong, with substantial gains since 2012. Domestic retail sales are up, albeit with slow recent growth. This suggests exported raw produce as a major contributor to overall growth.

Organics has climbed to about 3 percent of the total farm-gate value of all agricultural commodities produced in Australia from about 1 percent in 2014. Some sectors such as fruit, vegetable, nuts, eggs and poultry meat show even stronger performance. Fruit, vegetables, nuts, and meat are significant contributors across the organic value chain, and make up the bulk of production and processing value. Fruit, vegetables and nuts, meat, and dairy account for most domestic retail value. Meats dominate exports.

Post-farm gate outlook

In a survey of Australian operators in post-farm gate roles in the organic sector (e.g., processors, manufacturers, retailers), most responding operators were upbeat about sales in 2017, reporting that they expected increased sales in wine, beverages, honey and nuts, poultry meat, eggs, fruit, vegetables, and processed food. Some operators reported using imported organic ingredients or services. This suggests an undersupply of certain ingredients and services, as well as opportunities for domestic Australian suppliers, especially in grain products, processed foods, services to organic farming, wine and beverages, meat, oil crops, cosmetics and essential oils, and inputs to organic farming.

Post-farm gate operators reported that the factors most crucial for market growth for Australian-grown organic produce will be increasing the number of new organic consumers, product quality, and improved certification. The major constraints to growth were reported as cost of production, lack of consumer awareness, and consumer income levels. The key risks to organic businesses were said to be small product volumes, cost of product handling, and information and reporting complexity. Surveyed operators dealing with grain products, oil crops, poultry meat and eggs, dairy, honey and nuts continue to report a positive ratio of the organic price premiums to the additional costs involved in organics, compared with conventional products.

Surveyed post-farm gate operators reported on the types of assistance they regard as helpful. The most desired forms of assistance operators would like from governments and certifying organisations were:

- Promotion of local businesses and brands;
- Targeting organics as a creator of local jobs;
- Improved advisory and extension services for organics;
- Funding for training and research;
- Subsidising certification costs;
- Access to finance; promotion of organics;
- Reduced certification costs; and
- Keeping the whole supply chain better informed.

The Australian organic consumer

The organic retail market in Australia is estimated to exceed 1 billion Australian dollars per annum. As a high income, highly urbanised country, Australia is positioned to see further increases in organic consumption. Dry grocery, health and beauty, and dairy are the largest organic retail sales sectors: when combined they comprise half of all organic sales. The increase in product availability, combined with the added convenience of more retail channels, is increasing frequency of organic purchasing and adding new consumers to the market.

Food products are a key organic market entry point for Australian consumers, commencing their journey into an organic lifestyle. Food retailing in Australia is dominated by supermarkets, which to date have offered a narrow range of organic products. Access to specialist stores, and greater product variety, are likely to influence Australian organic consumption, along with opportunities for producers.

Regulatory framework

There have been almost no substantive changes to the regulatory framework governing organics in Australia over the past year, though there was considerable discussion on reform proposals in 2017-18. To summarize the current arrangements, the regulatory framework in Australia differs depending on whether organic products produced in Australia are exported or sold domestically. The export regime is a co-regulatory arrangement, and the domestic regime is touched relatively lightly by regulation, so that market demand, rather than regulation, drives certification.

Products labelled as organic and exported from Australia must by law be certified by a certifier accredited by the Australian Government. By contrast, certification is voluntary for Australian products sold as organic on the domestic market, though organic products sold domestically often are certified. Whether certified or not, organic claims made about products on the domestic market must comply with Australia's consumer protection laws, which prohibit deceptive and misleading labelling.

There are five accredited certifiers in Australia (down from six the previous year): AUS-QUAL, Australian Certified Organic (ACO), Bio-Dynamic Research Institute (BDRI), National Association for Sustainable Agriculture Australia (NASAA) Certified Organic (NCO), and Organic Food Chain (OFC). These certifiers must certify exported organic produce to either the official export standard (called the *National Standard for Organic and Bio-Dynamic Produce*), or to their own standard, as long as it complies with the minimum requirements of the National Standard. The National Standard and accreditation of certifiers is overseen by the Organic Industry Standards and Certification Council (OISCC). Compliance with the National Standard does not guarantee the exported product complies with the organic labelling laws of an importing country, nor with the specifications of particular markets in other countries. For this reason, some certifiers have developed their own standards that not only

comply with the National Standard but also provide additional market access for their clients.

Where producers or traders in the domestic market desire certification, they usually choose the certification mechanism established for the export regime (i.e. using the government-accredited certifiers certifying to the National Standard or their own compliant standards). Thus, according to submissions to a recent government review (Australian Government 2018), the export certification pathway has become the de facto domestic certification pathway. An added complexity in the domestic arena is that an alternative voluntary standard exist – called AS 6000 – based on the National Standard, but managed by Australia’s official standards organization, Standards Australia. To date, this standard has not been used as a certifying standard in the domestic supply chain, but is used to enforce Australia’s consumer protection laws in the case of deceptive and misleading organic claims.

2017 and 2018 saw much discussion of the regulatory framework. The Australian Government undertook a review of the export arrangements, commissioning a consultation paper from Deloitte and received 75 submissions from farmers, industry groups, importers, exporters and others. Simultaneously, Organic Industries of Australia – an association of some of the major organics organizations in Australia – commissioned a consultation paper on options for industry leadership. In February 2018, a major organic industry conference – the ‘Love Organic’ symposium – included a dedicated forum on ‘setting the strategic direction for a single representative industry body’.

Reform of the regulatory framework remains a work in progress, with discussions revolving around four issues: harmonizing the export and domestic regimes; rationalizing the overarching standard for organics in Australia; devising efficient processes for negotiating access to international markets and harmonizing local standards with international standards; and resolving the institutional structures for overseeing labelling, standards and certification.

Research

It has been a major achievement for the organic sector in Australia to see the establishment of the Centre for Organics Research at Southern Cross University. The Centre has recruited renowned international organic researcher Professor Carlo Leifert as its director, who presented the keynote address at the Centre’s inaugural Organics Research Workshop in November 2017. The organic sector in Australia has long suffered from the lack of a dedicated research agency. In general, data on organics throughout the supply chain remains a constraint on planning and investment, as well as research. Australia’s varied, and in some senses challenging production environment invites a number of research questions, which the new Centre is addressing. Australian production systems are characterised by large physical distances, requiring scale in production, as well as in processing and logistics, for cost control. Separate supply chains for organics therefore operate at

high cost, which is a challenge for producers and foreshadows the need for research into the collection and distribution systems.

References

- Australian Government (2016): National Standard for Organic and Bio-Dynamic Produce – Edition 3.7. Available at <http://www.agriculture.gov.au/export/controlled-goods/organic-bio-dynamic/national-standard>
- Australian Government (2018) Organic export orders review – Feedback summary. Available at <https://haveyoursay.agriculture.gov.au/organic-orders-review>
- Australian Organic (2018): Australian Organic Market Report 2018. Australian Organic, Nundah, www.austorganic.com
- Deloitte (2017): Organic Orders Review - Consultation paper for the Australian Department of Agriculture and Water Resources, Canberra, December. Available at <https://haveyoursay.agriculture.gov.au/organic-orders-review>
- Home, Robert, Catherine Gerrard, Corinna Hempel, Michal Lošťák, Anja Vieweger, Jakub Husák, Matthias Stolze, Ulrich Hamm, Susanne Padel, Helga Willer, Daniela Vairo and Raffaele Zanolli (2017): The quality of organic market data: providing data that is both fit for use and convenient. 7(2) Organic Agriculture, 141.
- Jones, Rebecca (2010): Green Harvest: A History of Organic Farming and Gardening in Australia. CSIRO Publishing.
- Lawson, Andrew, Andrew Monk, and Amy Cosby (2018): Australia. In: Willer, Helga and Julia Lernoud (Eds.) (2018): The World of Organic Agriculture. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn. Available at <https://www.organic-world.net/yearbook/yearbook-2018/pdf.html>
- OISCC (Organic Industry Standards and Certification Council) website: <https://oiscc.org/about-us/>
- John Paull (2008): The Lost History of Organic Farming in Australia. 3(2) Journal of Organic Systems 2.
- Paull, John (2013) A History of the Organic Agriculture Movement in Australia,' in B Mascitelli and A Lobo (Eds.), Organics in the Global Food Chain. Connor Court Publishing, 37.
- Policy Partners (2017): A Proposed Roadmap for Australia's Organic Industry – Considering Options for the Leadership of the Industry. Consultation paper prepared for Organic Industries. Available at <https://organicindustries.com.au/index.php/ConsultationPaper>

Milestones of the History of Organics in Australia

Date	Milestone
1938	First documented conscious organic/BD activity identified when Bob Williams presents the first public lecture on biodynamics in Australia at the home of Walter Burley and Marion Mahoney Griffin.
1944	Australian Organic Farming and Gardening Society (AOFGS) founded - the first organic advocacy association in Australia and first formal use of 'Organic' in an organisation (worldwide).
1946-54	Publication of the Organic Farming Digest (renamed Farm & Garden Digest) is the second worldwide publication to use the term organic in the title (first being Rodale magazine).
1946	The Living Soil Association of Tasmania founded.
1953	Publication of 'Life from the Soil', by Col. Harold White and Prof. Cedric Stanton Hicks, first Australian book describing organic farming.
1957	Biodynamic Agricultural Association of Australia (BDAAA) founded.
1965	Soil Association of South Australia (SASA) formed.
1967	Bio-Dynamic Research Institute (BDRI) formed. Begins to offer BD certification.
1970s	SASA sponsors development of organic standards, labelling and certification by Organic Food Movement (OFM). Short-lived, but is the first attempt at organic certification in Australia.
1978	Bill Mollison and David Holmgren publish Permaculture One.
1984	SASA holds first scientific conference on organic agriculture in the Southern Hemisphere.
1986	National Association for Sustainable Agriculture Australia (NASAA) begins to offer organic certification in 1987.
1988	Biological Farmers of Australia (BFA) registered (later becomes Australian Organic Ltd).
1989	First PhD on the economics of organic agriculture in Australia (Dr Els Wynen, La Trobe University, Melbourne).
1991-92	National Standard implemented for Government Accreditation of organic export (updated 1998, 2002, 2005, 2015, and 2016).
1992	NASAA launches input certifications.
1992-96	AUS-QUAL accredited as an export certifier (92) followed by Organic Food Chain (OFC) in 96 (first Australian privately owned certification bodies).
1996	NASAA (and KRAV) becomes first certification organisation(s) to receive IOAS accreditation.
1997	First national organic funding program (Rural Industries Research and Development Corporation). Abandoned in 2012 on the grounds that organic agriculture was now a 'mature industry'.
1998	Organic Federation of Australia (OFA) founded.
2000	The World of Organic Agriculture yearbook reports Australia has the world's largest area under certified organic management (and every year since).
2005	15 th IFOAM Organic World Congress held in Adelaide.
2006	NASAA receives first Australian NOP accreditation.
2006	Journal of Organic Systems established.
2009	Organic Industry Standards and Certification Council (OISCC) established to oversee standards and certification for both domestic and export market.
2009	Standards Australia releases Australian Standard AS 6000, a voluntary Australian Standard for Organic and biodynamic products.
2009	OTARE founded (Organic Trust Australia - Research and Education).
2017	Certified organic area covers over 35 million hectares or about 10% of Australia's agricultural lands, involving 1'998 producers, 1'432 processors, and 598 handlers, valued at about 2.4 billion Australian dollars.
2018	Centre for Organics Research formed at Southern Cross University. First chair of organic agriculture at an Australian University.
2018	Organic Industries Australia OIA established as a peak body replacing OFA.

Compiled by OTARE (Organic Trust Australia – Research and Extension) and Andrew Lawson. Sources: Paull 2008, 2013; Jones 2010; World of Organic Agriculture yearbooks 2000-2019; OISCC; Australian Organic Market Report 2018.

Australia: Organic Agriculture in 2010/11 and 2015/16¹

Els Wynen²

In 2010/11, the Australian Bureau of Statistics (ABS) included organic agriculture in its census, and again in 2015/16. In this paper, the progress of the Australian organic world between those two years is summarised both for land-use and for farm-gate values. In addition, some background information is provided for crop area, organic production and prices paid to producers.

Organic farmland and land use

Table 77 shows that the growth of “land mainly used in agricultural production” on properties with organic production occurred in particular in “other land,” that is, in unimproved pasture. This category, including mainly extensive grazing areas, grew 2.5-fold between 2010/11 and 2015/16 and comprised 91 percent of the total organic farmland in 2015/16 – up from 88 percent in 2010/11. The main commodity produced on unimproved pasture is beef. Looking at cropland on organic properties, we see that it was 16 percent less in 2015/16 than in 2010/11.

Table 77: Australia: Land use in organic agriculture in different years

	2010/11		2015/16		Change
	Hectares	% of total	Hectares	% of total	%
Total area of holdings	11'833'915	100%	28'876'574	100%	144%
Land mainly used for agricultural production	11'439'212	97%	27'511'047	95%	140%
Crops	200'197	2%	169'087	1%	-16%
Forestry plantation	4'482	0%	4'299	0%	-4%
Total grazing	11'233'816	95%	27'324'242	95%	143%
improved pasture	851'710	7%	941'040	3%	10%
unimproved pasture	10'382'107	88%	26'383'202	91%	154%
Other agricultural purposes	716	0%	647'074	2%	N/A

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018). Please note that the data shown in this table are not always the same as those shown in other parts of this book, as the data sources are not the same

Of the area under broadacre crops,³ wheat (the main cereal crop) decreased the most, to a bit over half of that in 2010/11 (Table 78). Also, barley (the second most important cereal crop) decreased its acreage by almost a quarter while the oat area increased

¹ This article is an excerpt from Working Paper 2019-1 published by Organic Trust Australia – Research and Education, accessible on <http://www.organictrustaustralia.org.au>.

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³ In Australia, broadacre is the term for land suitable for large-scale crop production.

marginally. The decrease in area under these crops is due partly to a change in water policy in Australia, making it attractive to some farmers using irrigation (including some large organic farms) to sell their land. However, 2015/16 was also a dry year. Grain farmers, who usually don't use irrigation, are more likely to suffer from adverse weather conditions than fruit and vegetable growers. In addition, grain producers also struggle with issues such as nutrients and weeds, making some conventional grain growers more hesitant to convert. Fruit production area (other than grapes) increased somewhat (12 percent), but the most significant increase in area was seen on properties with mainly vegetables (40 percent).

Table 78: Australia: Crop area in different years

	2010/11 [ha]	2015/16 [ha]	Change 2015/16 - 2010/11 [ha]	Change 2015/16 - 2010/11 [%]
Area mainly used for crop ¹	200,197	169'087	-31'110	-16%
Crops - total	109'583	94'981	-14'602	-13%
Crops - broadacre	95'010	64'866	-30'144	-32%
Wheat	44'366	24'759	-19'606	-44%
Barley	10'505	8'215	-2'290	-22%
Oats	8'013	8'319	306	4%
Fruit – excl. grapes	4'093	4'567	473	12%
Grapes – total	4'079	5'783	1'704	42%
Grapes – wine	3'970	4'895	925	23%
Grapes - other	110	888	779	711%
Vegetables	2'779	3'902	1'123	40%

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018)

Production volumes

Production volumes for some commodities decreased between 2010/11 and 2015/16 (Table 79).

Table 79: Australia: Production of selected commodities in different years

Commodity	Unit	2010/11	2015/16	Change	% change
Wheat	Metric ton	79'707	37'864	-41'843	-52%
Barley	Metric ton	18'204	17'024	-1'180	-6%
Oats	Metric ton	12'392	7'108	-5'284	-43%
Grapes for wine	Metric ton	48'743	56'140	7'398	15.2%
Cattle - meat	No.	340'387	803'140	462'753	136%
Sheep and lamb	No.	859'823	725'180	-134'643	-16%
Dairy cattle	No.	12'554	15'394	2'840	23%

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018)

¹ This category refers to land that can be used for crops, but these areas are not necessarily used every year.

The decrease in the production of wheat between 2010/11 and 2015/16 is quite in line with the decrease in wheat production area. For barley, however, almost as much barley was produced in 2015/16 as in 2010/11 despite a decrease of almost one quarter in the area under barley. For oats, the period saw a decrease of 22 percent in the production volume, despite having a similar area in 2010/11 and 2015/16.

For the livestock sector, the values represent the production capacity (that is, stock on the farm in that year) rather than actual production. The biggest increase was seen in beef, which increased by 136 percent between 2010/11 and 2015/16. The only decrease was in sheep and lamb production, which dropped by 16 percent. Organic dairy grew moderately compared to beef but still showed a 23 percent increase in numbers of milkers and dry cows.

Value of Agricultural Commodity Production (VACP)

In 2015/16, the Value of Agricultural Commodity Production (VACP)¹ or farm-gate value of organic production was estimated at well over 1.1 billion Australian dollars² (see Table 80), well over two times the value estimated five years earlier (446 million Australian dollars), in 2010/11.

In the crop sector, growth between the two years was recorded in particular in fruit and vegetables. Over half of the increase was generated by the beef sector (cattle and calves). Also, poultry and eggs (in the livestock sector and the livestock products sector, respectively) showed a remarkable growth rate in those five years, albeit less in absolute figures, due to starting from a considerably lower base. However, industry sources estimate that the returns are considerably lower for both of these sectors than ABS does (see footnote 1).

Farm-gate value is dependent on production, which is also dependent on area under crop or grazing land, which decreased by 3 percent, from 0.20 to 0.17 million hectares (see Table 78).

Changes in VACP are also influenced by product prices, both conventional and organic. As an increase in either of them between the two years of comparison can give rise to perceived growth in a sector (even when there is no growth in production), it is also important to look into these two factors to determine real growth.

¹ ABS calculates the VACP by multiplying total production – obtained by the census – by market prices. This can create problems in those industries where the whole farm is not under organic management. Grapes for wine, poultry and egg industries are especially implicated here.

² In 2017 (average exchange rate), 1 Australian dollar corresponded to 0.68 euros according to the European Central Bank.

In crops, the price index showed little change in conventional prices between the two years (5 percent), although there is a rather large difference between grain (13 percent increase) and fruit (11 percent decrease). For fruit, the decrease in conventional prices is more or less neutralised by the increase in organic premiums. This contrasts with the contributions of vegetables, which remained similar, with only small conventional price increases, and small premium increases. This, of course, is only true for the group of vegetables as a whole, and possibly not so for individual kinds of vegetables.

By far the greatest effect of these two forces is on beef, for which the conventional price index indicated a price increase of 46 percent, while the premium percentage stayed similar (which means that it also increased substantially in absolute terms). This means that a large part of the increase in farm-gate value for beef was due to increases both in conventional price and in organic premiums. Changes in both the conventional prices and organic premiums were small for other commodities in 2015/16, so they didn't change the general picture for productivity or otherwise.

Table 80: Australia: Farm-gate value and growth rate in different years: main organic sectors

Commodity	Farm-gate value 2010/11	Farm-gate value 2015/16	Change	Annual compound growth rate
	Million Australian dollars	Million Australian dollars	%	%
Total crops	283	372	31	6
- Cereals for grain	38	51	34	6
- Vegetables	63	91	44	8
- Fruit (incl. grapes for wine)	130	188	44	8
- Other	51	42	-17	-4
Total livestock	118	658	459	41
- Cattle and calves	81	479	488	43
- Sheep and lambs	14	15	7	1
- Poultry	14	139	864	57
- Other	8	25	221	26
Total livestock products	45	119	164	21
- Milk	41	56	36	6
- Eggs	4	63	1'498	74
Total crops and livestock	446	1'149	158	21

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018).

Conclusion

In other words, it is clear that there was growth in organic agriculture in Australia in the first half of the 2010s, though there is a large difference between the commodities. There is more total area under certified organic management, but less under organic cropping (or more-intensive industries than on pastoral properties). The total farm-

gate value of organic production has also increased (even excluding the beef industry), mainly due to vegetables and fruit, and poultry and egg production.

In summary, the farm-gate value in Australia grew from 446 to 1'149 million Australian dollars between 2010/11 and 2015/16, or 158 percent. This is an annual compound growth rate of 21 percent.

It makes sense, however, to split the extensive beef sector from the more intensive cropping-livestock sector. In the former, certification is often obtained for marketing reasons, as the management is close to being organic anyway, and in the latter, a thorough change in management is often needed before certification can be obtained.

The extensive beef sector experienced a six-fold increase between 2010/11 and 2015/6, which is an annual compound growth rate of 43 percent. For the more intensive sector, the farm-gate value showed an annual compound growth rate of 13 percent. However, if the ABS data for grapes for wine, poultry and egg production (the three sectors that create problems for accurate measurements of organic production) is replaced with rough estimates from the industry, then the figures are reduced to less a than 10 percent annual compound growth rate.

References

- ABARES (Australian Bureau of Agricultural and Resource Economics and Sciences) (2017): Agricultural commodity statistics. ABARES, Canberra. Available at <http://www.agriculture.gov.au/abares/research-topics/agricultural-commodities/agricultural-commodities-trade-data#2017>
- ABS (Australian Bureau of Statistics) (2011) Value of Agricultural Commodities Produced, Australia, 2010-11. ABS, Canberra. Available at <http://www.abs.gov.au/Ausstats/abs@.nsf/0/3EA331A8BCD9ADD3CA257B7B00125D00?OpenDocument>
- ABS (2016) Agricultural Commodities, Australia, 2015-16. ABS, Canberra. Available at <http://www.abs.gov.au/Ausstats/abs@.nsf/0/C2BEAD6A7DB33E86CA2582910013A993?OpenDocument>
- ABS (2016) Customised report.
- ABS (2018) Customised report.
- AOL - Australian Organic Ltd. (2018): Australian Organic Market Report 2018. Australian Organic Ltd., Nundah. Available on: https://austorganic.com/wp-content/uploads/2018/04/AustOrganicMarketReport2018_spreads_digital.pdf.
- Wynen, E. (2016) 'Improving the measurement of the value of organic production in Australia', OTARE Policy Paper No 1601 (available on: http://www.elspl.com.au/OrgAg/4-OA-Pubs/4-OA-Publications/Pub-A-FP/OA-FP-A26-OTARE-Policy%20Paper_No_1601-July2016.pdf).
- Wynen, E. (2019): Organic agricultural production in Australia: 2010-11 and 2015-16. OTARE Research Paper No 1901. January 2019. Organic Trust Australia - Research and Education (OTARE), accessible at http://organictrustaustralia.org.au/sites/default/files/RP-ABS-2010-11_2015-16.pdf

The Pacific Islands

KAREN MAPUSUA¹

Recent developments

Regional and national agencies and development partners increasingly recognized the value of organic agriculture as a development tool for the Pacific Islands context. Of the 38 current agriculture policy documents across the Pacific region, 18 refer to organic agriculture. Innovations such as the Pacific Organic Tourism and Hospitality Standard and the online Pacific Organic Policy Toolkit are attracting interest from organic farmers through to policymakers. Successes and lessons learned from past projects are being incorporated into programmes to upscale activities, like PGS development, and are being recognized as providing a platform for social development including women's and youth economic empowerment.

The Pacific Organic Tourism and Hospitality Standard

The organic movement and members of the hospitality industry currently involved in organic farm-to-table projects called for a brand or identifier they can use to promote their use of organic produce. In order to meet this need, the Pacific Organic Tourism and Hospitality Standard (POTHS) was developed in 2016 with the assistance of the European Union Pacific Agriculture Policy Project (PAPP). The POTHS and the accompanying guarantee system can be applied to menu items, food/catering providers or whole destinations. The POTHS aligns with the standards and requirements of the Pacific Organic Standard (POS). The POTHS will enable tourism operators to procure fresh and value-added products through a certified organic value chain. If compliant with other environmental and social standards, operators will qualify to be certified under the Pacific Organic Standard and use the "Organic Pasifika" mark in their branding and marketing.

POTHS pilots with tourism operators were established with the assistance of the International Fund for Agricultural Development (IFAD), the Sustainable Development Goals Fund (SDGF), and United Nations Development Programme (UNDP) in Vanuatu and Fiji during 2017. Compliant menus have been developed with support of celebrity chef, author and TV presenter Robert Oliver.² Due to resource constraints, inspectors have not yet been trained to conduct inspections under the POTHS, which has led to delays in the certification process.

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² For more information see <http://robertoliveronline.com>.

Participatory Guarantee Systems

Interest in Participatory Guarantee Systems (PGS) in the Pacific Islands continued to expand through 2017 as market opportunities for PGS-certified products evolved, and examples were generated of how organic and PGS can be tools for holistic and sustainable social and economic development. In 2013, the Pacific Organic and Ethical Trade Community (POETCom) with support from the International Fund for Agricultural Development (IFAD) began developing models for PGS tailored to the diverse situations of Pacific organic growers. Building on experience from the first two Pacific PGS, BioCaledonia (New Caledonia) and BioFetia (French Polynesia), three pilot PGS were established in Fiji and Kiribati focusing on specific products (virgin coconut oil, coco sap sugar, and papaya).

A PGS training package has been developed, which is now being utilised to assist further development.

PGS in the Pacific include wild harvest systems, the conversion of whole islands, as well as more traditional grower groups. Respect for traditional authorities (chiefs) is strong in the Pacific Islands, and in some cases traditional village or island governance systems have been embraced to provide support to the guarantee system. Processing and value-adding operations are also certified through the PGS process. This has created a need to provide considerable training to PGS, which include processing to manage the more complex inspection requirements. At this point, certification of processor PGS is only provided in countries, where there are multiple processors to allow PGS processors to peer review across the PGS groups.

A unique aspect of PGS in the Pacific is the regional PGS mark “Organic Pasifika Guaranteed.” A PGS can apply to POETCom to be licensed to use this mark, which facilitates recognition of organic products on the local market and across the 22 Pacific Island countries and Territories, thus easing intra-regional trade in organic products. This trade is in its infancy, but already small quantities of organic products, such as forest nuts, virgin coconut oil, and coffee are being exported to other Pacific Island countries for their developing organic markets. Currently, ten PGS are approved to use the Organic Pasifika mark, and a further two are under development.

Some PGS are seeking to become third-party certified due to interest in their products from countries with organic regulations.

Third party certification

Third party organic certification continues to grow slowly. Each year shows some withdrawals from certification and some new licensees. For some growers of long-term crops, such as coconuts, devastation by tropical cyclones makes maintaining certification through the recovery period uneconomical. Generally, costs remain high, and in some cases prohibitive for smallholder family farms. A proportion of the costs relate to travel expenses, as inspectors have to fly in, usually from Australia or New Zealand. Often, due to flight logistics, geographic spread, or locations of grower

groups, inspectors are required to stay on the island for a considerable amount of time. We are also beginning to see an increase in the number of certifying bodies active in the region, and services are now also provided by certifiers from countries such as Singapore, Korea, and China. In 2015, the Pacific Organic and Ethical Trade Community (POETCom) initiated training for organic inspectors based in the Pacific islands with trainees from seven Pacific Island countries. Training was delivered by the International Organic Inspectors Association together with the National Association of Sustainable Agriculture Australia (NASAA) and with support from the certifiers Biogro and Bioagricert. The aim is to build a pool of locally-based inspectors that POETCom's partner certifying bodies can contract to undertake inspections on their behalf reducing travel costs to operators. Lack of resources has constrained training of new inspectors.

Market and trade

Most of the organically certified products from the region are for export. However, there are indications of growing local markets through basket (box) schemes, unverified organic claims on labels, PGS development, organic stands at farmers markets, and increased awareness. As yet, however, there are no mechanisms for collecting local organic market data.

Table 81 lists the main organic certified products in the Pacific region.

Table 81: Pacific region: main organic certified products

Products	Countries
Vanilla, ginger & other spices	Fiji, Vanuatu, Niue, Samoa
Cocoa	Vanuatu, Samoa, PNG
Virgin coconut oil	Samoa, Fiji, Solomon Islands, Tonga, Vanuatu
Copra oil	Samoa, Vanuatu
Coconut meal	Vanuatu
Nonu /noni (<i>Morinda Citrifolia</i>)	Cook Islands, Samoa, Fiji, Niue, French Polynesia
Honey	Niue
Bananas (including processed)	Fiji, PNG, Samoa
Coffee	PNG, Samoa, Fiji, Vanuatu
Livestock (beef, goats, and sheep)	Vanuatu, Fiji
Fruit & vegetables (including processed)	Fiji, New Caledonia, Samoa, French Polynesia
Rum	French Polynesia
Forest nuts	Solomon Islands

Generally, the domestic markets for certified organic products are slowly developing. Organic products are commonly sold as conventional without premium price or any acknowledgment of the organic status of the product.

Some initiatives are ongoing or are in the pipeline to promote consumer awareness about organic products, in particular in linking the concept of organic with local food consumption as part of strategies to reduce non-communicable diseases, which are a major health issue in the Pacific Islands. However, organic farmers markets have

begun to emerge. Niue and Samoa hold regular markets, and Fiji recently opened its first dedicated organic and sustainable products store.

Interesting opportunities are now being explored within the tourism structures of several countries that have larger tourism industries (e.g., Fiji, Vanuatu, Cook Islands, and Samoa). These industries are focusing on the development of Pacific cuisine and are linking smallholder organic farmers directly with tourism and hospitality providers. There are now several upmarket island-based resorts in Fiji that have their island organically certified and which commit to serving guests organic produce from their land. The development of the Pacific Organic Tourism and Hospitality Standard (POTHS) is expected to support growth in domestic markets in coming years. The growth in interest in PGS in several countries also implies that there is an opportunity for further development of domestic markets, and the acceptance of PGS certification across the region has stimulated initial regional trade in organic goods.

Legislation

In recent years, governments in the region have approached the Pacific Organic and Ethical Trade Community (POETCom) for advice on assisting the growth of organics. In 2016, POETCom partnered with IFOAM – Organics International to develop an online Pacific Organic Policy Toolkit, which is now available. The Government of Vanuatu utilized the toolkit to develop a national policy with the objective for Vanuatu to be 100 percent Organic by 2020. The policy development process is now underway in Fiji with an initiative led by the organic movement and supported by the Ministries of Agriculture and Trade Tourism and Industry. The Government of Samoa is discussing legislation.

Government and international support

The Secretariat of the Pacific Community (SPC), as a regional intergovernmental organization, continues to provide support for the development of the organic sector and now houses the secretariat of the Pacific Organic and Ethical Trade Community (POETCom). However, as current project funding cycles come to an end, the need to bridge financing and develop a longer-term financing strategy to support the organic movement is critical.

POETCom needs to identify opportunities to utilize the benefits of organic agriculture to address broader social and economic development issues, such as youth unemployment, with the International Fund for Agricultural Development (IFAD). It has commenced a new partnership with the Australian Department of Foreign Affairs and Trade (DFAT) to support the economic empowerment of women through developing organic value chains.

POETCom national affiliates continue to receive assistance from partners such as OXFAM New Zealand, Canada Fund, UNDP small grants programmes and bilateral donor assistance from Australia and New Zealand. In a few cases, national governments also provide financial support for organic certification costs as in the

case of Samoa, Tonga, and Niue, where the national governments cover certification fees for large national grower groups.

Outlook

Sustainable resourcing for the secretariat and core services of the Pacific Organic and Ethical Trade Community (POETCom) presents a challenge. Since 2016, the coordinator's role in POETCom has been unfunded. However, in 2019 this position will be supported by the Australian Department of Foreign Affairs and Trade (DFAT) and the Secretariat of the Pacific Community (SPC). This support will enable POETCom to focus on strengthening the Pacific Organic Guarantee System and building membership services. As governance and management structures are strengthened and with the implementation of the Pacific Organic Guarantee System (in particular, the elements of PGS), the export certification scheme and regional organic branding, growth and momentum are likely to continue. The European Development Fund will support a full review of POETCom and assist in designing and developing cost recovery mechanisms for services in 2019.

Growing understanding of the role and potential of organic agriculture in climate change adaptation will provide a basis for incorporating organics as a development tool in Pacific agriculture and climate change policy. However, financial support will be required to undertake the necessary trials and demonstrations required for farmers and policymakers to widely adopt organic agriculture.

There is also an expectation that the local market for organic products will start to expand as the tourism and hospitality industries start to look towards organic and sustainability as part of the Pacific Islands' brand.

Links/Further reading

- Pacific Organic and Ethical Trade Community: www.organicpasifika.com
- Pacific Organic Standard: <http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POS.pdf>
- Growing Our Future: POETCom Strategic Plan 2013 – 2017: <http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POETCom-Strategic-Plan.pdf>
- POETCom Annual Reports: <http://www.organicpasifika.com/poetcom/who-are-we/annual-reports/>
- Pacific Organic Policy Toolkit: <http://www.organicpasifika.com/pasifikapolicytoolkit/>

Milestones of the Development of Organics in the Pacific Islands

Year	Milestone
Late 1990s	First 3 rd party certified producers – Fiji, Samoa, and Papua New Guinea.
2003	Foundation of the Pacific Organic Producers Association.
2005	First Pacific Delegates attend the Organic World Congress in Adelaide, Australia.
2006	IFOAM and IFAD initiate project to develop Pacific Organic Standard (POS).
2006	Pacific Community, with IFAD assistance, establish Regional Organic Task Force (ROTF) to provide stakeholder input to development of POS.
2008	POS accepted by the Pacific's leaders (Prime Ministers and Presidents) at the Pacific Island Forum Leaders meeting in Niue.
	Heads and Ministers of Agriculture and Forestry Services in the Pacific officially endorse the POS as the regional organic standard.
2009	ROTF decides to form permanent body as the Pacific Organic and Ethical Trade Community.
2009	First PGS in the Pacific.
	BioCaledonia in New Caledonia established and licensed to use the Organic Pasifika Mark.
2010	Pacific Community agrees to host POETCOM secretariat.
2012	POETCom secretariat established in the Pacific Community, Fiji.
	First POETCom General Assembly in French Polynesia.
	Heads and Ministers of Agriculture and Forestry services delegate management of the POS and the Pacific Organic Guarantee Scheme.
2014	Cicia Island in Fiji becomes first organically certified (PGS) island in the Pacific.
2015	Pacific Organic Standard (POS) accepted into the IFOAM Family of Standards.
2016	Pacific Organic Tourism and Hospitality Standard (POTHS) completed.

Compiled by Karen Mapusua, Pacific Community (SPC),

Oceania: Current statistics

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In 2017, the organic agricultural land in Oceania was 35.9 million hectares, which constituted 8.5 percent of the total agricultural area in the region. Half of the world's organic agricultural land is in Oceania. The area under organic production has increased six fold since 2000 (5.3 million hectares). Between 2016 and 2017, the area in Oceania grew by over 8.5 million hectares – 31 percent more - mainly due to a large growth of the organic agricultural area in Australia. However, further countries, such as Samoa (more than 43'000 hectares more, nearly 68 percent) and Vanuatu (over 3'000 hectares more, 26.2 percent growth) showed an important growth. The country with the biggest organic agricultural area is Australia with 35.6 million hectares, and the highest organic share of total agricultural land is in Samoa, with 37.6 percent of all farmland under organic cultivation, followed by Australia with 8.8 percent.

Land use

It is estimated that in 2017, nearly 97 percent of all organic farmland in Oceania was grassland/grazing areas (34.9 million hectares, mainly in Australia). Detailed data on crop was not available for Australia, the country with the largest area. However, it was available for all other countries. From the available data, we can assume that permanent crops play an important role in the Pacific region. Coconuts is the largest grown commodity (almost 135'000 hectares, 25 percent of the total region's coconut area) in the Pacific Islands, mainly for oil production. Furthermore, coffee (nearly 14'000 hectares, 25 percent of the total coffee grown in the region) are also largely grown.

Producers

There were almost 27'000 organic producers in the region, with the largest number of producers in Papua New Guinea (almost 12'800 producers), Vanuatu (over 3'800 producers), and Samoa (over 2'000 producers). Since 2006, when data for most of the countries became available, their number has more than trebled.

Market

For 2017, the total organic market was almost 1.3 billion euros for the region. Australia reported an organic market of 1.1 billion euros and New Zealand retail sales value 155 million euros. For the other countries in the region, no data is available. The annual organic consumption was 47 euros per person in Australia and 33 euros per person in New Zealand.

For more information, see the data tables on page 294.

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Organic Agriculture in Oceania: Graphs

Oceania: Organic agricultural land by country 2017

Source: FiBL survey 2019

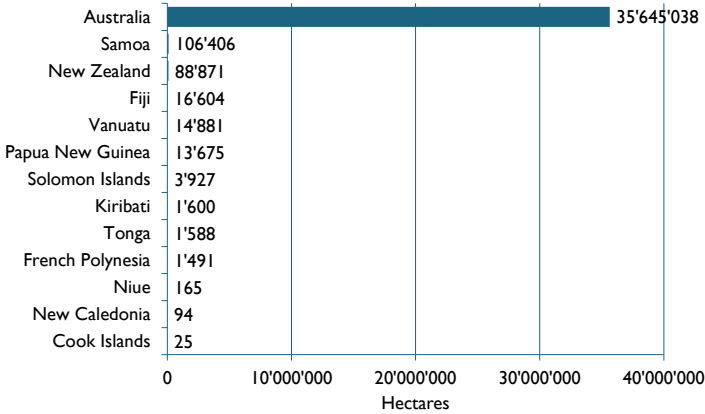


Figure 101: Oceania: Organic agricultural land by country 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Oceania: Organic share of total agricultural land by country 2017

Source: FiBL survey 2019

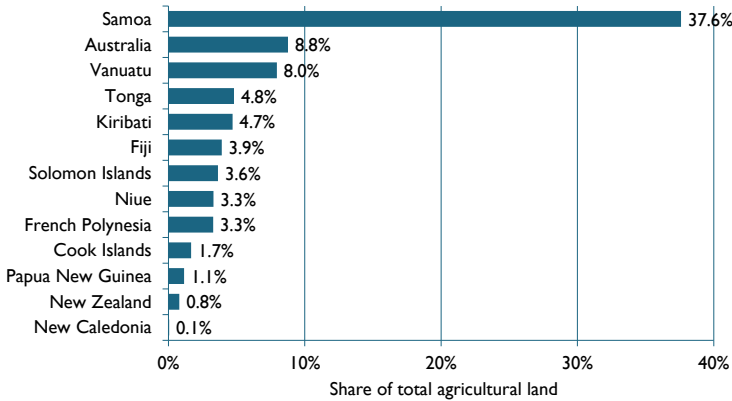


Figure 102: Oceania: Organic share of total agricultural land by country 2017

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Oceania: Development of organic agricultural land 2000-2017

Source: FiBL-IFOAM-SOEL-Surveys 2002-2019

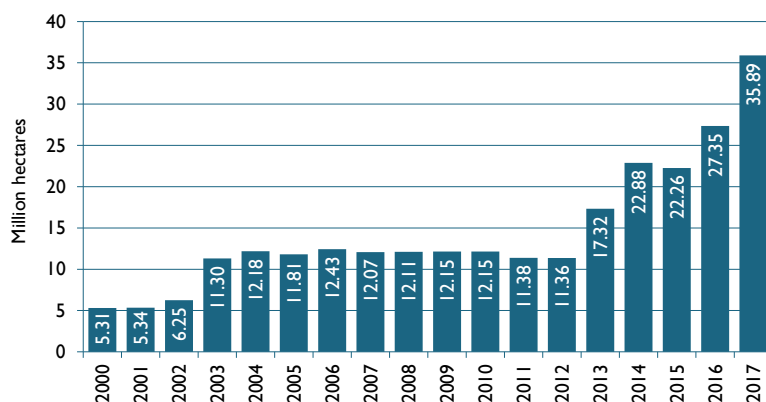


Figure 103: Oceania: Development of organic agricultural land 2000-2017

Source: FiBL-IFOAM-SOEL 2000-2019; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Organic Agriculture in Oceania: Tables

Table 82: Oceania: Organic agricultural land, organic share of total agricultural land, and number of producers 2017

Country	Area [ha]	Share of total agr. land [%]	Producer [no.]
Australia	35'645'038	8.8%	1'998
Cook Islands	25	1.7%	20
Fiji	16'604	3.9%	1'627
French Polynesia	1'491	3.3%	25
Kiribati	1'600	4.7%	900
New Caledonia	94	0.1%	94
New Zealand	88'871	0.8%	876
Niue	165	3.3%	27
Papua New Guinea	13'675	1.1%	12'749
Samoa	106'406	37.6%	2'053
Solomon Islands	3'927	3.6%	1'213
Tonga	1'588	4.8%	1'364
Vanuatu	14'881	8.0%	3'804
Total	35'894'365	8.5%	26'750

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Table 83: Oceania: All organic areas 2017

Country	Agriculture [ha]	Wild collection [ha]	Total [ha]
Australia	35'645'038		35'645'038
Cook Islands	25		25
Fiji	16'604	653	17'257
French Polynesia	1'491	4	1'496
Kiribati	1'600		1'600
New Caledonia	94		94
New Zealand	88'871		88'871
Niue	165	112	277
Papua New Guinea	13'675		13'675
Samoa	106'406		106'406
Solomon Islands	3'927		3'927
Tonga	1'588		1'588
Vanuatu	14'881		14'881
Total	35'894'365	769	35'895'134

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 33 |

Table 84: Oceania: Land use in organic agriculture 2017

Land use	Crop group	Area [ha]
Agricultural land and crops, no details		74'106
Arable crops	Arable crops, no details	94
	Cereals	41'293
	Medicinal and aromatic plants	62
	Sugarcane	11
	Vegetables	3'905
Arable crops total		45'365
Cropland, no details		63'406
Other agricultural land		652'023
Permanent crops	Cocoa	1'936
	Coconut	134'965
	Coffee	13'819
	Fruit	4'567
	Fruit, tropical and subtropical	3'963
	Grapes	7'503
	Medicinal and aromatic plants, permanent	217
	Tea/mate, etc.	547
	Permanent crops, other	165
Permanent crops total		167'681
Permanent grassland		34'891'784
Total		35'894'365

Source: FiBL survey 2019, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 331

Achievements and Outlook

Milestones on the global organic path

LOUISE LUTTIKHOLT¹

IFOAM - Organics International promotes truly sustainable food production systems through the uptake of organic agriculture. Our strategy is based on the concept of Organic 3.0, which seeks to push organics and agriculture as a whole to the next level of sustainability. Therefore, it serves many of the Sustainable Development Goals (SGDs).

Organic 3.0 is based on what IFOAM – Organics International calls Organic 1.0, the founding work of the organic pioneers, and Organic 2.0, the formation of the organic movement, codification of standards and voluntary certification of operators according to private and/or public standards. This latter era gave birth to IFOAM – Organics International, and we are proud of the milestones that brought us to where we are today (see milestone list in page 322).

Despite these achievements, we must not become complacent. There is plenty of work to be done. Even with impressive growth, organic and agro-ecology still represent a small fraction of global agriculture. Biodiversity is dwindling; despite sufficient food production, hunger has not been eradicated; climate change is affecting us all. In short, humankind is trespassing the planetary boundaries, and agriculture is one of the main contributors.

With Organic 3.0, we have given ourselves the task of improving organic production systems, increasing the number of practitioners, hectares and consumers as well as moving all agriculture towards greater sustainability by creating a fair and conducive environment. As such, we have to come out of our niche and comfort zones. We need to reach out to those who do not yet speak our language; we need to speak clearly about the positive contributions of organic agriculture in new ways. We should build new partnerships and look out for the unusual suspects. Through this, agriculture can become part of the solution.

There are interesting examples and experiments in places like Sikkim in India, Austria, Denmark, Liechtenstein and parts of Switzerland (Grisson) and some parts of Egypt (Sekem farms), where the organic production area has passed a tipping point. We can learn from these experiences and be inspired by them. However, if we want to make a difference, governments in other parts of the world must follow suit.

When advocating for an increased and accelerated uptake of organic, we are guided by our roots and principles. Organic is embedded in local contexts, so it is not something to “scale up” - this is exactly the failure of chemical agriculture. Because

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farmers apply organic principles in different circumstances, replication and “scaling out” is the way to spread the organic method.

This publication on organic statistics and emerging trends is a proven tool to further the growth of the organic sector. Good data is the foundation for the development of any national organic strategy. Precise figures on the number of operators allow policy makers to better plan the type and amount of support needed. And for those active in the market, data on the size and potential increase in market share can guide business decisions. The 20 years of data tracking sector growth in ‘The World of Organic Agriculture’ demonstrate the potential of organic agriculture.

Preparations are underway for the Organic World Congress 2020 with the title “From its roots, organic inspires life”. It will bring the global organic sector back to France, where IFOAM – Organics International was founded in 1972. We will invite you to contribute to the discussion and thinking by providing your submissions in 2019. We want this Organic World Congress to be another milestone - a turning point towards a worldwide uptake of practices based on the principles of organic agriculture.

Milestones of IFOAM – Organics International

Year	Milestone
1972	IFOAM - The International Federation of Organic Agriculture Movements – is founded in Versailles, France, registered as FIMAB (Fédération Internationale des Mouvements d'Agriculture); the office is hosted by Nature et Progrès.
1973	First "Circular letter" of IFOAM comes out. By the end of 1976, 19 newsletters are published.
1974	At the second General Assembly of IFOAM, members meet at the Nature et Progrès congress in Paris.
1975	Nature et Progrès based in Sainte-Geneviève-des-Bois, just south of Paris, remains responsible for the secretariat, which is itself situated in La Feuillée, Brittany, France.
1976	A third General Assembly of IFOAM members takes place in Seengen, Switzerland (80 members), where it is decided to define organic farming with international standards and use only the English language.
1977	The IFOAM office is moved to Oberwil near Basel in Switzerland, hosted by the Research Institute of Organic Agriculture FiBL.
1977	1st IFOAM International Scientific Conference "Towards a Sustainable Agriculture" takes place in Sissach, Switzerland.
1978	IFOAM moves its office to Topsfield, Massachusetts, USA.
1980	The first version of the "Recommendations for international standards of biological agriculture" is accepted by the biennial IFOAM General Assembly in Brussels.
1982	The IFOAM recommendations become the "Standards of biological agriculture for international trade and national standards", with validity restricted to two years.
1982	The head office is moved to Grasse, in the South of France. Thanks to better financial support, a professional secretariat is funded from 1987.
1984	IFOAM membership exceeds 100 member organisations.
1986	IFOAM receives observer status at the UN department of information.
1986	The European Commission starts its work on the regulation of organic food production, and IFOAM is the logical counterpart.
1987	IFOAM hires its first Executive Director, and the office is moved to Tholey-Theley, Germany.
1990	The first Biofach organic trade fair is held, and the long-lasting partnership between IFOAM and Biofach begins.
1991	Council Regulation (EEC) 2092/91 on organic production is published, coming into force in 1993, which was welcomed by IFOAM. The Codex Alimentarius Commission, a joint FAO/WHO Food Standards Programme (with strong involvement of IFOAM as observer organizations), begins developing guidelines for the production, processing, labelling, and marketing of organically produced foods.
1992	IFOAM influences the UN Conference on Environment and Development in Rio de Janeiro.
1996	FAO organizes the first World Food Summit, with IFOAM participation; one year later, IFOAM is officially recognized as the global representative of the organic movement.
1997	IFOAM founds the International Organic Accreditation Service (IOAS).
1999	Codex Alimentarius approves the first plant production guidelines for organically produced food, significantly influenced by the IFOAM basic standards and Council Regulation (EEC) 2092/91 on organic production.
2001	Codex Alimentarius approves the first animal production guidelines for organically produced food, influenced by IFOAM basic standards and the EU regulation for organic livestock 1804/99.
2002	International IFOAM conference on Organic Guarantee Systems with FAO and UNCTAD.
2003	IFOAM moves offices to Bonn, the German UN city.
2005	The General Assembly adopts the principles of organic agriculture: health, ecology, fairness and care.
2007	IFOAM successfully challenges a patent on a fungicide derived from the seed of the neem tree.
2008	The General Assembly ratifies the definition of organic agriculture.
2016	The Sustainable Organic Agriculture Action Network (SOAAN) produces the Best Practice Guidelines, and the global organic movement discusses Organic 3.0.

Compiled by Louise Luttkholt, IFOAM – Organics International, Anton Pinschoff, Fédération Nationale d'Agriculture Biologique FNAB, Otto Schmid, Research Institute of Organic Agriculture FiBL

The IFOAM Organic World Congresses

Year	Venue	Theme	Proceedings
1977	Sissach (Switzerland)	Towards a sustainable agriculture	1st IFOAM International Scientific Conference (4th General Assembly)
1978	Montreal (Canada)	Basic techniques in ecological farming	2nd IFOAM International Scientific Conference (5th General Assembly)
1980	Brussels (Belgium)	The maintenance of soil fertility	3rd IFOAM International Scientific Conference (6th General Assembly)
1982	Boston (USA)	Global perspectives on agroecology and sustainable agriculture systems	4th IFOAM International Scientific Conference (7th General Assembly)
1984	Kassel-Witzenhausen (Germany)	The importance of biological agriculture in a world of diminishing resources	5th IFOAM International Scientific Conference (8th General Assembly)
1986	Santa Cruz (USA)	Global perspectives on agroecology and sustainable agriculture systems	6th IFOAM International Scientific Conference (9th General Assembly)
1988	Ouagadougou (Burkina Faso)	Agriculture alternatives and nutritional self sufficiency	7th IFOAM International Scientific Conference (10th General Assembly)
1990	Budapest (Hungary)	Socio-economics of organic agriculture	8th IFOAM International Scientific Conference (11th General Assembly)
1992	Sao Paulo (Brazil)	A key to a sound development and a sustainable environment	9th IFOAM International Scientific Conference (12th General Assembly)
1994	Christchurch (New Zealand)	People-ecology-agriculture	10th IFOAM International Scientific Conference (13th General Assembly)
1996	Copenhagen (Denmark)	Down to earth- and further afield	11th IFOAM International Scientific Conference (14th General Assembly)
1998	Mar del Plata (Argentina)	Organic agriculture: the credible solution for the 21st century	12th IFOAM International Scientific Conference (15th General Assembly) (available from IFOAM – Organics International)
2000	Basel (Switzerland)	The world grows organic	13th IFOAM International Scientific Conference (16th General Assembly)
2002	Victoria (Canada)	Cultivating communities	14th IFOAM International Scientific Conference (17th General Assembly)
2005	Adelaide (Australia)	Shaping sustainable systems	15th IFOAM Organic World Congress (18th General Assembly) 1st ISOFAR Scientific Conference at the 15th Organic World Congress
2008	Modena (Italy)	Cultivating the future	16th IFOAM Organic World Congress (19th General Assembly) 2nd ISOFAR Scientific Conference at the 16th Organic World Congress
2011	Gyeonggi Paldang (South Korea)	Organic is life	17th IFOAM Organic World Congress (20th IFOAM General Assembly) 3rd ISOFAR Scientific Conference at the 17th Organic World Congress (proceedings available on www.isofar.org)
2014	Istanbul (Turkey)	Building organic bridges	18th IFOAM Organic World Congress (21st IFOAM General Assembly) 4th ISOFAR Scientific Conference at the 18th Organic World Congress
2017	New Delhi, (India)	<i>An Organic World through an Organic India.</i>	19th IFOAM Organic World Congress (22nd IFOAM General Assembly) 5th ISOFAR Scientific Conference at the 19th Organic World Congress

Compiled by Urs Niggli and Helga Willer, Research Institute of Organic Agriculture FiBL

Annex

Key Indicators by Country and Region

Table 85: Organic agricultural land (including in-conversion areas): Key indicators by region 2017

Region	Organic area [ha]	Shares of the global organic farmland area [%]	Organic share of total farmland area [%]	Growth 2016-2017 [%]	Organic producers [no.]	Organic retail sales [Million €]
Africa	2'056'571	3%	0.2%	+14.1%	815'070	16*
Asia	6'116'834	9%	0.4%	+24.9%	1'144'263	9'601
Europe	14'558'246	21%	2.9%	+7.6%	397'509	37'341
Latin America	8'000'888	11%	1.1%	+7.0%	455'749	810
North America	3'223'057	5%	0.8%	+3.0%	19'017	43'012
Oceania	35'894'365	51%	8.5%	+31.3%	26'750	1'293
World**	69'845'243	100%	1.4%	+20.0%	2'858'358	92'074

Source: FiBL survey 2019. Note: Agricultural land includes in-conversion areas and excludes wild collection, aquaculture, forest, and non-agricultural grazing areas.

*Data from Ethiopia and Kenya. **Includes correction value for French overseas departments.

Table 86: Organic agricultural land, share of total agricultural land, number of producers, and retail sales by country 2017

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Million €]
Afghanistan	272	0.001%	2	
Albania	549	0.05%	61 (2014)	
Algeria	772	0.002%	64 (2016)	
Andorra	2	0.01%	1	
Argentina	3'385'827	2.3%	1'157	
Armenia	1'430	0.1%	36	
Australia	35'645'038	8.8%	1'998	1'138
Austria	620'764	24.0%	24'998	1'723
Azerbaijan (2015)	37'630	0.8%	305	3
Bahamas	49	0.3%	1	
Bangladesh	8'056	0.1%	9'337	
Belgium	83'510	6.4%	2'105	632
Belize (2016)	380	0.2%	820	0.1
Benin	18'928	0.5%	4'030 (2016)	
Bermuda		Processing only		
Bhutan	6'632	1.3%	4'295	
Bolivia (2014)	114'306	0.3%	12'114	
Bosnia and Herzegovina	1'273	0.1%	304	0.4
Brazil	1'136'857	0.4%	15'030	778 (2016)
Brunei Darussalam		Aquaculture only		
Bulgaria	136'629	2.9%	6'471	29
Burkina Faso	58'891	0.5%	26'626	
Burundi	83	0.004%	35 (2015)	
Cambodia	11'042	0.2%	6'760	
Cameroon	1'089	0.01%	499	

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Million €]
Canada	1'191'739	1.8%	4'800	3'002
Cape Verde	495	0.6%	1	
Chad		Wild collection only		
Channel Islands (2016)	180	1.9%		
Chile	19'415	0.1%	446 (2013)	2 (2009)
China	3'023'000	0.6%	6'308 (2016)	7'644
Colombia	31'621 (2014)	0.1%	4'775 (2011)	
Comoros	1'445	1.1%	1'540 (2015)	
Congo, D.R.	60'624	0.2%	42'323	
Cook Islands	25	1.7%	20	
Costa Rica	8'736	0.5%	50	1 (2008)
Côte d'Ivoire	50'446	0.2%	2'777	
Croatia	96'618	6.1%	4'023	99 (2014)
Cuba	6'186	0.1%	509	
Cyprus	5'616	5.1%	1'175	2 (2006)
Czech Republic	520'032	12.2%	5'275	94 (2016)
Denmark	226'307	8.6%	3'637	1'601
Dominica (2011)	240	1.0%		
Dominican Republic (2016)	205'258	8.7%	29'311	
Ecuador	41'793	0.7%	12'483 (2016)	
Egypt	105'908	2.8%	970	
El Salvador	1'677	0.1%	383	
Estonia	196'441	20.5%	1'888	42
Ethiopia (2015)	186'155	0.5%	203'602	13
Falkland Islands (Malvinas)	31'937	2.9%	4	
Faroe Islands	253	8.4%	1	
Fiji	16'604	3.9%	1'627	
Finland	259'451	11.4%	4'665	309
France	1'744'420	6.3%	36'691	7'921
French Guiana (France)	3'061	10.0%	66	
French Polynesia	1'491	3.3%	25	
Gambia	20	0.003%	1	
Georgia (2015)	1'452	0.1%	1'075	
Germany	1'373'157	8.2%	29'764	10'040
Ghana	15'323	0.1%	3'164	
Greece	410'140	5.0%	20'197 (2016)	66
Grenada (2010)	85	1.1%	3	
Guadeloupe (France)	200	0.4%	49	
Guatemala	13'380 (2011)	0.4%	3'008 (2010)	
Guinea	10	0.0001%	1	
Guinea-Bissau	835	0.1%	1	
Guyana		Wild collection only		
Haiti	5'586	0.3%	2'245	
Honduras	29'274	0.9%	6'023	
Hong Kong		Processing only		
Hungary	199'684	4.3%	3'642	30 (2015)
Iceland	20'177	1.1%	33	

Annex > Statistics > Key Data

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Million €]
India	1'780'000	1.0%	835'000	186
Indonesia	208'042	0.4%	17'948	
Iran	11'916	0.03%	3'879	
Iraq	60	0.001%		
Ireland	74'336	1.5%	1'725	206
Israel (2015)	5'758	1.1%	303	
Italy	1'908'653	15.4%	66'773	3'137
Jamaica (2016)	374	0.1%	127	1
Japan	9'956 (2016)	0.2%	2'130 (2012)	1'409
Jordan	1'446	0.1%	23	
Kazakhstan	277'145	0.1%	61	
Kenya	172'225	0.6%	44'966	3 (2016)
Kiribati	1'600	4.7%	900	
Kosovo (2015)	160	0.04%	100	
Kuwait	20	0.01%	2	
Kyrgyzstan	19'327	0.2%	1'097	
Lao P:D:R:	7'668 (2016)	0.3%	1'342 (2011)	
Latvia	268'870	14.8%	4'178	51
Lebanon	1'353	0.2%	107	
Lesotho		Wild collection only		
Liechtenstein	1'389	37.9%	45	6
Lithuania	234'134	8.1%	2'478	51
Luxembourg	5'444	4.2%	103	122
Macedonia, FYROM	2'900	0.2%	650	
Madagascar	63'954	0.2%	21'935	
Malawi	12'232	0.2%	6	
Malaysia (2013)	603	0.01%	119	
Mali	12'655	0.03%	12'272	
Malta	43	0.4%	13	
Martinique (France)	364	1.2%	55	
Mauritania		Wild collection only		
Mauritius	14	0.02%	22 (2016)	
Mayotte	41	0.3%	5	
Mexico	673'968	0.6%	210'000	14 (2013)
Moldova (2016)	30'142	1.2%	114	
Monaco		Processing only		
Montenegro	2'715	1.2%	616	0.1 (2010)
Morocco	9'175	0.03%	116	
Mozambique	12'586	0.03%	8	
Myanmar	10'248	0.1%	16	
Namibia	30'001	0.1%	23	
Nepal	9'361	0.2%	983	
Netherlands	56'203	3.0%	1'696	1'206
New Caledonia	94	0.1%	94	
New Zealand	88'871	0.8%	876	155
Nicaragua (2009)	33'621	0.7%	10'060	
Niger	254	0.001%	2	
Nigeria	53'402	0.1%	1'087 (2016)	
Niue	165	3.3%	27	
Norway	47'042	4.7%	2'070	419

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Million €]
Oman	38 (2015)	0.003%	4 (2013)	
Pakistan	51'304	0.1%	25	
Palestine, State of	5'298	1.8%	1'449	
Panama (2013)	15'183	0.7%	1'300	
Papua New Guinea	13'675	1.1%	12'749	
Paraguay	43'711	0.2%	58'258 (2014)	
Peru	315'525	1.3%	87'460	14 (2010)
Philippines	200'065	1.6%	166'001	
Poland	494'979	3.4%	20'257	235
Portugal	253'786	7.0%	4'674	21 (2011)
Puerto Rico (2016)	14	0.01%	5	
Republic of Korea	20'700	1.2%	12'896 (2016)	330
Réunion (France)	1'051	2.1%	257	
Romania	258'471	2.0%	7'908	41 (2016)
Russian Federation	656'933	0.3%	89	120 (2012)
Rwanda	1'276	0.1%	9'002	
Samoa	106'406	37.6%	2'053	
San Marino		Processing only		
Sao Tome and Principe	8'780	18.0%	3'564	
Saudi Arabia	17'075	0.01%	145	
Senegal	7'309	0.1%	18'913	
Serbia	13'423	0.4%	6'022	
Sierra Leone	101'184	2.6%	1'846	
Singapore				
Slovakia	189'148	10.0%	439	4 (2010)
Slovenia	46'222	9.5%	3'627	49 (2013)
Solomon Islands	3'927	3.6%	1'213	
Somalia		Wild collection only		
South Africa	41'377	0.04%	281	
Spain	2'082'173	8.9%	37'712	1'903
Sri Lanka	165'553	6.0%	8'703	
Sudan	130'000	0.2%	218	
Suriname	57	0.1%	1	
Swaziland	186	0.02%	2	
Sweden	576'845	18.8%	5'801	2'366
Switzerland	151'404	14.4%	6'638	2'435
Syrian Arab Republic (2010)	19'987	0.1%	2'458	
Taiwan (2015)	6'490	0.8%	2'598	
Tajikistan (2012)	12'659	0.3%	10'486	
Tanzania	278'467	0.7%	148'610 (2013)	
Thailand	91'266	0.4%	38'120	12 (2014)
Timor-Leste	31'278	8.2%	3	
Togo	39'390	1.0%	36'645	
Tonga	1'588	4.8%	1'364	
Tunisia	306'467	3.0%	7'236	
Turkey	520'886	1.4%	75'067	46 (2014)
Uganda (2016)	262'282	1.8%	210'352	
Ukraine	289'000	0.7%	304	29

Annex › Statistics › Key Data

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Million €]
United Arab Emirates	4'687	1.2%	97	
United Kingdom	497'742	2.9%	3'479	2'307
United States	2'031'318 (2016)	0.6%	14'217 (2016)	40'011
US Virgin Islands	26	0.7%	1	
Uruguay	1'882'178	13.0%	5	
Uzbekistan		Wild collection only		
Vanuatu	14'881	8.0%	3'804	
Venezuela (2015)		Processing only		
Viet Nam	58'018	0.5%	10'150	18 (2016)
Zambia	7'997	0.03%	10'061	
Zimbabwe	3'246	0.02%	2'007	0.2 (2016)
World*	69'845'243	1.4%	2'858'358	92'074

Source: FiBL survey 2019, based on data from governments, the private sector, and certifiers. For retail sales data: FiBL-AMI- survey 2019, based on data from government bodies, the private sector, and market research companies. For detailed data sources see annex, page 33 |

*Total number includes data for countries with less than three operators.

Data Providers and Data Sources

**COMPILED BY JULIA LERNOUD¹
AND HELGA WILLER²**

Afghanistan

Certifier data.

Albania

Source

- › Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Algeria

Source

- › Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Andorra

Source

- › Ecocert, 32600 L'Isle Jourdain, France

Contact

- › Emma Tsessue, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Argentina

Source

- › Land use/operator/production data: SENASA, 2018 "Situación de la Producción Orgánica en la Argentina durante el año 2017". Buenos Aires. In addition, further data was provided by SENASA, www.senasa.gov.ar
- › Export value data is from 2009.

Contact

- › Juan Carlos Ramirez and Diego Pinasco, SENASA, Buenos Aires, Argentina, www.senasa.gov.ar

Armenia

Source

- › Survey of Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia www.ecoglobe.am.

Contact

- › Nune Darbinyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia www.ecoglobe.am.

¹ Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

² Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

- › Eliza Petrosyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia

Australia

Source

- › Australian Organic (2018): Market Report 2018. Australian Organic, Nundah
- › Land use and crop data: Australian Bureau of Statistics ABS, provided by Els Wynen.

Contact

- › Andrew Monk, Chairman, Australian Organic, Nundah, Australia, www.austorganic.com
- › Andrew Lawson, University of New England, Armidale, Australia
- › Els Wynen, Eco Landuse Systems, Canberra

Austria

Sources

- › Area, land use and farms: Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, Vienna, Austria
- › Operators: Eurostat database, Eurostat, Luxembourg
- › Retail sales: RollAMA based on GfK, AMA-Marketing, Agrarmarkt Austria Marketing GesmbH, Vienna, Austria
- › Export data are from 2011 and were compiled by the Organic Retailers Association (ORA).

Contact

- › Otto Hofer, Federal Ministry of Agriculture, Forestry, Environment and Water Management (AT), Vienna, Austria
- › Barbara Köcher-Schulz, AMA-Marketing GesmbH AMA, Vienna, Austria
- › Pia Reindl, AMA-Marketing GesmbH AMA, Vienna, Austria

Azerbaijan

Source

- › Experimental and Resource Center affiliated to the Azerbaijan Botanic Center, Ganja, Azerbaijan, www.etkt.az. The data is from 2015.

Contact

- › Nick Nwolisia; Experimental and Resource Center affiliated to the Azerbaijan Botanic Center, Ganja, Azerbaijan, www.etkt.az.

Bahamas

Certifier data.

Bangladesh

Source

- › Horticulture Export Development Foundation, Dhaka, Bangladesh, www.hortex.org. For the crops, some data from an international certifier were included. The data is from 2012.

Belarus

For 2017 no data was available.

Belgium

Sources

- › Area and operator data: Landbouw en Visserij, Brussels, Belgium

- › Livestock data: Eurostat database, Eurostat, Luxembourg
- › Retail sales: Landbouw en Visserij, Brussels, Belgium

Contact

- › Ilse Timmermans, Landbouw en Visserij, Brussels, Belgium

Belize

Source

- › Survey among the certified companies in Belize.

Benin

Source

- › Survey among certifiers

Contact

- › Laurent C. Glin, FiBL Terrain, SYPROBIO-CRRA, Sikasso, République du Mali

Bermuda

Certifier data.

Bhutan

Source

- › Ministry of Agriculture (MOA), National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt

Contact

- › Kesang Tshomo, Ministry of Agriculture MOA, National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt.
- › Tshering Zam, Ministry of Agriculture MOA, National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt.

Bolivia

Source

- › Survey of the Bolivian Association of Organic Producers Organisations – AOPEB. The data is from 2014.

Contact

- › Edmundo Janco Mita, Asociación de Organizaciones de Productores Ecológicos de Bolivia AOPEB, Bolivia

Bosnia Herzegovina

Source

- › Organska Kontrola, Sarajevo, Bosnia & Herzegovina

Contact

- › Bernisa Klepo, Organska Kontrola, Sarajevo, Bosnia & Herzegovina

Brazil

Sources

- › Area data: Ministério da Agricultura, Pecuária e Abastecimento, Ministry of Agriculture website.
- › Operator data: certifier data
- › Retail sales data: Organic Brazil

Contact

- › Ming Liu, Brazil
- › Alexandre Harkaly, IBD Certificações Ltda

Brunei Darussalam

Source

- › Ecocert China, Beijing, China

Contact

- › Lisha Zheng, Ecocert China, Beijing, China

Bulgaria

Sources

- › Land area, operators: Bioselena, Karlovo, Bulgaria and Ministry of Agriculture, Bulgaria
- › Domestic market data: Boshnakova, Mila (2018): Bulgaria: Organic Market Update. GAIN Report Number BU1811. USDA, Foreign Agricultural Service, Washington

Contact

- › Dr. Stoilko Apostolov, FOA Bioselena, Karlovo, Bulgaria. www.bioselena.com

Burkina Faso

Sources

The data were compiled by FiBL based on the data of the following international certifiers.

- › CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- › Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Ecocert West Africa, Ougadougou, Burkina Faso
- › LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany

Not all certifiers provided updated data.

Contact

- › Nathalie Boes, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- › Matty Vink, Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Julian Wirth, LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany

Burundi

Source

- › Ecocert East Africa, Madagascar

Contact

- › Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Cambodia

Source

- › The data is based on a survey among organic certifiers and organisations of the organic sector in Cambodia.
- › GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org
- › Cambodian Organic Agriculture Association (COAA), Khan Chamkar Morn, Phnom Penh, Cambodia, www.coraa.org.

Contact

- › Claudius Bredehoeft, GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org

- › Channa Samorn, GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org

Cameroon

Source

- › Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com. The data is from 2014.

Canada

Source

- › Land area, producers and other operator types, market data: Survey of the Canada Organic Trade Association (COTA), Ottawa, Canada, based on information of the certifiers.

Contact

- › Jill Guerra, Canada Organic Trade Association (COTA), Ottawa, Canada, <http://ota.com/otacanada.html>

Note

See also article about organic farming in Canada in this and in previous editions of "The World of Organic Agriculture."

Cape Verde

Certifier data.

Chad

Certifier data.

Channel Islands

Source

- › FAOSTAT (2016) Organic area data Channel Islands. The FAOSTAT website, FAOSTAT, Rome, Italy, FAOSTAT > Agri-Environmental Indicators> Inputs. The data is from 2016.

Chile

Source

- › Area data, producers/ smallholders, livestock and export data: Servicio Agrícola y Ganadero (SAG) Santiago, Chile, www.sag.gob.cl.
- › Domestic market data (2009) according to USDA: Organic Products Report Chile. GAIN Report Number CI0031. November 30, 2010

Contact

- › Pilar M. Eguillor Recabarren, Oficina de Estudios y Políticas Agrarias (ODEPA), Ministerio de Agricultura, Teatinos 40, Santiago, Chile, www.odepa.gob.cl.

China

Sources

- › Land area, operators, market and export data; Chinese Agricultural University, Beijing, China

Contact

- › Dr. Wang Maohua, Certification and Accreditation Administration of the People's Republic of China CNCA
- › Yuhui Qiao, Chinese Agricultural University, Beijing, China
- › Zejiang Zhou, President, Board of IFOAM Asia, China

Colombia

Source

- › ECONEXOS, Conexión Ecológica, Calle 5 No. 45A-125, Cali, Colombia, info@econexos.org, www.econexos.com, based on a survey among the certifiers. The data is from 2014.

Contact

- › Carlos Escobar, ECONEXOS - Desarrollo en Movimiento, Cali República de Colombia, www.econexos.com.

Comoros

Source

- › Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Contact

- › Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Congo, Democratic Republic of

Certifier data.

Cook Islands

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Costa Rica

Source

- › Land area, operators and export volume data: Servicio Fitosanitario del Estado (2018): Programas Especiales/ Agricultura Orgánica. Estadísticas 2017. M.A.G Costa Rica, San José.
- › Export value (2009 data) PROMOCER (2011): Costa Rica: exportaciones de productos orgánicos según destino.
- › Domestic market data (2008) were provided by the organic sector organization MAOCO.

Contact

- › Roberto Azofeifa, Ministerio de Agricultura y Ganadería, 10094-1000 San José, Costa Rica.

Côte d'Ivoire

Sources

The data were compiled by FiBL based on the data of the following international certifiers.

- › CERTISYS, B-1150 Bruxelles, Belgium
- › Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Not all certifiers provided updated data.

Contact

- › Nathalie Boes, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- › Matty Vink, Control Union, Zwolle, The Netherlands, www.controlunion.org

Croatia

Sources

- › Area and operators: Eurostat database organic farming, Eurostat, Luxembourg
- › Wild collection data (from 2013): Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy
- › Market (from 2014) & export data (from 2011): Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia

Contact

- › Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia

Cuba

Certifier data.

Cyprus

Source

- › Land area and producer data: Department of Agriculture, Nicosia, Cyprus
- › Market data (from 2006): Organic Retailers Association, Ecozept and Biovista (eds.) (2008): Specialised Organic Retail Report 2008. Freising and Vienna 2008

Contact

- › Andreas Selearis, Department of Agriculture, Nicosia, Cyprus

Czech Republic

Source

- › Area, operators, market and international trade data: Institute of Agricultural Economics and Information (UZEI), Department of Agri-environmental Policy, 602 00 Brno, Czech Republic. The market and international trade data are from 2015.

Contact

- › Hana Šejnohová, Institute of Agricultural Economics and Information (UZEI), Department of Agri-environmental Policy, 602 00 Brno, Czech Republic
- › Andrea Hrabalova, Institute of Agricultural Economics and Information (UZEI), 602 00 Brno, Czech Republic

Denmark

Sources

- › Land area, land use, Operators: Eurostat database, Eurostat, Luxembourg
- › Domestic sales: Landbrug & Fødevarer. Based on data from Statistics Denmark (retail sales) and Organic Denmark (for other marketing channels)
- › Exports: Statistics Denmark.

Contact

- › Martin Lundoe, Statistics Denmark, Copenhagen, www.statbank.dk
- › Ejvind Pedersen, Danish Agriculture & Food Council, Agro Food Park 13, 8200 Aarhus N, Denmark

Dominica

Source

- › Division of Agriculture provided by Dominica Organic Agriculture Movement (DOAM) Inc., PO Box 1953 - Roseau, Commonwealth of Dominica. The data is from 2011

Contact

- › Ms. Aikuali Joseph, Dominica Organic Agriculture Movement (DOAM) Inc., Roseau, Commonwealth of Dominica.

Dominican Republic

Source

- › Secretaria de Estado de Agricultura, Oficina de Control Orgánico, Santa Domingo, Dominican Republic, www.agricultura.gob.do. The data is from 2016

Contact

- › José A. Zapata, Secretaria de Estado de Agricultura, Oficina de Control Orgánico, Santa Domingo, Dominican Republic, www.agricultura.gob.do.

Ecuador

Source

- › Land area, operators, exports: Agrocalidad, Quito Ecuador, www.agrocalidad.gob.ec.

Contact

- › Verónica Santillán, Agrocalidad, Quito, Ecuador

Egypt

Source

- › Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

El Salvador

Source

- › Ministerio de Agricultura y Ganadería, Final 1a. Avenida Norte, 13 Calle Poniente y Avenida Manuel, Gallardo, Santa Tecla, El Salvador

Contact

- › Jose Fernando Maldonado Cestona, Coordinador Area de Inocuidad de Alimentos y Agricultura Orgánica Ministerio de Agricultura y Ganadería Dirección General de Sanidad Vegetal, El Salvador

Estonia

Sources

- › Land area, land use, operators: Organic Farming in Estonia 2017. Compiled by the Estonian Organic Farming Foundation. Ministry of Agriculture, Republic of Estonia, Tallin.
- › Retail sales data (provisional): Estonian Institute of Economic Research, Estonia
- › Export data: Estonian Ministry of Agriculture
- › A detailed report about organic farming in Estonia can be found at <http://www.maheklubi.ee/mison/eestis/>

Contact

- › Merit Mikk, Centre of Ecological Engineering, Tartu, Estonia

Ethiopia

Source

- › Ethiopian Institute of Agricultural Research, Akaki, Ethiopia. The data is from 2015.

Contact

- › Addisu Alemayeh, Ethiopian Institute of Agricultural Research, Akaki, Ethiopia

Falkland Islands

Source

- › Department of Agriculture, Bypass Road, Stanley, Falkland Islands, www.agriculture.gov.fk.

Contact

- › Lucy Ellis, Department of Agriculture, Bypass Road, Stanley, Falkland Islands, www.agriculture.gov.fk

Faroe Islands

Source

- › Vottunarfstofan Tún ehf, Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.

Contact

- › Gunnar Gunnarsson, Vottunarfstofan Tún ehf., Reykjavík, Iceland, www.tun.is
- › Rannveig Guðleifsdóttir, Vottunarfstofan Tún ehf., Reykjavík, Iceland, www.tun.is

Fiji Islands

Sources

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Pacific Organic and Ethical Trade Community (POETCom), Suva, Fiji

Finland

Sources

- › Land area: The Finnish Food Safety Authority Evira, Finland.
- › Operators: Eurostat database, Eurostat Luxembourg.
- › Market data: Pro Luomu, Kauniainen, Finland
- › Export data (2015): Pro Luomu, Kauniainen, Finland

Contact

- › Marja-Riitta Kottila, Pro Luomu, Kauniainen, Finland
- › Minna Nurro, Pro Luomu, Kauniainen, Finland

France

Source

- › Area and operators: Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org, and Eurostat database, Eurostat Luxembourg
- › Retail sales: Agence Bio, Montreuil-sur-Bois, France
- › Export and import data: Agence Bio, Montreuil-sur-Bois, France

Contact

- › Nathalie Rison, Agence Bio, Montreuil-sur-Bois, France, www.agencebio.fr

French Guyana

Source

- › Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org.

Contact

- › Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

French Polynesia

Sources

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Gambia

Certifier data.

Georgia

Source

- › Elkana Survey, Elkana, 16 Gazapkhuili street, 0177 Tbilisi, Georgia, www.elkana.org.ge. The data is from 2015

Contact

- › Elene Shatberashvili, Biological Farming Association Elkana, 16 Gazapkhuili street, 0177 Tbilisi, Georgia, www.elkana.org.ge

Germany

Sources

- › Agrarmarkt Informations-Gesellschaft mbH (AMI), Bonn, Germany, www.ami-informiert.de.
- › Retail sales: Arbeitskreis Biomarkt (Working group organic market), coordinated by AMI based on data of GfK, Nielsen, bioVista und Klaus Braun Kommunikationsberatung.

Contact

- › Diana Schaack, Agrarmarkt Informations-Gesellschaft mbH (AMI), Bonn, Germany, www.ami-informiert.de

Ghana

Source

The data was compiled by FiBL based on the data of the following international certifiers.

- › CERTISYS, Brussels, www.certisys.eu
- › Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Ecocert West Africa, Ougadougou, Burkina Faso
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de

Contact

- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Nathalie Boes, CERTISYS, Brussels, Belgium
- › Matty Vink, Control Union, Zwolle, The Netherlands

Greece

Sources

- › Land area and operators: Eurostat database, Eurostat, Luxembourg.
- › Market data: Daso Business Performance PC, Strategy & Management Consultants, Thessaloniki, Greece
- › Wild collection data (2015) Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Contact

- › Nicolette van der Smitten, Feres, Greece

Grenada

Certifier data. The data is from 2010

Guadeloupe

Source

- › Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org.

Contact

- › Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Guatemala

Source

- › Department of Organic Agriculture, Ministerio de Agricultura, Ganadería y Alimentación (MAGA), Ciudad de Guatemala, Guatemala C.A. 01013, www2.maga.gob.gt. The data is from 2011.

Contact

- › Ing. Agr. Alvaro Alfredo Ramos Méndez, Departamento de Agricultura Orgánica, Viceministerio de Sanidad Agropecuaria y Regulaciones, Ministerio de Agricultura Ganadería y Alimentación

Guinea Bissau

Certifier data.

Guyana

Source

- › Ecocert Colombia, Bogota D.C., Colombia (wild collection only).

Contact

- › Richard Escobar, Henao, Ecocert Colombia, Bogota D.C., Colombia.

Haiti

Certifier data.

Honduras

Source

- › Agricultura Orgánica Honduras, Secretaría de Agricultura y Ganadería, Tegucigalpa, Honduras, SENASA Honduras.

Contact

- › Carlos Galo, Jefe del Departamento de Agricultura Orgánica (DAO) Sub Dirección de Sanidad Vegetal (SAVE). Servicio Nacional de Sanidad Vegetal (SENASA) Secretaría de Agricultura y Ganadería (SAG) Edificio Senasa Boulevard Centroamérica, Ave. La FAO, antes

de INJUPEMH, Tegucigalpa. M.D.C. Honduras.

Hong Kong

Certifier data.

Hungary

Sources

- › Land area and operators data: National Food Chain Safety Office, Food and Feed Safety Office, Food Trade Control Department, Hungary, www.nebih.gov.hu
- › Market and trade data (2015): Survey/Estimate by Ferenc Frühwald, Budapest, Hungary

Contact

- › Dora Drexler, ÖMKI, Budapest, Hungary, www.biokutats.hu

Iceland

Source

- › Vottunarfstofan Tún ehf. Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.

Contact

- › Gunnar Gunnarsson, Vottunarfstofan Tún ehf., Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is
- › Rannveig Guðleifsdóttir, Vottunarfstofan Tún ehf., Reykjavík, Iceland, www.tun.is

India

Source

- › Land area, operators, exports: Agricultural and Processed Food Products Export Development (APEDA) Ministry of Commerce & Industry, Government of India, New Delhi - 110 016, India, www.apeda.com.
- › Retail sales data: ICCOA- International Competence Centre for Organic Agriculture, Karnataka, India

Contact

- › Manoj Kumar Menon, International Competence Centre for Organic Agriculture ICCOA, Bangalore, India
- › Note: In 2017, there were additional 286'211 hectares PGS certified. The data is available at: <http://pgsindia-ncof.gov.in>

Indonesia

Source

- › Indonesian Organic Alliance, Bangor, Indonesia (www.organicindonesia.org). Survey among the certifiers active in the country.

Contact

- › Lidya Ariesusanty, lidya.arie@gmail.com

Iran

Source

- › Environmental Sciences Research Institute, Shahid Beheshti University ESRI, Evin, Tehran, Iran. The information is based on the data of the certifiers' active in the country.

Contact

- › Hossein Mahmoudi, Environmental Sciences Research Institute, Shahid Beheshti University ESRI, Tehran, Iran. E-mail :aseman421@gmail.com

Iraq

Source

- › Zakho Small Villages Projects (ZSVP), Dohuk City, Dohuk, Iraq

Contact

- › Dr. Abid Ali Hasan, Zakho Small Villages Projects (ZSVP), Program Coordinator in Iraq, Dohuk City, Dohuk, Iraq

Ireland

Source

- › Area, operators and livestock data: Eurostat, Luxembourg
- › Market data: Bord Bia, Dublin, Ireland, The retail sales presented here are a Bord Bia extrapolation of the Kantar panel data and hence not comparable to the total organic retail sales of the previous years.

Contact

- › Lorcan Burke, Bord Bia, Dublin, Ireland

Israel

Source

- › Standardization and Accreditation Department Ministry of Agriculture and Rural Development Plant Protection and Inspection Services (PPIS), Israel, www.ppiseng.moag.gov.il/ppiseng/ISRAEL. The data is from 2015.

Contact

- › Tal Weil Tzamere, Standardization and Accreditation Department, Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services (PPIS), Israel

Note: at the time of publishing new data was received. For 2017, the total organic agricultural area for Israel was 6'568 hectares, and there were a total of 335 organic producers.

Italy

Sources

- › Operator, primary crops, livestock products, imports: SINAB (2018): Bio in Cifre 2018. SINAB, Rome, Italy
- › Market: Nomisma (2018): Tutti i numeri del bio. Presentation at Sana 2018, September 7-10, Bologna, Italy.

Contact

- › Roberto Pinton, Assobio, 35121 Padova, Italy
- › Silvia Zucconi, Nomisma, Bologna, Italy

Jamaica

Source

- › Jamaica Organic Movement JOAM, P.O. Box 5728, Kingston 6, Jamaica, www.joamltd.org. The data is from 2016

Contact

- › Trevor Brown, Jamaica Organic Movement JOAM, www.joamltd.org

Japan

Source

- › Area and producer data: Ministry of Agriculture, Forestry and Fisheries (MAFF), Tokyo 100 - 8950, Japan, www.maff.go.jp/e/index.html. The data is from 2016
- › Domestic market data: Yano Research Institute Ltd, Japan.

Contact

- › Heinz Kuhlmann, ABC Enterprises, Tokyo, Japan
- › Miyoshi Satoko, Global Organic Textile Standard (GOTS) Japan, Tokyo, Japan

Jordan

Source

- › Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Kazakhstan

Source

- › Certifier data.

Contact

- › Evgeniy Klimov, Kazakhstan Federation of Organic Agriculture Movements - KAZFOAM, Kazakhstan, www.organiccenter.kz

Kenya

Source

- › Kenya Organic Movement (KOAN), Nairobi, Kenya, www.koan.co.ke. Export and retail sales data is from 2016.

Contact

- › Jack Juma, Kenya Organic Movement (KOAN), Nairobi, Kenya, www.koan.co.ke

Kiribati

Sources

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Korea, Republic of

Source

- › Korea Rural Economic Institute (KREI), Republic of Korea.

Contact

- › Jennifer Chang, Korean Federation of Organic Agriculture Organisations (KFSA), Republic of Korea

Kosovo

Source

- › Initiative for agricultural development of Kosovo (IADK), Mitrovica, Republic of Kosovo. Data is from 2015.

Contact

- › Syle Sylanaaj, Faculty of Agriculture & Veterinary-Department of Pomology, University of Prishtina, Republic of Kosovo

Kuwait

Source

- › Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Contact

- › Tovohery Ramahaimandimbisoa, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Kyrgyzstan

Source

- › Agricultural Commodity and Service Cooperative "Bio Farmer", Kyrgyzstan. To this data, the data of two international certifiers was added.

Contact

- › Gulzaada Aleshova, Helvetas, Jalalabad, Kyrgyzstan

Lao People's Democratic Republic

Source

- › Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos. The data is from 2016.

Contact

- › Thavisith Bounyasouk, Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos

Latvia

Source

- › Area and Operators: Eurostat database, Eurostat, Luxembourg
- › Market data: Retail sales and export data: Moreganic Sourcing AB (2018) : Baltic Organic Market Report 2018/2019. Moreganic Sourcing, Uppsala, Sweden

Contact

- › Livija Zarina, State Priekuli Plant Breeding Institute SPPBI, Priekuli, Cesis distr, Latvia

Lebanon

Source

- › Source: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Lesotho

Certifier data.

Liechtenstein

Source

- › Klaus Büchel Anstalt, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.

Contact

- › Florian Bernardi and Klaus Büchel, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.

Lithuania

Source

- › Land area, production volume, operators: Eurostat database, Eurostat, Luxembourg
- › Market data: Retail sales and export data: Moreganic Sourcing AB (2018): Baltic Organic Market Report 2018/2019. Moreganic Sourcing, Uppsala, Sweden

Contact

- › Virginija Luksiene, Ekoagros, Kaunas, Lithuania
- › Virgilijus Skulskis, Lithuanian Institute of Agri Economics, Vilnius, Lithuania

Luxembourg

Source

- › Land area and operator data: Administration des Services Techniques de l'Agriculture, Service de la protection des végétaux, 16, route d'Esch, L-1470 Luxembourg, www.asta.etat.lu
- › Market data: Oekopolis estimate based on turnover data of the specialized shops and supermarkets, Oikopolis, Munsbach, Luxembourg

Contact

- › Monique Faber-Decker, Ministère de l'Agriculture, de la Viticulture et de la Protection des consommateurs, Luxembourg, www.asta.etat.lu
- › Aender Schanck, Biogros, 13 Parc d'Activité Syrdall, L-5365 Munsbach, www.biogros.lu

Macedonia, the Former Yugoslav Republic

Source

- › Source: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy
- › Wild collection: Certifier data

Madagascar

Certifier data.

Malawi

Source

The data were compiled by FiBL based on the data of the following international certifiers.

- › Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Ecocert Southern Africa, Gardens Cape Town, www.ecocert.com
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de

Contact

- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town
- › Matty Vink, Control Union, Zwolle, The Netherlands

Malaysia

Source

- › Department of Agriculture, Malaysia.

Contact

- › Ong Kung Wai, Humus Consultancy, Penang, Malaysia

Mali

Certifier data

Malta

Source: Eurostat, Luxembourg

Martinique (France)

Source

- › Agence Bio, Montreuil-sur-Bois, France.
www.agencebio.org

Contact

- › Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

Mauritius

Source

- › Ecocert West Africa, Ougadougou, Burkina Faso

Mauritius

Source

- › Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Contact

- › Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com

Mayotte

Source

- › Agence Bio, Montreuil-sur-Bois, France.
www.agencebio.org

Contact

- › Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

Mexico

Source

- › Universidad Autónoma Chapingo, based on data of the certifiers. The data is from 2016.

Contact

- › Rita Schwentesius, Universidad Autónoma Chapingo, Carretera México - Texcoco Km. 38.5. Chapingo, México

Moldova

Source

- › Ministry of Agriculture, Regional Development and Environment of Moldova, Department for Organic Production and Products of Origin, Chişinău, Moldova. Data are based on information from control bodies. The data is from 2016.

Contact

- › Marcela Stahil, Chief of the Department for Organic Production and Products of Origin, Ministry of Agriculture, Regional Development and Environment of Moldova, Chişinău, Moldova

Monaco

Certifier data.

Mongolia

The certifier who provided data in the past did not report any activities any more. Any information on certified organic farming in Mongolia should be sent to Julia Lernoud or Helga Willer at julia.lernoud@fibl.org and helga.willer@fibl.org.

Montenegro

Source

- › Ministry of Agriculture and Rural Development, Podgorica, Montenegro
- › Market data (from 2010): Ecozept - Market research and marketing consulting agency. Freising, Germany

Contact

- › Andrijana Rakočević, Advisor for Organic production, Ministry of Agriculture and Rural Development, Podgorica, Montenegro

Morocco

Sources

- › AMABIO, Casa Blanca, Morocco, www.amabio.org

Contact

- › Zaoui Elhousseine, AMABIO/FIMABIO, Casa Blanca, Morocco, www.amabio.org

Mozambique

Sources

- › Control Union, Zwolle, The Netherlands
- › Ecocert, South Africa, Capetown, South Africa
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de

Contact

- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Cliflyn McKenzie, Ecocert South Africa, Capetown, South Africa
- › Matty Vink, Control Union, Zwolle, The Netherlands

Myanmar

Source

- › Certifier data

Contact

- › San Linn, Myanmar Organic Agriculture Group, Yangon, Myanmar

Namibia

Source

- › Namibian Organic Association, PO Box 1504, Okahandja, Namibia, the data of one international certifier was included, and PGS figures were included. Data from 2015.

Contact

- › Manjo Smith, Namibian Organic Association (NOA), PO Box 1504, Okahandja, Namibia

Nepal

Source

- › The data were provided by Maheswar Ghimire, Kathmandu, Nepal.

Contact

- › Maheswar Ghimire, Kathmandu, Nepal

Netherlands

Sources

- › Land area and operator data: Eurostat database, Eurostat, Luxembourg.
- › Retail sales and exports data: Bionext, Zeist, The Netherlands; the Bionext website, available at <https://bionext.nl/feiten-cijfers>. The export data is from 2016

Contact

- › Bavo van der Idsert, Bionext, Utrecht, The Netherlands.

New Caledonia

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int;

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

New Zealand

Source

- › 2018 New Zealand Organic Sector Market Report. Organics Aotearoa New Zealand, Wellington, New Zealand, www.oanz.org.nz.

Contact

- › Jon Manhire, the AgriBusiness Group, Christchurch, New Zealand, www.agribusinessgroup.com

Nicaragua

Source

- › Ministerio Agropecuario y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni
The data was supplemented with data from an international certifier. The data is from 2009.

Contact

- › Ministerio Agropecuario y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni

Niger

Certifier data.

Nigeria

Source

- › Association of Organic Agriculture Practitioners of Nigeria (NOAN), Ibadan, Nigeria, and University of Ibadan, Nigeria The data includes PGS area.

Contact

- › Olugbenga O. AdeOluwa, University of Ibadan, Nigeria

Niue

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Norway

Sources

- › Land area and operator data: Eurostat database, Eurostat, Luxembourg

- › Market data: Norwegian Agriculture Agency, Oslo, Norway.

Contact

- › Alexandra Forbord, Norwegian Agriculture Agency, Oslo, Norway
- › Julie Kilde Mjelva, Norwegian Agriculture Agency, Oslo, Norway

Oman

Source

- › Organic Plant Production and Agroecosystems Research in the Tropics and Subtropics, Kassel University, Witzenhausen, Germany, www.uni-kassel.de/agrar/?language=en. The data is from 2015.

Pakistan

Certifier data.

Palestine, State of

- › Area for agricultural land, production, beehives, total wild collection area: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Panamá

Source

- › Ministerio de Desarrollo Agropecuario, Dirección Nacional de Sanidad Vegetal, Panama, www.mida.gob.pa. The data is from 2013.

Contact

- › Fermín Romero, Dirección Nacional de Sanidad Vegetal, Ministerio de Desarrollo Agropecuario, Panama, www.mida.gob.pa

Papua New Guinea

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Paraguay

Source

- › Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, Department of Organic Agriculture, Asuncion, Paraguay, www.senave.gov.py

Contact

- › Genaro Coronel, Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, Department of Organic Agriculture, Asuncion, Paraguay, www.senave.gov.py

Perú

Source

- › Area and number of producers: SENASA. Producción Orgánica. Lima, Perú
- › Market (2010) and export (2015) data: Promperu, San Isidro - Lima 27 Perú, www.promperu.gob.pe. The total value of domestic market is an estimate, based the data

from Promperu that the domestic market is between 13.1 and 23.2 million US dollars (2010).

Contact

- › Dr. Jorge Leonardo Jave Nakayo, Director de Producción Orgánica, Ministerio de Agricultura, SENASA, Peru

Philippines

Sources

The data were compiled by FiBL from a number of certifiers, but there are more certifiers active than those listed below.

Certifiers who provided data

- › Ceres, Happburg, Germany, www.ceres-cert.com;
- › Control Union, Zwolle, The Netherlands, www.controlunion.org;
- › Ecocert, L'Isle Jourdain, France, www.ecocert.com;
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Organic Certification Center of the Philippines OCCP (2009 data), Barangay Laging Handa, Quezon City, Philippines, www.occp.phils.org.

Contact

- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de;
- › Simone Groh, Ceres, Happburg, Germany, www.ceres-cert.com;
- › Camille Godard, Area Manager, Ecocert, L'Isle Jourdain, France, www.ecocert.com;
- › Lani Katimbang-Limpin, OCCP, Quezon City, Philippines, www.occp.phils.org
- › Matty Vink, Control Union, Zwolle, The Netherlands, www.controlunion.org.

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Poland

Source

- › Land area and land use, livestock and production: Department of Promotion and Food Quality, Ministry of Agriculture and Rural Development, Poland.
- › Market data: Fresh Plaza (2017): Poland: Organic market has great potential to grow. The Fresh Plaza website. PKO Bank Polski.

Contact

- › Bartosz Pytlak, Organic Farming Unit, Ministry of Agriculture and Rural Development, Warsaw, Poland, www.minrol.gov.pl

Portugal

Source

- › Organic land and operators: Eurostat database, Luxembourg
- › Market data (2011): INTERBIO, <http://www.interbio.pt>

Contact

- › Catarina Crisostomo, Portugal

Puerto Rico

Certifier data.

Réunion

Source

- › Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org

Contact

- › Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Romania

Sources

- › Organic area, land use, livestock and production: Eurostat database, Luxembourg.
- › Wild collection: Ministry of Agriculture MADR, Bucharest, Romania, see <http://www.madr.ro/ro/agricultura-ecologica/dinamica-operatorilor-si-a-suprafetelor-in-agricultura-ecologica.html>. The data is from 2014.
- › International trade data (from 2011): BCG-Global Advisors (2013) Romanian Organic Sector – Business Insight Booklet. Global Advisors, Bio-Romania Association, University of Bucharest. Bucharest 2012
- › Retail sales data: Dobrescu, Monica (2017): Romania: Organic production and market overview. GAIN Report No. RO 1702. The USDA FAS website. USDA, Washington. The data is from 2016.

Contact

- › Iulia Grosulescu, Counsellor Organic Farming Office, Ministry of Agriculture and Rural Development, 24, Blvd Carol I, Bucharest Romania

Russian Federation

Source

The data was compiled by FiBL based on the data of the following international.

- › Bio.Inspecta, Frick, Switzerland, www.bio-inspecta.ch
- › Control Union, Zwolle, The Netherlands, www.controlunion.org;
- › Ecocert China, Beijing, China
- › Ecocert IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey
- › Eco-control Ltd., 141506 Solnechnogorsk, Russia, www.eco-control.ru. Not all certifiers provided updated data.
- › Ekoagros, Kaunas, Lithuania
- › Istituto per la Certificazione Etica e Ambientale (ICEA), Bologna. Italy, www.icea.info
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de

Contact

- › Mustafa Avci, General manager, ECOCERT IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey
- › Milena Belli, Istituto per la Certificazione Etica e Ambientale (ICEA), Bologna, Italy, www.icea.info
- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Matty Vink, Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Virginija Luksiene, Ekoagros, Kaunas, Lithuania
- › Weimin YU, Project Manager, Ecocert China, Beijing, China
- › Ulrike Zdralek, Bio.Inspecta, Frick, Switzerland, www.bio-inspecta.ch

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provide updates every year.

Rwanda

Certifier data.

Samoa

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

San Marino

Certifier data.

Sao Tome and Principe

Source

- › National Directorate of Planning, Ministry of Finance, Trade and Blue Economy, São Tome and Principe, www.financas.st

Contact

- › Geisel de Menezes, Director of Planning and Prospective, Min. of Finance, Commerce and Blue Economy, São Tome and Principe, www.financas.st

Saudi Arabia

Source

- › Department of Organic Agriculture (DOA), <http://moa.gov.sa/organice/portale>

Contact

- › Eng. Ayman Saad Al-Ghamdi, General Manager of Organic Agriculture Department (DOA), Saudi Arabia
- › Raed Saleh Almusaylim; Manager of Control & Legislation Section, Department of Organic Production, Riyadh, Saudi Arabia

Senegal

Source

- › National Federation for Organic Agriculture, AGRECOL BP. 347 Thiès, Sénégal. Data from international certifiers was added. The export data is from 2012.

Contact

- › Ibrahima Seck, National Federation for Organic Agriculture, AGRECOL, BP. 347 Thiès, Sénégal
- › Famara Diedhioe, National Federation for Organic Agriculture, AGRECOL, BP. 347 Thiès, Sénégal

Serbia

Source

- › Ministry of Agriculture, Forestry and Water Management, Belgrade, Republic of Serbia. The import data is from 2012 and the export data is from 2016.

Contact

- › Ivana Simic, General secretary, National Association "Serbia Organica", Belgrade, Serbia; www.serbiaorganica.org

Sierra Leone

Certifier data.

Singapore

Certifier data.

Slovakia

Sources

- › Area, operators, livestock, and crop production: Eurostat database, Luxembourg
- › Market data (2010): Ecozept, market research and marketing consulting agency. Freising, Germany

Slovenia

Sources

- › Area, operators, livestock, crop production: Ministrstvo za kmetijstvo, gozdarstvo in prehrano-Ministry of Agriculture, Forestry and Food, SI-1000 Ljubljana, Slovenia, www.mkgp.gov.si
- › Domestic market data (from 2103): Institute for Sustainable Development, Ljubljana, Slovenia
- › Marketing channels (from 2009): Institute for Sustainable Development, Ljubljana, Slovenia
- › Exports and imports (from 2009): Institute for Sustainable Development, Ljubljana, Slovenia

Contact

- › Anamarija Slabe, Institute for Sustainable Development, Ljubljana, Ljubljana, Slovenia
- › Maja Zibert, Ministrstvo za kmetijstvo, gozdarstvo in prehrano-Ministry of Agriculture, Forestry and Food, SI-1000 Ljubljana, Slovenia, www.mkgp.gov.si

Solomon Islands

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Somalia

Certifier data.

South Africa**Source**

The data were compiled by FiBL based on the data of the following international certifiers.

- › Control Union, Zwolle, The Netherlands, www.controlunion.org
- › Ecocert Southern Africa, Gardens Cape Town, www.ecocert.com
- › Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Soil Association, Bristol, United Kingdom, www.soilassociation.org

Please note that not all certifiers provided updated data.

Contact

- › Andrew Bayliss, Soil Association, Bristol, United Kingdom
- › Tobias Fischer, Kiwa BCS, Nürnberg, Germany, www.bcs-oeko.de
- › Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town
- › Matty Vink, Control Union, Zwolle, The Netherlands

Spain**Sources**

- › Area and land use, operators: Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente(2017): Estrategias de vertebración del sector de la producción ecológica de España – Año 2017. MAPAMA, Madrid
- › Market and international trade data MAPAMA - Ministerio de Agricultura, Pesca y Alimentación (MAPA) (2018) Caracterización y análisis de la viabilidad de una organización interprofesional agroalimentaria en el sector de la producción ecológica de España. MAPA, Madrid.

Contact

- › Pedro López, Pro-Voc-Association, Madrid, Spain, www.provotec.es
- › Joan Picazos, Biocop Productos Biológicos, S.A. (BIOCOP), Lliçà de vall (Barcelona), Spain, www.biocop.es

Sri Lanka**Source**

- › Lanka Organic Agriculture Movement (LOAM), Nawinna, Maharagama, Sri Lanka, survey among the international certifiers.

Contact

- › Thilak Kariyawasam Lanka Organic Agriculture Movement (LOAM), Nawinna, Maharagama, Sri Lanka.

Sudan (former)**Sources**

- › Federal Ministry of Agriculture & Irrigation Export Development & Quality Control Unit, Republic of the Sudan. Data on wild collection from one international certifier were included. Data from 2014

Contact

- › Afaf Abdelrahman Elgzouly, Federal Ministry of Agriculture & Irrigation Export Development & Quality Control Unit, Sudan

Suriname

Certifier data.

Swaziland

Certifier data.

Sweden**Sources**

- › Area, livestock and operators: Eurostat database, Luxembourg
- › Market data: Ecoweb Sweden. Please note that the data source was changed from Statistics Sweden to Ecoweb, also for historical data.-Per capita consumption and growth rates were recalculated.

Contact

- › Cecilia Ryegård, Ecoweb, Sweden.

Switzerland**Sources**

- › Land area and crop data, producers: Federal Agency for Statistics (BfS), Neuchatel, Switzerland.
- › Operator data: Bio Suisse, Basel, Switzerland
- › Market data: Bio Suisse, Basel, Switzerland, www.biosuisse.ch/de/bioin zahlen.php.

Contact

- › Helga Willer, FiBL, Frick, Switzerland

Syria

- › Source for all data: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIEAM Bari), Bari, Italy
- › No separate figure for the number of producers was available; the figure communicated is that for all operators in the country.

All data is from 2010.

Taiwan**Source**

- › Taiwan Organic Agriculture Information Centre. Statistics 1996-2015 at <http://info.organic.org.tw/supergood/front/bin/ptlist.phtml?Category=104854>, Agricultural and Food Agency, Council of Agriculture, Taiwan. The data is from 2015.

Tajikistan**Source**

- › SAS - SUGDAGROSERV, 2 Baraka Boboeva, Khujand 735700, Tajikistan. (Data 2012).

Contact

- › Javohir Eshmatov, SAS - Sugdagroserve, 2 Baraka Boboeva, Khujand 735700, Tajikistan.

Tanzania**Source**

- › Tanzania Organic Agriculture Movement (TOAM), PO Box 70089, Dar es Salaam,

Tanzania, www.kilimohai.net. Survey among the organic operators in the country.

Contact

- › Jordan Gama, Tanzania Organic Agriculture Movement (TOAM), PO Box 70089, Dar es Salaam, Tanzania, www.kilimohai.net.

Thailand

Source

- › Green Net Survey among the international and domestic certifiers; Green Net, 10330 Bangkok, Thailand. Domestic market and international trade data is from 2014.

Contact

- › Vitoon Panyakul, Green Net, 10330 Bangkok, Thailand, www.greennet.or.th.

Timor-Leste

Certifier data.

Togo

Sources

The data was compiled by FiBL based on the data of the following international certifiers. Not all certifiers provided updated information.

- › CERTISYS, Brussels, Belgium, www.certisys.eu
- › Ecocert, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com
- › LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany

Contact

- › Nathalie Boes, CERTISYS, Brussels, Belgium
- › Julian Wirth, LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany

Tonga

Sources

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Tunisia

Source

- › Direction Générale de L'Agriculture Biologique (DGAB), Tunis, Tunisia.

Contact

- › Samia Maamer Belkhiria, Direction Générale de L'Agriculture Biologique (DGAB), Ministry of Agriculture and Hydraulic Resources, Tunis, Tunisia

Turkey

Source

- › Ministry of Food, Agriculture and Livestock (MoFAL), Ankara, Turkey
- › Market data (2014): Estimate by Erdal Süngü, MoFAL, Ankara, Turkey

Contact

- › Elif Bayraktar Öktem, Ministry of Food, Agriculture and Livestock, Ankara, Turkey

Notes

Some areas contain crops that can be harvested from the same parcel. Therefore, the total of the land use/crop data exceeds the actual area surface cultivated for organic farming. A correction value was used in order to calculate the correct total.

Uganda

Source

- › National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug. The data is from 2016.

Contact

- › Hedwig Tushemerirwe, National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug.

Ukraine

Sources

- › Area and operator data: Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine
- › Crop data: Estimate of FiBL Switzerland and Agricultural Information Company AMI based on data of the Organic Federation of Ukraine, Agricultural Information Company AMI and Ministry of Agrarian Policy and Food of Ukraine
- › Market and wild collection data: Organic Federation of Ukraine (OFU), Kyiv, Ukraine, www.organic.com.ua

Contact

- › Eugene Chebotariov, Expert of the working group "Developing Organic Production and Niche Crops", Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine, organic@minagro.gov.ua; www.minagro.gov.ua/en
- › Eugene Milovanov, Organic Federation of Ukraine, Kyiv, Ukraine, www.organic.com.ua

United Arab Emirates

Source

- › Ministry of Environment and Water (MOEW), United Arab Emirates.

Contact

- › Eng. Saif Mohamed Alshara, Ministry of Environment and Water, UAE
- › Fatima Obaid Saeed, Ministry of Environment and Water, UAE
- › Mohammad Al-Oun (PhD), Organic Farming, Plant Health and Development Department, Dubai, UAE

United Kingdom

Sources

- › Land use details/crops/operators: Eurostat database, Eurostat, Luxembourg

- › Market data: Soil Association (2018): Organic Market Report 2018. Soil Association, Bristol. The export data is from 2016.

Contacts

- › Dr. Susanne Padel, The Organic Research Centre Elm Farm, Newbury, UK, www.organicresearchcentre.com
- › Finn Cottle, Soil Association, Bristol, UK

United States of America

Source

- › Land area and producers: United States Department of Agriculture, Washington, USA. Available at http://usda.mannlib.cornell.edu/usda/current/OrganicProduction/OrganicProduction-09-20-2017_correction.pdf. The data is from 2016.
- › Market data: Organic Trade Association (2018): Maturing U.S. organic sector sees steady growth of 6.4 percent in 2017. Website of the Organic Trade Association, Washington D.C. Available at: <https://ota.com/news/press-releases/20236>
- › Export data: USDA provided by Barbara Haumann, OTA, Brattleboro VT 05301, www.ota.com. The data is from 2016.

Contact

- › Catherine Greene, United States Department of Agriculture, Washington, USA, www.ers.usda.gov/briefing/organic/.
- › Barbara Haumann, OTA, Brattleboro VT 05301, www.ota.com

United States Virgin Islands

Certifier data.

Uruguay

Source

- › Certifier data.

Contact

- › Betty Mandl, Ministerio de Ganadería, Agricultura y Pesca (MGAP), Montevideo, Uruguay, www.mgap.gub.uy

Uzbekistan

Certifier data. The data is from 2010.

Vanuatu

Source

- › Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- › Karen Mapusua, Secretariat of the Pacific Community (SPC), Suva Fiji, www.spc.int

Venezuela

United States Department of Agriculture (USDA) Organic Integrity Database. USDA, Washington

Viet Nam

Source

- › Vietnam Organic Agriculture Association, Hanoi, Vietnam. Please note that PGS figures were included

Contact

- › Nhung Tu Thi Tuyet, Vietnam Organic Agriculture Association, Hanoi, Vietnam

Zambia

Certifier data.

Zimbabwe

Source

- › Zimbabwe Organic Producers and Promoters Association, Zimbabwe. The data of one international certifier was included.

Contact

- › Tichaona T. Charova, Zimbabwe Organic Producers and Promoters Association ZOPPA, Harare, Zimbabwe

FiBL Survey on Organic Agriculture Worldwide – Metadata

HELGA WILLER¹ AND JULIA LERNOUD²

For the 20th survey on organic agriculture worldwide, data on organic agriculture were available for 181 countries. Since 1999, when the data collection started, at that time carried out by the Germany-based Foundation Ecology and Agriculture (SÖL), the number of countries included has more than doubled. The survey is funded by the Swiss State Secretariat of Economic Affairs (SECO), the International Trade Centre (ITC), the Sustainability fund of Coop Switzerland, and NürnbergMesse, the organizers of the Biofach trade fair. In the following article, the data collection, processing, and publication process are described. This description follows the structure of the reference metadata provided by Eurostat for its data collection on organic agriculture covering the European Union, the EFTA countries and the EU candidate countries (Eurostat 2018).

1 Contact

Research Institute of Organic Agriculture, Department of Socioeconomics and Department of Extension, Training, and Communication, Ackerstrasse 113, 5070 Frick, Switzerland, www.fibl.org, julia.lernoud@fibl.org and helga.willer@fibl.org, www.fibl.org

2 Metadata update

The metadata on the global survey on organic agriculture were first compiled in January 2017 and updated in January 2019. It is planned to include more details and update them regularly. They are available at www.organic-world.net/statistics.html.

3 Statistical presentation

3.1 Data description

The purpose of the data collection on organic agriculture worldwide is to display an overview

of the uptake of organic farming globally.

Data is collected on the following indicators:

- › Area: country totals, land use, crops, including level of conversion
- › Livestock: by animal type
- › Production: value and volume
- › Operators: by operator type: in numbers
- › Retail sales: country totals and by product, value and volume
- › International trade: country totals and by product, value and volume

As for some of the indicators, data is incomplete or not comparable over the years, not all data that are collected by FiBL are published.

3.2 Classification system

For area, livestock, and primary production data, a classification similar to that which Eurostat uses for its questionnaire for organic farming and its organic farming database is applied (Eurostat 2019). This classification has been expanded to cover tropical and other crops that are not grown in Europe.

Classification for data on area and crop production:

- › Arable land crops: Cereals, dry pulses and protein crops, oilseeds, root crops, flowers and ornamental plants, vegetables and strawberries, textile crops, medicinal and aromatic plants, mushrooms, plants harvested green, sugarcane, other arable land crops, and fallow land as part of the crop rotation;
- › Permanent crops: Berries, citrus fruit, cocoa, coconuts, coffee, grapes, medicinal and aromatic plants, nuts, olives, temperate fruit, tropical and subtropical fruit, tea, and other permanent crops;
- › Permanent grassland (pastures and meadows);
- › Other areas such as fallow land, hedges, and ponds.

Classification for livestock:

- › Bovine animals: Bovine animals for meat production; bovine animals not for meat production, dairy cows, suckler cows
- › Pigs: Breeding sows, fattening pigs, other pigs
- › Sheep: Ewes, breeding females, other sheep
- › Goats: Breeding females, other goats
- › Poultry: Broilers, laying hens, other poultry
- › Horses, bees, and other livestock

For retail sales and international trade data, the classification is based on Eurostat's CPA (Statistical Classification of Products by Activity in the European Economic Community, Eurostat

¹Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

²Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

2008). However, several modifications were made to cover the needs of the organic data. This classification was used in the framework of the European funded OrganicDataNetwork project (www.organicdatanetwork.net) and FiBL aims to develop it further.

Classification for manufactured food products:

- › Bakery and farinaceous products
- › Beverages
- › Dairy products
- › Grain mill products, starches, and starch products
- › Preserved meat and meat products
- › Processed and preserved fish, crustaceans, and molluscs
- › Processed and preserved fruit and vegetables
- › Vegetable and animal oils and fats

For **non-manufactured plant products**, the same classification as for primary products is used (see above).

Many data suppliers provide the data only in an aggregated way, and the groupings of data differ from country to country, thus hindering data comparisons. This applies particularly to retail sales data.

3.3 Coverage – sector

- › Area: Area of agricultural holdings certified organic by certification/inspection bodies and Participatory Guarantee Systems
- › Livestock: Livestock on agricultural holdings certified organic by certification/inspection bodies
- › Production: Production of agricultural holdings certified organic by certification/inspection bodies
- › Operators: The data collected covers all different types of operators certified organic by certification/inspection bodies or Participatory Guarantee Systems (producers, processors, importers, exporters, collectors, others)
- › Retail sales and international trade: Retail sales and international trade products with organic certification.

The systematic inclusion of PGS-certified areas and operators is still pending.

3.4 Statistical concepts and definitions

For the FiBL survey on organic agriculture worldwide, data on certified organic production and trade according to international and national organic standards and legislation are used (Huber & Schmid 2019). Most of these are covered by the IFOAM Family of Standards (IFOAM - Organics International 2018).

3.5 Statistical unit

Statistical units are certified agricultural holdings, producers, processors, importers, and exporters as well as production, retail sales, exports and imports of certified organic products.

3.6 Statistical population

For all indicators, FiBL aims to cover the total organic area, livestock numbers, production, aquaculture products, retail sales, exports and imports.

3.7 Reference area

The FiBL survey aims to cover all countries of the world. Currently, 181 countries and territories are covered. For countries and territories, the FAO country list is used (FAOSTAT 2018), and the designation "country" is used to cover countries or territories. As to the country grouping by region, the Standard Country and Area Classification, as defined by the United Nations Statistics Division (2014) is used in most cases. However, other than the UN classification, Cyprus and Turkey have been allocated to Europe, as Cyprus is a member of the European Union (EU), and Turkey is an EU candidate country. Furthermore, Kosovo is included.

3.8 Coverage - Time

Data is available from 1999 onwards.

4 Unit of measure

4.1 Unit of measure

- › Area: Hectares
- › Livestock: In heads (definitions pending for non-ruminants – if average stock or animals slaughtered is used).
- › Bees: In number of hives
- › Aquaculture products: In metric tons
- › Volume of production, retail sales, imports, exports: Metric tons
- › Value of production, retail sales, imports, exports: Million euros
- › Operators: Number

Values are often reported to FiBL in currencies other than the euro; in such cases, they are converted to euros according to the average exchange rate for the year in question as communicated by the European Central Bank (www.ecb.europa.eu).

5 Reference Period

The data refers to December 31 of the respective year. However, it is not possible for all countries or certifiers to provide data per that date. If new data is not received, data of the previous year or older data is used. Explanations and details referring to the reference period can be found on

the Organic-World.net website at www.organic-world.net/statistics/statistics-data-tables/ow-statistics-data-key-data.html.

6 Institutional Mandate

6.1 Institutional Mandate - legal acts and other agreements

There is no institutional mandate to deliver data on organic agriculture to FiBL.

A cooperation agreement with the member countries of the Interamerican Commission of Organic Agriculture (CIAO), aiming at intensifying collaboration in the area of organic data collection, is underway.

7 Confidentiality

7.1 Confidentiality – policy

Whenever requested by the data suppliers, some of the data is kept confidential and is made available only in aggregated form. This is particularly the case for data provided by international certifiers.

If there are less than three operators in a country, their number is not shown in most cases.

7.2 Confidentiality - data treatment

In general, however, the number of statistical units is big enough, even in smaller countries, that treatment of confidentiality is not relevant.

8 Release policy

8.1 Release calendar

The publication date – every year at the first day of the Biofach Organic Trade Fair in Nuremberg, Germany – is announced on the Organic-World.net website and on FiBL.org. The release is also announced in the annual publication, “The World of Organic Agriculture.”

8.2 Release calendar access

The release date (annual event at Biofach in February) is publically available at the calendar of events at www.organic-world.net and www.fibl.org.

8.3 Release policy - user access

Most data is publically available without cost (online on statistics.fibl.org and www.organic-world.net). The printed version of the yearbook “The World of Organic Agriculture” can be obtained at the FiBL online shop (shop.fibl.org).

9 Frequency of dissemination

Data is released each February (print and online).

10 Accessibility and clarity

The statistics are disseminated via a number of dissemination channels maintained by the Research Institute of Organic Agriculture and in collaboration with the IFOAM - Organics International.

10.1 Dissemination format - News release

The publication of the data is announced with a press release, which is sent to media worldwide. The press release is published on the websites of FiBL and IFOAM - Organics International and on FiBL’s www.organic-world.net website, FiBL’s social media channels, and [Twitter.com/FiBLStatistics](https://twitter.com/FiBLStatistics).

10.2 Dissemination format - Publications

The data is published in the yearbook “The World of Organic Agriculture”, which is available in hard copy (published by FiBL and IFOAM - Organics International) and as a PDF document online ([at www.organic-world.net/yearbook.html](http://www.organic-world.net/yearbook.html)).

10.3 Dissemination format - online database

Furthermore, the data is made available in online data tables (interactive tables, and interactive map) on <https://statistics.fibl.org>.

10.4 Dissemination format - microdata access

Data other than the published figures is usually not made available; however, upon special request, certain data sets may be released.

10.5 Dissemination format - other

Data on organic agriculture in Europe is made available in the form of interactive infographics on the website of IFOAM EU at www.ifoam-eu.org/en/what-we-do/organic-europe.

10.6 Documentation on methodology

The preparation of the documentation of methodology is in progress.

10.7 Quality management - documentation

A data management handbook is under development.

11 Quality management

11.1 Quality assurance

While entering data into the FiBL questionnaire, totals and subtotals are automatically generated, thus providing a first basic quality check for the data providers.

The questionnaire was programmed by flexinfo (www.flexinfo.ch) for automatic data entering into the FiBL database, thus avoiding mistakes that could otherwise happen when entering data from the questionnaire manually.

Systematic data validation, including comparisons with data from other sources, is described under 18.4 – data validation.

12 Relevance

12.1 Relevance - User Needs

Users are stakeholders of the organic industry, government bodies, development agencies, policy makers, researchers, and the media. FAOSTAT uses the data for its land use database (FAO 2018), and Agence Bio uses the data for its

annual compilation of the global statistics in French (Agence Bio 2018).

12.2 Relevance - User Satisfaction

User requirements are not systematically surveyed. However, the use of the data is monitored and documented on www.organic-world.net, twitter.com/FiBLStatistics, and the FiBL Facebook page.

12.3 Completeness

Completeness depends on the indicator. Almost all countries have data on area. Most have data on operators, but less on livestock, production, retail sales, and international trade. This means that there are many data gaps, but in addition, data that exists on certain indicators, is often not complete.

- › For some countries, the data provided on areas, operators and production are not complete, as the data collection system does not have access to the data from all certifiers. Therefore, it can be assumed that the extent of organic agriculture is larger than documented by the FiBL survey.
- › Data on conversion level is not available from all countries. Furthermore, for some countries, data is collated from several certifiers, some of which provide information on the conversion status while others do not. Therefore, in these cases, the sum of land under conversion and the fully converted land is not necessarily the same as the total land under organic agricultural management.
- › Reporting precise figures on the number of organic producers remains difficult, as some countries report only the numbers of companies, projects, or grower groups, which may each comprise a number of individual producers.
- › Not all countries reported the number of processors, exporters, importers, hence the global number on these operator types remains incomplete.
- › Retail sales by product are often based on samples and therefore not always complete.

Not all countries provide annual updates. In these cases, FiBL uses the data from the previous year in order to produce plausible data on organic agriculture worldwide. In a specific document, FiBL reports the data year.

13 Accuracy

13.1 Accuracy - overall

For area, production, and livestock data, usually, the organic regulations foresee the annual control of every operator, and, therefore, no sample is required for area, production, livestock, and operator data, even though some countries base these data on surveys using samples. Also, retail sales data (for breakdown by product) is often based on samples.

14 Timeliness and punctuality

14.1 Timeliness

In general, data needs to be submitted in October at the latest for inclusion in the following edition of "The World of Organic Agriculture."

14.2 Punctuality

Data that is not received in time is included into FiBL's database and published at a later stage.

15 Coherence and comparability

15.1 Comparability - geographical

The harmonised questionnaire intends to guarantee a certain geographical comparability between countries and territories. However, not all data providers use the questionnaire and there are differences in definitions (e.g. in the case of livestock); therefore comparability is somewhat limited.

15.2 Comparability - over time

With each survey data from additional countries and territories is found, for half of the countries, data dating back to the early 2000s is available. Whenever historical data becomes available, it is included in the database.

Occasionally, data sources and data providers are changing or more complete data was received, which limits the comparability over time in some cases.

15.3 Coherence - cross domain

The figures can be compared with data from other sources within FAOSTAT, Eurostat, or national databases. This is mainly done in order to calculate organic shares of totals and to validate data.

15.4 Coherence - internal

Coherence amongst the various tables and within the tables is checked.

16 Cost and burden

The data collected by FiBL is based on national data sources, data from certifiers, and market research companies. The FiBL effort for the annual data collection and related activities (media work, publication, enquiries, database development, data revisions) amounts to at least eight months annually.

17 Data revision

17.1 Data revision - policy

There is no systematic revision of the data. Data are revised whenever better and more accurate figures are provided.

17.2 Data revision - practice

The FiBL database is updated when revised data are received.

Major data revisions are communicated on the Organic-World.net website and statistics.fibl.org, and corrigenda (including corrections of data) for “The World of Organic Agriculture” are posted at www.organic-world.net/yearbook.html.

18 Statistical processing

18.1 Source data

The survey aims to include all organic actors with data on operators, areas, livestock, production, retail sales, and international trade. The data on the different indicators are collected among multiple data sources and from many data providers, varying from country to country. As regards data on area, livestock numbers, production, and operators, which are usually based on certifier data, FiBL collects the data from government sources (published sources or e-mail contact). This data is mostly complete; however, some countries do not have access to the data from foreign certifiers that are not registered under the country’s accreditation system. In other cases, the private sector collates this data from the certifiers or among the organic operators. However, often, the private sector does not have full access to the data. Finally, there are countries that have no data collection system in place. For these countries, FiBL receives the data from major international certifiers. Again, this data is often not complete, or there is a problem with continuity over the years.

The data on the various indicators can be based on the following sources:

Area, production, livestock, and operator data:

- › Data from the certifiers/control bodies: often compiled by control authorities, local experts or national organic movements;
- › Statistical offices (agricultural census/farm structure survey);
- › Survey among enterprises producing organic products: usually compiled by the private sector;
- › Estimations (only for production volume): for example, for some purposes, FiBL calculates/estimates the production data (e.g. Lernoud et al. 2018) based on the organic area data, using standard yields as provided by FAO and adapting them

according to FiBL assumptions on organic yields.

Retail sales data:

- › Market research companies based on household or trade panel data;
- › Statistical offices: surveys among all retailers;
- › Surveys of the private sector among retailers;
- › Expert estimations.

International trade data:

- › Statistical offices;
- › Market research companies: using multiple sources including customs data;
- › Government agencies: for example, export promotion companies;
- › Control authorities: based on data from certifiers/control bodies;
- › Surveys of the private sector among exporters and importers.

Details for each data source are provided in the annex of the annual publication of “The World of Organic Agriculture” (Willer & Lernoud 2019). In the case of the European Union, data on area, production, livestock and operators is collated by Eurostat, the statistical office of the European Union, based on official national data. For many European countries, Eurostat data is used for the global survey on organic agriculture worldwide..

18.2 Frequency of data collection

Data has been collected annually since 2000.

18.3 Data collection

Data is collected from a wide range of data providers with an MS Excel-based questionnaire, consisting of several sheets (an overview sheet for the country totals for each indicator, one for area and primary production, one for livestock and livestock products, one for operators, and one for retail sales and international trade).

In some cases, Internet sources are used (e.g. the Eurostat organic farming database).

18.4 Data validation

The first step of validation is the carried out while entering data into the FiBL questionnaire, an MS Excel file with several sheets for the individual indicators, allowing for a first quality check by generating totals and subtotals. Subsequently, data is entered into the FiBL database, and once stored, data is checked using pivot tables linked to the database. Basic checks such as a comparison with the previous year and the overall total, are carried out. After data validation, data providers are asked to check incoherent figures or/and outliers and possibly

to revise their data when no satisfying explanation is provided.

In a specific document (available online), FiBL provides explanation and further information on data.

18.5 Data compilation

Validated data is the basis for the compilation of subtotals and totals at regional and global level, the calculation of organic shares (shares of total area, livestock, production, and retail sales), of the per capita consumption, and of growth rates.

18.6 Adjustment

If data suppliers provide updates or corrections at a later stage, these are included in the database.

19 Comment

For all additional information on the indicators (operators, area and production, livestock, and products of animal origin), please consult our Statistics website at

<https://statistics.fibl.org/data-info.html>

20 Other

Global Survey on Voluntary Sustainability Standards (VSS): The Research Institute of Organic Agriculture FiBL has recently expanded its data collection activities to further standards. The project "Global Survey on Voluntary Sustainability Standards (VSS)," which started in 2014, aims to set up a system to collect, process, and disseminate market data on Voluntary Sustainability Standards (VSS) across all geographic regions (Lernoud et al. 2018). Data collection is carried out by FiBL; the results are published jointly with the International Trade Centre (ITC) and the International Institute of Sustainable Development (IISD). The next edition of this report will be published in 2019.

Further reading

Agence Bio (2018): La Bio dans le monde. Agence Bio Montreuil. Available at https://www.agencebio.org/wp-content/uploads/2018/10/carnet_monde_2017.pdf

- Eurostat (2008): Statistical Classification of Products by Activity in the European Economic Community, 2008 version. The website of Eurostat, Luxembourg. Available at <http://ec.europa.eu/eurostat/ramon/index.cfm>
- Eurostat (2018): Organic farming (org). Reference Metadata in Euro SDMX Metadata Structure (ESMS). Compiling agency: Eurostat, the statistical office of the European Union. Available at the website of Eurostat, Luxembourg at http://ec.europa.eu/eurostat/cache/metadata/en/org_esms.htm
- Eurostat (2019): Database organic farming. The website of Eurostat, Luxembourg. Available at <http://ec.europa.eu/eurostat/web/agriculture/data/database>
- FAO (2018): Land use data. The FAOSTAT website, Food and Agriculture Organisation of the United Nations, Rome. Available at <http://www.fao.org/faostat/en/#data/RL>
- Huber, B. and Schmid, O. (2019): Public Standards and Legislation. Willer, H. and Lernoud J., (2019): The World of Organic Agriculture. Research Institute of Organic Agriculture (FiBL) and IFOAM - Organics International. Frick and Bonn. Available at <http://www.organic-world.net/yearbook.html>
- IFOAM - Organics International (2018): IFOAM Family of Standards. The website of IFOAM - Organics International, Bonn. Available at <http://www.ifoam.bio/en/ifoam-family-standards-0>
- Lernoud, J., et al. (2018): The State of Sustainable Markets: Statistics and Emerging Trends 2018. FiBL-IIS-ITC Report, International Trade Centre, Geneva.
- OrganicDataNetwork (Ed.) (2014a) OrMaCode – Organic Market data MAnual and CODE of Practice - Manual and Code of Practice for the initiation and maintenance of good organic market data collection and publication procedures. Università Politecnica delle Marche, Ancona, Italy.
- OrganicDataNetwork (2014b) D7.1 Data Network for better European Organic Market Information - Recommendations. Università Politecnica delle Marche, Ancona, Italy.
- United Nations Statistics Division (2014) (Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings. The UNSTAT website of the United Nations Statistics Division, New York. Available at <http://unstats.un.org/unsd/methods/m49/m49regin.htm>